

PROGRAMS OF INSTRUCTION

A.A.—Associate of Arts

A.S.—Associate of Science

A.A.S.—Associate of Applied Science

A.G.S.—Associate of General Studies

*Indicates programs that are also offered online

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PROGRAMS OF INSTRUCTION

DEGREE REQUIREMENTS

Customized Articulation Agreements

In addition to our transferable Associate of Arts and Associate of Science degrees, the College has established customized transfer articulation agreements for the following “normal” nontransferable programs. This allows students to transfer directly into four-year degree programs. Please meet with an advisor to ensure correct course selection to meet transfer agreement requirements.

CCCS articulation agreements can be found at www.cccs.edu/EdService/Transfer.html.

Associate of Arts Degree Core

Students completing any guaranteed Transfer Course as listed on page 26 of the College Catalog are guaranteed acceptance of the course at any public four-year college or university in Colorado.

The new State Guaranteed Transfer Courses and the new Colorado Community College General Education requirements have been incorporated into the degree. Students who complete a 60 credit hour A.A. degree with appropriate course requirements and grades of “C” or better may be able to complete a Baccalaureate degree in 60 additional credits after transferring to a four-year public institution. Consult your ACC Advisor about Colorado’s 60 + 60 plans.

NOTE: This guarantee excludes majors in Education, Business, Engineering and Nursing.

General Education Core

I. Communications (9 credit hours)

ENG	121	English Composition I	3
ENG	122	English Composition II	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication	3

II. Art and Humanities (6-9 credit hours)

Select at least two courses with no more than two courses from any one category:

Art

ART	110	Art Appreciation	3
ART	111	Art History I	3
ART	112	Art History II	3
MUS	120	Music Appreciation	3
MUS	121	Introduction to Music History I	3
MUS	122	Introduction to Music History II	3
THE	105	Introduction to Theatre Arts	3
THE	211	Development of Theatre I	3
THE	212	Development of Theatre II	3

Literature & Humanities

HUM	121	Early Civilizations	3
HUM	122	From Medieval to Modern	3
HUM	123	The Modern World	3
LIT	115	Intro to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3
LIT	205	Ethnic Literature	3
LIT	211	Survey of American Lit I	3
LIT	212	Survey of American Lit II	3
LIT	221	Survey of British Lit I	3
LIT	222	Survey of British Lit II	3

Ways of Thinking

PHI	111	Intro to Philosophy	3
PHI	112	Ethics	3
PHI	113	Logic	3

Foreign Language

FRE	211	French III	3
FRE	212	French IV	3
SPA	211	Spanish III	3
SPA	212	Spanish IV	3
JPN	211	Japanese III	3
JPN	212	Japanese IV	3

III. Mathematics (3 credit hours minimum)

MAT	120	Mathematics for Liberal Arts	4
MAT	121	College Algebra	4
MAT	122	College Trigonometry	3
MAT	123	Finite Mathematics	4
MAT	125	Survey of Calculus	4
MAT	135	Introduction to Statistics	3
MAT	201	Calculus I	5
MAT	202	Calculus II	5

IV. Social and Behavioral Sciences (6-9 credit hours)

Select at least two courses, one of which must be history, with no more than two courses from any one category.

Economic and Political Systems

ECO	201	Principles of Macroeconomics	3
ECO	202	Principles of Microeconomics	3
POS	111	American Government	3
POS	105	Introduction to Political Science	3

Human Behavior and Social Systems

ANT	101	Cultural Anthropology	3
ANT	111	Physical Anthropology	3
PSY	101	General Psychology I	3
PSY	102	General Psychology II	3
PSY	235	Human Growth and Development	3
SOC	101	Intro to Sociology I	3
SOC	102	Intro to Sociology II	3

Geography

GEO	105	World Regional Geography	3
GEO	106	Human Geography	3

History

HIS	101	Western Civilization I	3
HIS	102	Western Civilization II	3
HIS	201	U.S. History I	3
HIS	202	U.S. History II	3
HIS	247	Contemporary World History	3

V. Physical and Life Science (8 credit hours)

Select two courses. (Credits over 8 will be applied to the electives category.)

AST	101	Astronomy I	4
AST	102	Astronomy II	4
BIO	105	Science of Biology	4
BIO	111	General College Biology I with Lab	5
BIO	112	General College Biology II with Lab	5
BIO	201	Human Anatomy and Physiology I	4
BIO	202	Human Anatomy and Physiology II	4
BIO	204	Microbiology	4
CHE	101	Introduction to Chemistry I with Lab	5
CHE	102	Introduction to Chemistry II with Lab	5

CHE	111	General College Chemistry I with Lab	5
CHE	112	General College Chemistry II with Lab	5
GEY	111	Physical Geology	4
GEY	121	Historical Geology	4
PHY	105	Conceptual Physics	4
PHY	111	Physics: Algebra-Based I with Lab	5
PHY	112	Physics: Algebra-Based II with Lab	5
PHY	211	Physics: Calculus-Based I with Lab	5
PHY	212	Physics: Calculus-Based II with Lab	5

VI. Electives (21 credit hours)

Courses from the following list must be selected to bring the total credit hours to 60. Please note that in some disciplines only certain courses apply.

ACC (121, 122 only), ANT, ASL (121, 122 only) AST, ART, BIO (100 or above), BUS (115, 216, 217 only), CHE, CIS (only the following: 115, 118), CSC (160, 161, 225, 230 only), ECO, ECE (101, 102, 111, 205, 220, 226, 285 only), EDU, ENG (131 or above), GEO, GEY, HIS, HON, HUM, HWE (108, 124 only), JOU, LIT, MME, MAT (MAT 120 or higher), MUS, PED, PHI, PHR, PHY (PHY 105 or above), POS, PSY, SCI (155, 156), SOC, SPA 114, SPE, THE and any foreign language numbered 111-112, 211-212.

Total 60

*Not all independent study or special topics courses may apply.

Associate of Arts Degree–Business Transfer Emphasis

See also A.A.S., Business Administration

The Associate of Arts degree with a Business Transfer Emphasis is designed for the student who wishes to transfer to a Colorado four-year public college or university. Students who complete this program, maintain a minimum 2.0 cumulative GPA and earn a ' or better in all courses shall be fully considered for admission into the business programs offered by state four-year public colleges or universities. This agreement does not guarantee admission to the School of Business. However, it does guarantee that admitted students who follow the condition of this agreement will be guaranteed complete transfer of the A.A. degree up to the maximum allowable course credits. If a student is offered admission, the student will enter with junior standing in the School of Business, provided that the A.A. degree includes all courses specified below.

Students who have earned two-year degrees other than the A.A. in Business or who have not fully completed the degree requirements will be evaluated on a course-by-course basis. Individual business courses may transfer and count toward the graduation requirements for a four-year business degree, but the transferable courses are limited to the course equivalents of the courses specified in the curricula of the four-year Business Administration degree programs. The four-year college or university will accept all eligible credits earned within ten years of transfer. Courses earned more than 10 years earlier will be evaluated on an individual basis. Students should review the business degree requirements of the four-year college or university of their interest when making plans to transfer.

This agreement is between the Colorado community colleges and the following Colorado public four-year institutions

of higher education: Adams State College, Colorado State University, Colorado State University-Pueblo, Fort Lewis College, Mesa State College, Metropolitan State College of Denver, University of Colorado at Boulder, University of Colorado at Colorado Springs, University of Colorado at Denver, University of Northern Colorado and Western State College.

General Education Requirements (40 credit hours)

Communications (9 credit hours)

ENG	121	English Composition I	3
ENG	122	English Composition II	3
SPE	115	Public Speaking	3

Mathematics (8 credit hours)

MAT	123	Finite Mathematics OR	
MAT	121	College Algebra	4
MAT	125	Survey of Calculus	4

Social Sciences (9 credit hours)

ECO	201	Principles of Macroeconomics	3
ECO	202	Principles of Microeconomics	3

Select one History Elective from the following list:

HIS	101	Western Civilization I	3
HIS	102	Western Civilization II	3
HIS	201	U.S. History I	3
HIS	202	U.S. History II	3
HIS247		Contemporary World History	3

Arts & Humanities (6 credit hours)

Select two Arts & Humanities Electives from the following list:

ART	110	Appreciation	3
ART	111	Art History I	3
ART	112	Art History II	3
HUM	121	Early Civilizations	3
HUM	122	From Medieval to Modern	3
HUM	123	The Modern World	3
FRE	211	French III	3
FRE	212	French IV	3
SPA	211	Spanish III	3
SPA	212	Spanish IV	3
JPN	211	Japanese III	3
JPN	212	Japanese IV	3
LIT	115	Introduction to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3
LIT	205	Ethnic Literature	3
LIT	211	Survey of American Lit I	3
LIT	212	Survey of American Lit II	3
LIT	221	Survey of British Lit I	3
LIT	222	Survey of British Lit II	3
MUS	120	Music Appreciation	3
MUS	121	Introduction to Music History I	3
MUS	122	Introduction to Music History II	3
PHI	111	Introduction to Philosophy	3
PHI	112	Ethics	3
PHI	113	Logic	3
THE	105	Introduction to Theatre Arts	3
THE	211	Development of Theatre I	3
THE	212	Development of Theatre II	3

Science (8 credit hours)

Select two lab-based science courses from the following list: (Credits over 8 may be applied to the electives category at the four-year institution.)

AST	101	Astronomy I	4
AST	102	Astronomy II	4
BIO	105	Science of Biology	4

BIO	111	General College Biology I with Lab	5
BIO	112	General College Biology II with Lab	5
BIO	201	Human Anatomy and Physiology I	4
BIO	202	Human Anatomy and Physiology II	4
BIO204 Microbiology			4
CHE	101	Introduction to Chemistry I with Lab	5
CHE	102	Introduction to Chemistry II with Lab	5
CHE	111	General College Chemistry II with Lab	5
CHE	112	General College Chemistry II with Lab	5
GEY	111	Physical Geology	4
GEY	121	Historical Geology	4
PHY	105	Conceptual Physics	4
PHY	111	Physics: Algebra-Based I with Lab	5
PHY	112	Physics: Algebra-Based II with Lab	5
PHY	211	Physics: Calculus-Based I with Lab	5
PHY	212	Physics: Calculus-Based II with Lab	5
Business Graduation Requirements (20 credit hours)			
Accounting (8 credit hours)			
ACC	121	Principles of Accounting I	4
ACC	122	Principles of Accounting II	4
General Business (12 credit hours)			
BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
BUS	217	Business Communications	3
BUS	226	Business Statistics	3
Total credit hours for Associate of Arts Business			60 credit hours

NOTE: This degree will be conferred as an **Associate of Arts, Business Transfer Emphasis** will not be listed on student's transcript or diploma, but will be recognized by transfer institutions for program admission.

Associate of Arts, Elementary Education Transfer

Statewide Elementary Education Transfer Agreement

The Associate of Arts degree with an Elementary Education Transfer Emphasis is designed for the community college student who wishes to transfer to a Colorado 4-year public college or university to receive a Bachelor's degree with an Elementary Education teacher licensure. Students who complete the program at the community college, receiving a "C" or better (B- or better in ENG 121) will be considered for admission at Colorado public institutions of higher education.

Student must develop a graduation plan with a Teacher Education advisor that identifies the first 41 hours that are guaranteed to transfer to all teacher education programs at the following Colorado public 4-year institutions of higher education: Adams State College (Interdisciplinary Studies); Colorado State University at Pueblo (Liberal Studies), Fort Lewis College (Interdisciplinary Studies), Mesa State College (Liberal Arts), Metropolitan State College of Denver (Behavioral Science and Human Development), University of Colorado at Boulder (History), University of Colorado at Colorado Springs (English, History/Social Studies, Modern Foreign Languages, Science, Mathematics), University of Colorado at Denver and Health Sciences Center Downtown Denver (Individually Structured Major), University of Northern Colorado (Interdisciplinary Studies), Western State College (Interdisciplinary Studies).

To complete the A.A. graduation requirements, students who have completed or are currently enrolled in courses that

will total the first 41 credits will apply to a specific teacher education program and be advised on the final 19 credits guaranteed to transfer.

General Education Requirements (36 credit hours)			
English (6 credit hours)			
ENG	121	College Composition ("B-" or better)	3
ENG	122	Composition II	3
Speech			
SPE	115		3
Math (6 credit hours)			
MAT	155	Integrated Math I	3
MAT	156	Integrated Math II	3
Humanities (3 credit hours)			
Choose one from the following:			
LIT	115	Introduction to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3
LIT	211	Survey of American Literature I	3
LIT	221	Survey of British Literature I	3
Science (12 credit hours)			
SCI	155	Integrated Science I	4
SCI	156	Integrated Science II	4
Social Sciences (9 credit hours)			
GEO	105	World Regional Geography	3
HIS	201	U.S. History I	3
POS	111	American Government	3
Education Requirements (6 credit hours)			
EDU	221	Introduction to Education	3
PSY	238	Child Development	3

Electives based on transfer institution (19 credit hours)
Consult an advisor and the transfer institution to determine appropriate electives

Total General Education/Education Credits	41
Total Electives determined by transfer institution	19
Associate of Arts, Elementary Education Transfer Total Credits	60

Associate of Arts Degree—Music Emphasis

Core Curriculum Required (38 credit hours)
May include MUS 120 Music Appreciation, 3 credits (MUST include MUS 121 and 122 Music History I and II, 6 credits)

MUS Core Classes:

MUS	110/112*	Music Theory/SS/ET I Lab	4 credits
MUS	111/113	Music Theory/SS/ET II Lab	4 credits
MUS	131**	Music Class	2 credits
Total			10 credits

*Students with no background in theory should take Music Fundamentals (MUS 100) or pass an equivalency exam before taking MUS 110/112.

**Piano majors should take Guitar or Voice Class. Voice, Instrumental and Theory/Composition majors should take Piano Class unless already having a strong background in piano, in which case either Guitar or Voice class should be taken.

MUS Area of Emphasis:

Piano/voice/instrument majors:

A) Private lessons: four semesters from MUS 141, 142, 241, 242, 243, 244 (2 credits each)

OR

Theory/composition majors:

B) Private instrument/voice: two semesters from MUS 141, 142, 241, 242 (2 credits each)

AND

Private composition: two semesters from MUS 241, 242, 243, 244(2 credits each) (8 credit hours)

AND

Ensemble (chorus/inst.):

MUS 151, 152, 251, 252 (1 credit each) (4 credit hours)

OR OPTION C

Music industry/business/technology majors

C) Music Business (MUS 167 or 275—course soon to be included in CCCNS) (3 credits)

Private lessons: 4 credits from MUS 141, 142, 241, 242, 243, 244 (2 credits each)

Ensemble: 2 credits from MUS 151, 152, 251, 252 (1 credit each)

Other class or independent study related to subject, such as Music Recording or History of Jazz MUS 125 (3 credits)

Total for option C 12 credit hours

Total 60 credit hours

NOTE: This degree will be conferred as an **Associate of Arts, Music Emphasis** will not be listed on student’s transcript or diploma, but will be recognized by transfer institutions for program admission.

Associate of Science Degree Core

Students successfully completing any Guaranteed Transfer Courses are guaranteed acceptance of the course at any public four-year college or university in Colorado.

The State Guaranteed Transfer Courses and the Colorado Community College General Education requirements have been incorporated into the degree. Students who complete a 60 credit hour A.S. degree with appropriate course requirements and grades of “C” or better may be able to complete a Baccalaureate degree in 60 additional credits after transferring to a four-year public institution. Consult your ACC Advisor about Colorado’s 60 + 60 agreement.

NOTE: This guarantee excludes majors in Education, Business, Engineering and Nursing.

General Education Core

I. Communications (9 credit hours)

ENG	121	English Composition I	3
ENG	122	English Composition II	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication	3

II. Arts and Humanities (6-9 credit hours)

Select at least two courses with no more than two courses from any one category:

Art

ART	110	Art Appreciation	3
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ART	111	Art History I	3
ART	112	Art History II	3
FRE	211	French III	3
FRE	212	French IV	3
SPA	211	Spanish III	3
SPA	212	Spanish IV	3
JPN	211	Japanese III	3
JPN	212	Japanese IV	3
MUS	120	Music Appreciation	3
MUS	121	Introduction to Music History I	3
MUS	122	Introduction to Music History II	3
THE	105	Introduction to Theatre Arts	3
THE	211	Development of Theatre I	3
THE	212	Development of Theatre II	3

Literature and Humanities

HUM	121	Early Civilizations	3
HUM	122	From Medieval to Modern	3
HUM	123	The Modern World	3
LIT	115	Introduction to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3
LIT	205	Ethnic Literature	3
LIT	211	Survey of American Lit I	3
LIT	212	Survey of American Lit II	3
LIT	221	Survey of British Lit I	3
LIT	222	Survey of British Lit II	3

Ways of Thinking

PHI	111	Intro to Philosophy	3
PHI	112	Ethics	3
PHI	113	Logic	3

Foreign Language

FRE	211	French III	3
FRE	212	French IV	3
SPA	211	Spanish III	3
SPA	212	Spanish IV	3
JPN	211	Japanese III	3
JPN	212	Japanese IV	3

III. Mathematics (4 credit hours minimum)

MAT	121	College Algebra	4
MAT	122	College Trigonometry	3
MAT	201	Calculus I	5
MAT	202	Calculus II	5

IV. Social and Behavioral Sciences (6-9 credit hours)

Select at least two courses, one of which must be history, with no more than two courses from any one category.

Economic and Political Systems

ECO	201	Principles of Macroeconomics	3
ECO	202	Principles of Microeconomics	3
POS	105	Introduction to Political Science	3
POS	111	American Government	3

Geography

GEO	105	World Regional Geography	3
GEO	106	Human Geography	3

History

HIS	101	Western Civilization I	3
HIS	102	Western Civilization II	3
HIS	201	U.S. History I	3
HIS	202	U.S. History II	3
HIS	247	Contemporary World History	3

Human Behavior and Social Systems

ANT	101	Cultural Anthropology	3
ANT	111	Physical Anthropology	3

PSY	101	General Psychology I	3
PSY	102	General Psychology II	3
PSY	235	Human Growth and Development	3
SOC	101	Intro to Sociology I	3
SOC	102	Intro to Sociology 11	3

V. Physical and Life Science (8 credit hours)

Select two courses. (Credits over 8 will be applied to the electives category.)

AST	101	Astronomy I	4
AST	102	Astronomy II	4
BIO	111	General College Biology I with Lab	5
BIO	112	General College Biology II with Lab	5
BIO	201	Human Anatomy and Physiology I	4
BIO	202	Human Anatomy and Physiology II	4
BIO	204	Microbiology	4
CHE	101	Introduction to Chemistry I with Lab	5
CHE	111	General College Chemistry I with Lab	5
CHE	112	General College Chemistry II with Lab	5
GEY	111	Physical Geology	4
GEY	121	Historical Geology	4
PHY	111	Physics: Algebra-Based I with Lab	5
PHY	112	Physics: Algebra-Based II with Lab	5
PHY	211	Physics: Calculus-Based I with Lab	5
PHY	212	Physics: Calculus-Based II with Lab	5

VI. Restricted Math/Science Electives (21 credit hours)

Courses from the following list must be selected to bring the total credit hours to 60. Please note that in some disciplines only certain courses apply. Associate of Science students should work with an advisor to select courses appropriate to their major.

AST, BIO (100 or above), CHE, CIS (only the following: 115, 118), CSC (only the following: 160, 161, 225, 230), EGG, GEY, MAT (MAT 121 or above), PHY (*PHY 111 or above).

Total 60 credit hours

*Not all independent study or special topics courses may apply.

Associate of General Studies Degree Requirements

I. Communications (9 credit hours)

Select 2 courses:

*ENG	121	English Composition I	3
*ENG	122	English Composition II	3
ENG	131	Technical Writing I	3

Select 1 course:

SPE	115	Public Speaking	3
SPE	125	Interpersonal Communication	3
SPE	225	Organizational Communication	3

II. Humanities (9 credit hours)

*ART	110	Art Appreciation	3
*ART	111	Art History I	3
*ART	112	Art History II	3
ART	121	Drawing	3
ART	138	Photography I	3
ART	141	Jewelry and Metalwork I	3
ART	161	Ceramics I	3
ART	211	Painting I	3
ART	231	Watercolor I	3

Foreign Language I-II: ARA, CHI, FRE, JPN, LAT, SPA, 111-112 5

Foreign Language III: FRE, JPN, LAT, SPA 211 3

Foreign Language IV: FRE, JPN, LAT, SPA 212 3

ASL121-122 American Sign Language 5

*HIS 101 Western Civilization I 3

*HIS 102 Western Civilization II 3

*HIS 201 U.S. History I 3

*HIS 202 U.S. History II 3

*HIS 247 Contemporary World History 3

*HUM 121 Early Civilizations 3

*HUM 122 From Medieval to Modern 3

*HUM 123 The Modern World 3

*LIT 115 Intro to Literature I 3

*LIT 201 Masterpieces of Literature I 3

*LIT 202 Masterpieces of Literature II 3

*LIT 205 Ethnic Literature 3

*LIT 211 Survey of American Literature I 3

*LIT 212 Survey of American Literature II 3

*LIT 221 Survey of British Literature I 3

*LIT 222 Survey of British Literature II 3

LIT 255 Children's Literature 3

MUS 100 Fundamentals of Music Theory 3

*MUS 120 Music Appreciation 3

*MUS 121 Intro to Music History I 3

*MUS 122 Intro to Music History II 3

*PHI 111 Intro to Philosophy 3

*PHI 112 Ethics 3

*PHI 113 Logic 3

SPE 115 Public Speaking 3

SPE 125 Interpersonal Communication 3

SPE 225 Organizational Communication 3

*THE 105 Intro to Theatre Arts 3

*THE 211 Development of Theatre I 3

*THE 212 Development of Theatre II 3

III. Social Sciences (9 credit hours)

*ANT 101 Cultural Anthropology 3

ANT 107 Intro to Archaeology 3

*ANT 111 Physical Anthropology 3

ECO 105 Intro to Economics 3

*ECO 201 Principles of Macroeconomics 3

*ECO 202 Principles of Microeconomics 3

ECO 205 Contemporary Economic Issues 3

*GEO 105 World Regional Geography 3

*GEO 106 Human Geography 3

GEO 107 Physical Geography 3

GEO 165 Human Ecology 3

*HIS 101 Western Civilization I 3

*HIS 102 Western Civilization II 3

*HIS 201 U.S. History I 3

*HIS 202 U.S. History II 3

*HIS 247 Contemporary World History 3

*POS 105 Intro to Political Science 3

*POS 111 American Government 3

POS 125 American State and Local Government 3

POS 205 International Relations 3

POS 216 Comparative Government 3

*PSY 101 General Psychology I 3

*PSY 102 General Psychology II 3

PSY 116 Stress Management 3

*PSY 235 Human Growth and Development 3

*SOC 101 Intro to Sociology I 3

*SOC 102 Intro to Sociology II 3

SOC	205	Marriage and The Family	3
SOC	215	Contemporary Social Problems	3

IV. Sciences (3 credit hours)

*ANT	111	Physical Anthropology	3
*AST	101	Astronomy I	4
*AST	102	Astronomy II	4
*BIO	105	Science of Biology	4
*BIO	111	General College Biology I	5
*BIO	112	General College Biology II	5
BIO	115	Human Genetics	3
*BIO	201	Human Anatomy and Physiology I	4
*BIO	202	Human Anatomy and Physiology II	4
BIO	204	Microbiology	4
*CHE	101	Intro to Chemistry I	5
*CHE	102	Intro to Chemistry II	5
*CHE	111	General College Chemistry I/Lab	5
*CHE	112	General College Chemistry II/Lab	5
CIS	115	Intro to Computer Information Systems	3
CIS	118	Intro to PC Applications	3
CSC	150	Visual Basic Programming	3
CSC	160	Computer Science I (Java)	4
CSC	161	Computer Science II (Java)	4
*GEY	111	Physical Geology	4
*GEY	121	Historical Geology	4
PHY	100	Elementary Physics	3
*PHY	105	Conceptual Physics	4
*PHY	111	Physics: Algebra-Based I	5
*PHY	112	Physics: Algebra-Based II	5
*PHY	211	Physics: Calculus-Based I	5
*PHY	212	Physics: Calculus-Based II	5
SCI	155	Integrated Science I	4
SCI	156	Integrated Science II	4

V. Math (MAT 120 or above) (3 credit hours)

*MAT	120	Mathematics for Liberal Arts	4
*MAT	121	College Algebra	4
*MAT	122	College Trigonometry	3
*MAT	123	Finite Mathematics	4
*MAT	125	Survey of Calculus	4
*MAT	135	Intro to Statistics	3
*MAT	155	Integrated Math I	3
*MAT	156	Integrated Math II	3
MAT	179	Computer Applications for Statistics	1
*MAT	201	Calculus I	5
*MAT	202	Calculus II	5

VI. Electives (26 credit hours)

Selected from any credit-bearing course numbered at or above 100 which is offered by the College.

¹MAT courses must be numbered 120 or above. ENG courses must be numbered 121 or above. Foreign Language must be numbered 111-112, 211-212, ASL 121-122, SPA 114.

*Courses marked with an asterisk are a part of the General Transfer Curriculum (GT 25).

Total 61 credit hours

**Associate of General Studies
Broadband Technical Management**

The following A.G.S. degree in Broadband Technical Management was designed by ACC and Jones/NCTI to provide a degree path for technicians in the broadband industry.

The curriculum in this program is designed for broadband technicians and requires hands-on activities with the supervision of an on-site training coordinator. To participate it is recommended that students be employed by or participate in an internship with a broadband company that subscribes to Jones/NCTI as their training provider. Upon completion, those who wish to continue their education will be accepted as juniors at Franklin University and DeVry University through an articulation agreement between those institutions and Arapahoe Community College, the Indiana Institute of Technology and Jones/NCTI.

The Associate of General Studies (A.G.S.) degree allows students the unique option of building job-specific degrees to suit their career choices.

Major Courses (23 credit hours)

CTC	107	Installer	3
CTC	109	Installer Technician	4
CTC	111	Service Technician	4
CTC	113	System Technician	4
CTC	127	Fiber Installation and Activation	2
CTC	128	Fiber Testing and Maintenance	2
CTC	165	Advanced Technician	4

Choose Three (9 credit hours)

CTC	118	Broadband Digital Installer	3
CTC	119	DSL Installation	3
CTC	117	Computers and Broadband Modems	3
CTC	120	Understanding Voice and Data Networks	3
CTC	124	Troubleshooting Advanced Services	3

General Education Courses (31 credit hours)

BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
CIS	118	Intro to PC Applications	3
ENG	121	English Composition I	3
MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3
MAR	216	Principles of Marketing	3
MAT	108	Technical Mathematics or higher	4
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication	3

Total 63 credit hours

**Associate of General Studies
Broadband Business Management**

This Associate of General Studies degree allows students the unique option of building job-specific degrees to suit their career choices. The A.G.S. combines courses from an Jones/NCTI certificate, based on industry-specific competencies, with electives and general requirements.

To begin, the student completes the courses in a Jones/NCTI certificate of choice and combines them with electives to earn at least 27 credit hours. The remaining credit hours come from general requirement courses. The result is a degree that demonstrates job-specific expertise and general business knowledge, all while providing unparalleled opportunity for success.

Major Courses (27-29 credit hours)

General Education (33-35 credit hours)

I. Communications (9 credit hours)

ENG	121	English Composition I	3
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ENG	131	Technical Writing I	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communications	3

II. Humanities (9–11 credit hours)

PHI	112	Ethics	3
Foreign Languages: ARA, CHI, FRE, JPN, LAT or SPA 111-112			
			5
Foreign Languages: FRE, JPN, LAT or SPA 211-212			
			3
SPA	114	Spanish	5
ASL121-122		American Sign Language	5
Choose Foreign Language and one additional course from the following:			
HIS	201	U.S. History I	3
LIT	115	Introduction to Literature I	3
SPE	125	Interpersonal Communication	3
(if not taken to meet the communication requirement)			

III. Social Sciences (9 credit hours)

ECO	201	Principles of Macroeconomics	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
SOC	101	Intro to Sociology I	3

IV. Sciences (3 credit hours)

CIS	118	Intro to PC Applications	3
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V. Math (3 credit hours)

MAT121		or higher	3
Total			60-64 credit hours

Broadband Digital Management

Certificate

Students completing this certificate will be among the elite in the broadband industry, well-suited to supervise those who deploy and service cable modems, constant bit rate (CBR) telephony and digital video in broadband networks. Holders of this certificate can expect to work as managers of field service technicians, bandwidth access technicians, headend technicians, NOC technicians, etc. with broadband companies that are deploying advanced services.

BUS	115	Introduction to Business	3
CTC	107	Installer (or choose one from restricted electives)	3
CTC	109	Installer Technician	4
CTC	111	Service Technician	4
CTC	117	Computers and Broadband Modems	3
CTC	118	Broadband Digital Installer	3
CTC	124	Troubleshooting Advanced Services	3
MAN	116	Principles of Supervision	3

Restricted Electives

CTC	113	Systems Technician	4
CTC	165	Advanced Technician	3
CTC	120	Understanding Voice and Data Networks	3
Total			26-27 credit hours

Broadband Telephony Technology Management

Certificate

This certificate is for professionals hoping to advance in the rapidly growing field of broadband telephony. Those

completing this certificate can expect to work with broadband cable, RBOCs, LECs, CLECs and DSL companies that are deploying advanced services such as ISDN, DSL, VDSL and digital video. Also, individuals who have worked in the telephone industry will find this option helpful to move beyond POTS into supervision of full service broadband telephony technicians.

Major Courses

CTC	107	Installer (or choose one from restricted electives)	3
CTC	109	Installer Technician	4

Choose CTC 111 or CTC 116

CTC	111	Service Technician	4
CTC	116	Fiber Optics Technician	3

Plus ALL of the following

BUS	115	Introduction to Business	3
CTC	117	Computers and Broadband Modems	3
CTC	119	DSL Installation	3
CTC	120	Understanding Voice and Data Networks	3
MAN	116	Principles of Supervision	3

Restricted Electives

CTC	111	Service Technician	4
CTC	113	Systems Technician	4
CTC	124	Troubleshooting Advanced Services	3
Total			26–27 credit hours

Broadband Technical Management

Certificate

Broadband cable industry professionals completing this option will find success as managers of line technicians, maintenance technicians, fiber optics technicians and headend technicians, to name a few. These individuals will manage the personnel, processes and technologies used in design, construction, installation, maintenance and service of broadband coaxial and fiber networks.

CTC	107	Installer (or choose one from restricted electives)	3
CTC	109	Installer Technician	4
CTC	111	Service Technician	4
CTC	113	System Technician	4
CTC	127	Fiber Installation and Activation	2
CTC	128	Fiber Testing and Maintenance	2
CTC	165	Advanced Technician	4
MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3

Restricted Electives

CTC	117	Computer and Broadband Modems	3
CTC	118	Broadband Digital Installer	3
CTC	120	Understanding Voice and Data Networks	3
CTC	124	Troubleshooting Advanced Services	3
Total			29 credit hours

Broadband Customer Service Representative

Certificate

Students will use this option to gain the knowledge they need to perform as effective and efficient customer service representatives, as well as achieve the credibility associated with a college certificate. They will learn the technical and people

skills needed to be the valuable interface between broadband companies and customers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CIS	145	Complete PC Database	3
CTC	108	Broadband Cable Overview	1
CTC	121	Understanding Broadband Technology	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			18 credit hours

Broadband Customer Service Management

Certificate

This certificate prepares students for careers as broadband customer service managers, giving them both the technical and managerial skills to perform their jobs.

BUS	115	Introduction to Business	3
CIS	118	Intro to PC Applications	3
CTC	121	Understanding Broadband Technology	3
ENG	121	English Composition I	3
MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			25 credit hours

Broadband Technical Service Representative

Certificate

Those completing this certificate will be well versed in the technologies used to deploy video, voice and data services through broadband networks. They will also develop the skills needed to provide the initial level of technical support in customer service centers and network operations centers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CIS	145	Complete PC Database	3
CTC	120	Understanding Voice and Data	3
CTC	121	Understanding Broadband Technology	3
CTC	123	Basic Broadband Troubleshooting	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			23 credit hours

Broadband High-Speed Data Technical Service Representative

Certificate

This certificate is helpful for individuals looking to move into high-speed data call center support and management roles, as well as those in sales, marketing and administrative functions in organizations that offer HSD service. Individuals completing this certificate will possess an in-depth

knowledge of the technologies used to deploy, troubleshoot and support data services through broadband networks. Graduates will be uniquely qualified to manage services related to the deployment and initial, intermediate and advanced technical support of high-speed data in customer care and network operations centers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CTC	120	Understanding Voice and Data	3
CTC	121	Understanding Broadband Technology	3
CTC	123	Basic Broadband Troubleshooting	3
CTC	125	High-Speed Data Customer Service	2
CTC	126	Advanced High-Speed Data Customer Service	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			25 credit hours

Associate of General Studies—Engineering Emphasis

This program is designed for the student who wishes to receive a traditional four-year engineering bachelor's degree by beginning at ACC and then transferring to an engineering school. This program is based on a transfer agreement between ACC and the University of Colorado at Denver (UCD). Credits listed below received at ACC are transferable to UCD within the limits of the agreement. Students completing the curriculum below with satisfactory performance will be able to transfer into the UCD College of Engineering and Applied Science with a junior standing.

Students must choose one of four program options. Please contact the Health, Math, Science and Engineering Division at 303.797.5888 for more information.

Students must meet with the ACC Engineering Department Advisor to plan their program of study. Please contact Henry Weigel at 303.797.5831 or henry.weigel@arapahoe.edu.

General Education (50-53 credit hours)

Mathematics (14 credit hours)

MAT	201	Calculus I	5
MAT	202	Calculus II	5
MAT	203	Calculus III	4

Sciences (15 credit hours)

CHE	111	General College Chemistry I	5
PHY	211	Physics: Calculus Based I	5
PHY	212	Physics: Calculus Based II	5

Communications (9 credit hours)

ENG	121	English Composition I	3
ENG	122	English Composition II	3
SPE	115	Public Speaking	3

Humanities and Social Sciences (12-15 credit hours)

Depending upon program option selection below, either 12 or 15 Humanities and Social Sciences credit hours are required:

6 credit hours from the same area:

ECO	201	Principles of Macroeconomics	3
ECO	202	Principles of Microeconomics	3
POS	105	Introduction to Political Science	3
POS	111	American Government	3
SOC	101	Intro to Sociology I	3
SOC	102	Intro to Sociology II	3

3 credit hours from:

ANT	101	Cultural Anthropology	3
ANT	111	Physical Anthropology	3
PSY	101	General Psychology I	3

6 credit hours from the same area:

HIS	101	Western Civilization I	3
HIS	102	Western Civilization II	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3
PHI	111	Intro to Philosophy	3
PHI	112	Ethics	3

PROGRAM OPTIONS –

see program options below (12-15 credit hours)

Total **65****CHOOSE ONE PROGRAM OPTION:****Civil Engineering Option (12 credit hours)**

15 credit hours of Humanities and Social Sciences electives required.

EGG	101	Engineering Graphics	3
EGG	211	Engineering Mechanics: Statics	3
EGG	212	Engineering Mechanics: Dynamics	3
Restricted MAT or EGG elective – select from:			
CSC160 (C++), MAT 175, 255, 260			3

Computer Science in Engineering Option (15 credit hours)

12 credit hours of Humanities and Social Sciences electives required.

EGG	105	Logic Design	4
CSC	160	Computer Science I (C++)	4
CSC	161	Computer Science II (C++)	4
Restricted CSC or MAT elective – select from:			
CSC 225, MAT 255, 260, 280			3

Electrical Engineering Option (15 credit hours)

12 credit hours of Humanities and Social Sciences electives required.

EGG	105	Logic Design	4
EGG	221	Circuit Analysis I	4
EGG	222	Circuit Analysis II	4
Restricted CSC or MAT elective – select from:			
CSC 160 (C++), 233, 255, MAT 255, 260			3

Mechanical Engineering Option (12 credit hours)

15 credit hours of Humanities and Social Sciences electives required.

EGG	101	Engineering Graphics	3
EGG	211	Engineering Mechanics: Statics	3
EGG	212	Engineering Mechanics: Dynamics	3
Restricted CSC or MAT elective – select from:			
CSC 160 (C++), MAT 255, 260			3

General Education Requirements for A.A.S. Degrees

The Associate in Applied Science degrees require that a minimum number of courses must be completed from the approved general education list. The Associate of Arts, the Associate of Science and Associate of General Studies degree requirements listed previously already contain the general education options for those degrees.

Definition of General Education

General education for the A.G.S. and A.A.S. degrees is defined by State Board Policy (BP 9-40). General education is “general” in several clearly identifiable ways: it is not directly related to a student’s formal technical, vocational or professional preparation; it is a part of every student’s course of study, regardless of his or her area of emphasis; and is intended to impart common knowledge, intellectual concepts and attitudes which every educated person should possess.

*ANT	101	Cultural Anthropology	3
ANT	107	Intro to Archaeology	3
*ANT	111	Physical Anthropology	3
ARC	125	History of Architecture	3
*ART	110	Art Appreciation	3
*ART	111	Art History I	3
*ART	112	Art History II	3
ART	121	Drawing	3
ART	138	Photography I	3
ART	141	Jewelry and Metalwork I	3
ART	161	Ceramics I	3
ART	231	Watercolor I	3
*AST	101	Astronomy I	4
*AST	102	Astronomy II	4
*BIO	105	Science of Biology	4
*BIO	111	General College Biology I	5
*BIO	112	General College Biology II	5
BIO	115	Human Genetics	3
*BIO	201	Human Anatomy and Physiology I	4
*BIO	202	Human Anatomy and Physiology II	4
*BIO	204	Microbiology	4
BTE	102	Keyboarding Applications	2
BUS	115	Intro to Business	3
BUS	116	Personal Finance	3
BUS	216	Legal Environment of Business	3
*CHE	101	Intro to Chemistry I	5
*CHE	102	Intro to Chemistry II	5
*CHE	111	General College Chemistry I/Lab	5
*CHE	112	General College Chemistry II/Lab	5
CIS	115	Intro to Computer Information Systems	3
CIS	118	Intro to PC Applications	3
CSC	150	Visual Basic Programming	3
CSC	160	Computer Science I (Java)	4
CSC	161	Computer Science II (Java)	4
ECO	105	Intro to Economics	3
*ECO	201	Principles of Macroeconomics	3
*ECO	202	Principles of Microeconomics	3
ECO	205	Contemporary Economic Issues	3
ELT	100	Basic Electronics	3
*ENG	121	English Composition I	3
*ENG	122	English Composition II	3
ENG	131	Technical Writing I	3
(FOL)	111	Foreign Language I	5
(FOL)	112	Foreign Language II	5
(FOL)	211	Foreign Language III	3
(FOL)	212	Foreign Language IV: ARA, CHI, FRE, JPN, SPA and LAT	3
ASL	121	American Sign Language I	3
ASL	122	American Sign Language II	5
*GEO	105	World Regional Geography	3
*GEO	106	Human Geography	3
GEO	107	Physical Geography	3
GEO	165	Human Ecology	3
*GEY	111	Physical Geology	4

*GEY	121	Historical Geology	4
GDI	145	Video Computer Graphics	3
*HIS	101	Western Civilization I	3
*HIS	102	Western Civilization II	3
*HIS	201	U.S. History I	3
*HIS	202	U.S. History II	3
*HIS	247	Contemporary World History	3
*HUM	121	Early Civilizations	3
*HUM	122	From Medieval to Modern	3
*HUM	123	The Modern World	3
HWE	100	Human Nutrition	3
HWE	103	Standard First Aid-Adult CPR	1
HWE	108	Weight Loss and Nutrition	1
INV	115	Investments/Stocks and Bonds	3
LAW	225	Constitutional and Administrative Law	3
*LIT	115	Intro to Literature I	3
*LIT	201	Masterpieces of Literature I	3
*LIT	202	Masterpieces of Literature II	3
*LIT	205	Ethnic Literature	3
*LIT	211	Survey of American Literature I	3
*LIT	212	Survey of American Lit II	3
*LIT	221	Survey of British Literature I	3
*LIT	222	Survey of British Lit II	3
LIT	255	Children's Literature	3
MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3
MAR	106	Marketing Your Image	3
MAR	216	Principles of Marketing	3
MAT	090	Introductory Algebra	4
		(applicable only to specified vocational degrees)	
MAT	106	Survey of Algebra	4
MAT	111	Graphing Calculator Techniques	1
MAT	108	Technical Mathematics	4
*MAT	120	Mathematics for Liberal Arts	4
*MAT	121	College Algebra	4
*MAT	122	College Trigonometry	4
*MAT	123	Finite Mathematics	4
*MAT	125	Survey of Calculus	4
*MAT	135	Intro to Statistics	3
MAT	179	Computer Applications for Statistics	1
*MAT	201	Calculus I	5
*MAT	202	Calculus II	5
MUS	100	Fundamentals of Music Theory	3
*MUS	120	Music Appreciation	3
*MUS	121	Intro to Music History I	3
*MUS	122	Intro to Music History II	3
PED		Any physical activity course	1
*PHI	111	Intro to Philosophy	3
*PHI	112	Ethics	3
*PHI	113	Logic	3
PHO	101	Photography I	3
PHY	100	Elementary Physics	3
*PHY	105	Conceptual Physics	4
		(does not apply to the A.S. core)	
*PHY	111	Physics: Algebra-Based I	5
*PHY	112	Physics: Algebra-Based II	5
*PHY	211	Physics: Calculus-Based I	5
*PHY	212	Physics: Calculus-Based II	5
*POS	105	Intro to Political Science	3
*POS	111	American Government	3
POS	125	American State and Local Government	3
POS	205	International Relations	3
POS	216	Comparative Government	3
*PSY	101	General Psychology I	3

*PSY	102	General Psychology II	3
PSY	116	Stress Management	3
*PSY	235	Human Growth and Development	3
*SOC	101	Intro to Sociology I	3
*SOC	102	Intro to Sociology II	3
SOC	205	Marriage and The Family	3
SOC	215	Contemporary Social Problems	3
SPE	115	Public Speaking	3
SPE	125	Interpersonal Communication	3
SPE	225	Organizational Communication	3
*THE	105	Intro to Theatre Arts	3
*THE	211	Development of Theatre I	3
*THE	212	Development of Theatre II	3

*General Education courses marked with an asterisk are a part of the General Transfer Curriculum (GT 25).

Associate of Applied Science Degrees and Certificate Programs

The common goal of all Associate of Applied Science degrees and occupational certificate programs is to prepare students for employment in specific occupations. The programs for the degrees consist of major courses as well as related general education courses. While many of these courses may transfer to a 4-year college or university, the programs themselves do not have transferability as their primary goal. Students are encouraged to discuss career goals and educational objectives with a counselor or advisor prior to enrolling in these programs. Courses numbered below 100 cannot be used to satisfy elective requirements for A.A.S. degrees.

Accounting

Associate of Applied Science Degree

This program is designed to prepare the student for entry-level positions in the bookkeeping/accounting field. This would include clerical positions in specialized areas such as an accounts payable, accounts receivable and payroll, as well as positions with a more total involvement in accounting.

Major Courses (32 credit hours)

ACC	121	Principles of Accounting I	4
ACC	122	Principles of Accounting II	4
ACC	115	Payroll Accounting	3
ACC	131	Income Tax I	3
ACC	135	Spreadsheet Applications for Accounting	3
ACC	226	Cost Accounting	3
ACC	229	Managerial Accounting	3
ACC	287	Cooperative Education OR	
ACC	289	Capstone	3
BUS	217	Business Communications & Report Writing	3
FIN	101	Introduction to Finance	3

General Education Courses (15-17 credit hours)

BUS	216	The Legal Environment	3
ECO	201 or ECO 202		3
ENG	121 or ENG 131		3
MAT	106/111 or higher		3-5
SPE	125 or SPE 225 or SPE 115		3

Restricted Electives (13 credit hours)

Select at least six hours from Area One and six hours from Area Two. The remaining hour may be selected from either area. Please consult with an Advisor for selection of electives best suited to your needs.

Area One: Business Electives

Select at least six hours from any Course with the following prefixes: BTE, BUS, ECO, FIN, INV, MAN, MAR

Area Two: ACC/CIS Electives

Select at least six hours from any course with the following prefix, not already required: ACC, CIS, CNG, CSC

Physical Education² (1 credit hour)
 PED activity course 1

Total 61–63 credit hours

¹ Students without a good background in algebra should take the math requirement prior to taking ACC 122.

² The PED requirement will be waived for students who are 35 years of age or older at time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

**Activity Professionals' Training
 Basic/Advanced**

Certificates

The activity profession is unique in health care because the focus is on “what is RIGHT with the person rather than what is wrong.” The activity professional is offered flexibility and creativity while improving the quality of life of older adults residing in nursing homes, assisted living facilities, retirement communities and community-based adult day programs.

Students will learn how to meet the psychosocial, physical and cultural needs of the older adult through a diverse activity program. Students will learn program planning, physical and social aspects of aging, regulatory requirements, documentation guidelines and administrative techniques. Classroom instruction will include presentations from a variety of experts in the activity and aging field. After successfully completing the activity professional training program the student is qualified according to federal OBRA regulations to be an activity director employed in a nursing home. This program is the only State-approved training program in Colorado. The student is also a step closer towards national certification by the National Certification Council for Activity Professionals.

The Basic APT classes 101, 102 and 188 are co-requisites that meet for eight-hour sessions three times a month for four months. Practicum experience includes 90 hours working in an activity department under the direction of a certified activity professional. The Advanced Activity Professionals' Training Certificate consists of courses that comprise the advanced curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals.

The Basic certificate is not eligible for financial aid. Contact the Financial Aid Office for further information. All courses required for this certificate must be completed with a “C” or better.

Basic Activity Professionals' Training Certificate (10 credit hours)

APT 101	Basic Activity Professional Training–Part 1	4
APT 102	Basic Activity Professional Training–Part 2	4

APT 188	Basic Practicum	2
Total		10 credit hours

Advanced Activity Professionals' Training Certificate (30 credit hours)

Basic Activity Professionals' Training Certificate 10		
APT 201	Advanced Documentation and Regulatory Compliance	2
APT 202	Administrative Practices in Activity Profession	2
APT 203	Volunteer Management	2
APT 204	Community Relations and Communications	2
APT 288	Advanced Management Practicum	2
*HPR 178	Medical Terminology	3

Electives (10 credit hours)

Select 10 credit hours from the following:

*ART 110	Art Appreciation	3
*ART 111	Art History I	3
ART 161	Ceramics I	3
CIS 115	Intro to Computer Information Systems	3
ENG 121	English Composition I	3
HPR 240	Role of Death & Bereavement in Society	3
HUM 100	Intro to Arts and Humanities	3
*HWE 100	Human Nutrition	3
MUS 100	Fundamentals of Music Theory	3
MUS 120	Music Appreciation	3
PSY 101	General Psychology I	3
*PSY 235	Human Growth and Development	3
SOC 101	Intro to Sociology	3

*Course available online

Total 30 credit hours

Applied Technology

Associate of Applied Science Degree

Students desiring to complete the Associate of Applied Science (A.A.S.) Degree in Applied Technology will complete the technical course work contained in a State-approved career and technical education program certificate * at one of the four area vocational technical schools (AVTS). The four AVTS are: Delta-Montrose Area Vocational Technical Center, Emily Griffith Opportunity School, San Juan Basin Area Vocational Technical School and Pickens Tech Center.

The general education and other degree requirements will be completed at Arapahoe Community College. The A.A.S. degree will be conferred by Arapahoe Community College after the general education and other degree requirements have been completed.

The approved career and technical education certificate programs at the AVTS prepare students with technical, applied academic and employability skills. Credit in varying amounts from these certificate programs will be applicable to the community college's A.A.S. degree in Applied Technology.

Students may enroll concurrently at both institutions, an AVTS and Arapahoe Community College. Students must comply with the regulations and requirements relating to admission and attendance at each institution.

Minimum requirements for the Associate of Applied Science (A.A.S.) Applied Technology degree include:

1. 60 semester credits of course work.
2. Arapahoe Community College will accept up to 42 credit hours of course work from an approved certificate at an AVTS.

3. Cumulative GPA of 2.0 or higher.
4. General education course credits of 15-18 semester credits.
5. Minimum of 18 semester credits earned at Arapahoe Community College to include:

General Education Requirements:	Semester Credits
English: ENG 121 or ENG 131	3
Speech: SPE 115 or SPE 125	3
Humanities: Selected from general education lists	3
Mathematics: MAT 121 or higher	4
Natural Science: Selected from the General Education list	3
Social Science: Selected from General Education list	3

15-credit minimum

6. Students completing an AVTS certificate of less than 42 hours must complete additional hours at Arapahoe Community College from the approved General Education list. These credit hours should be selected to complement the certificate from the AVTS and be consistent with the student's future plans. Students transferring a certificate with thirty or fewer hours will complete a minimum of twelve hours in a single technology-based discipline.

The disciplines are: Architectural Technology (ARC), Automotive Technology (ATC, AUT), Computer-Aided Drafting, Computer Graphics (CAD), Computer Information Systems (CIS), and Convergent Technologies (CTC), Electronics Engineering Technologies (ETC), and Electronics Engineering Technologies (ELT). The specific courses must be selected in consultation with a department advisor and be approved by the advisor.

*A state-approved career and technical education program is a program that is approved by the State Board for Community Colleges and Occupational Education (SBCCOE) and is current.

Architectural Technology

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

The Architectural Technology program provides students with the development of skills necessary to become a competent draftsman. Graduates of the program will be dealing with residential drawings as well as commercial structures. New students are encouraged to talk or meet with an Architectural Technology faculty advisor before first semester registration.

The student will also be introduced to a number of architectural and building trade related topics. From the "History of Architecture" to "Surveying," the student will be expanding his/her knowledge of this industry. Diversified courses within the Architectural Technology program provide a foundation for employment within the varied building design and construction industry.

Major Courses	(48 credit hours)
ARC 101 Intro to Architectural Drawing	5
ARC 102 Residential Architecture	5
ARC 116 Building Materials	3
ARC 121 Building Structure Analysis	3
ARC 125 History of Architecture	3
ARC 205 Commercial Drawing Practice I	4
ARC 215 Architectural Graphics	3
ARC 216 Estimating I	3

ARC 218 Surveying	3
ARC 226 Construction Scheduling	3
ARC 231 Building Service Systems	3
ARC 236 Codes/Zoning/Specifications	3
ARC 278 Seminar	1
ARC 280 Internship	1
CAD 101 Computer Aided Drafting I	3
CAD 102 Computer Aided Drafting II	3

General Education Courses (16 credit hours)

ART110, 111, or 112	3
ENG121 or 131 English	3
MAT108 Technical Mathematics or higher	4
SPE115, 125, or 225 Speech	3

Elective:

From the General Education Course List - Section I, Communications; IV, Sciences or V, Mathematics. 3

Physical Education (1 credit hour)

PEDActivity Course*	1
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Total Degree Credits 66 credit hours

*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.

Architectural Drafting

Certificate

The Architectural Drafting certificate provides the education background and basic technical training necessary for the student to seek employment within one of the area's architectural firms. Students will be prepared for a variety of job-entry positions that include draftsman, or computer aided design technician.

Major Courses (35 credit hours)

ARC 101 Intro to Architectural Drawing	5
ARC 102 Residential Architecture	5
ARC 116 Building Materials	3
ARC 121 Building Structure Analysis	3
ARC 125 History of Architecture	3
ARC 215 Architectural Graphics	3
CAD 101 Computer Aided Drafting I	3
CAD 102 Computer Aided Drafting II	3
CAD 201 Computer Aided Drafting/Custom	3
MAT 108 Technical Mathematics or higher	4

Architectural Contracts & Materials

Certificate

The Architectural Drafting certificate provides the education background and basic technical training necessary for the student to seek employment within one of the area's architectural firms. Students will be prepared and trained for a variety of job-entry positions that include engineering technician, materials technician, estimator, specification writer or construction supervisor.

Major Courses (27 credit hours)

ARC 107 Blueprint Reading (Residential/Commercial)	3
ARC 116 Building Materials	3

ARC	216	Estimating I	3
ARC	218	Surveying	3
ARC	226	Construction Scheduling	3
ARC	228	Contracts, Bonds & Insurance	3
ARC	236	Codes/Zoning/Specifications	3
ARC	231	Building Service Systems	3
ENG	131	Technical Writing	3
Total			27 credit hours

Residential Drafting

Certificate

Major Courses (16 credit hours)

ARC	101	Intro to Architectural Drawing	5
ARC	102	Residential Architecture	5
CAD	101	Computer Aided Drafting I	3
CAD	102	Computer Aided Drafting II	3
Total			16 credit hours

Automotive Service Technology

Associate of Applied Science Degree or Certificate

These 2-year certificate and Associate of Applied Science degree programs are NATEF certified and taught by ASE certified instructors.

The programs are designed to prepare students for employment in the automotive service industry as repair technicians and will help prepare students for the ASE certification examinations. The combination of automotive and academic courses culminates in an A.A.S. degree.

Recent U.S. Department of Labor statistics show a shortage of approximately 30,000 automotive repair technicians nationally. The average technician with 5-8 years experience earns a yearly salary in the range of \$40,000-\$60,000 with more experienced and more talented technicians earning nearly \$100,000 per year.

The automotive training program at ACC is organized into three outstanding "Tracks":

1. General Motors-specific program called GM Automotive Service Educational Program (ASEP)
2. DaimlerChrysler-specific program called DaimlerChrysler College Apprenticeship Program (CAP)
3. The general college program called the Automotive Service Technology Program (ATEC)

The corporate sponsored dealership apprenticeship programs (CAP & ASEP) are manufacturer specific and are degree programs only. In-coming freshmen classes for these programs begin only in the fall semester. These two tracks require the student obtain and maintain an apprenticeship position at a GM or DaimlerChrysler dealership for the duration of the program. Additionally, these students will be taking manufacturer technician training courses and their sponsoring dealership will be receiving training credit for that student upon his or her graduation with the A.A.S. degree.

The general ATEC program can be either the Certificate or the A.A.S. degree; and neither requires the student obtain an industry apprenticeship. However such an apprenticeship is highly encouraged as it strengthens the connection between material learned in school and its application in the real world.

All of these tracks have limited seats available.

Students wishing to pursue one of the corporate tracks must be signed into the respective courses by the department chairman or the course instructor. The classes for the

corporate tracks will be filled with dealer sponsored students first and general program students may be allowed to fill any available seats.

Corporate students will be taking many of their required academic courses as part of their scheduled class blocks so enrollment in those academic courses must be allowed by the various academic course requirements. This requirement is so that all corporate students complete their degree program on time with no delay of the sponsoring dealership receiving their training credit.

All students, regardless of their chosen track, should be aware of a few automotive repair industry expectations, specifically:

1. Technicians must drive their customer's vehicles as part of the repair process and thus the technician and the student must have a clean motor vehicle record and valid driver's license.
2. The hiring process at reputable repair shops and dealerships will include a drug screen and may include a thorough background investigation.

If the prospective student has any difficulty with either or both of these expectations they are advised to meet with the Auto Department Chairman prior to enrolling in any Auto courses.

NOTE: A less formal Nissan/Infinity partnership exists between ACC, Nissan of North America and a several participating Nissan and Infinity dealerships. Students who are hired by a Nissan or Infinity dealership before or during their course work will pursue the ATEC track.

NOTE: Any student who completes the A.A.S. degree requirements is also eligible for the Automotive Technology Certificate.

The National Automotive Technician Education Foundation, Inc. which the Automotive Service Technology Program can be reached at 101 Blue Seal Drive, Leesburg VA, 20175, Telephone (703) 669-6650.

Automotive Courses (60 credit hours)

ASE	102	Introduction to the Automotive Shop	2
ASE	110	Brakes I	3
ASE	210	Brakes II	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	220	Specialized Electronics Training	2
ASE	221	Body Electrical	4
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
ASE	231	Automotive Computers	2
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	235	Driveability Diagnosis	1
ASE	140	Suspension and Steering I	3
ASE	240	Suspension and Steering II	3
ASE	250	Automatic Transmission/Transaxle Serv.	1
ASE	251	Automatic Trans/Transaxle Diagnosis	5
ASE	160	Automotive Engine Removal & Install	1
ASE	161	Engine Disassembly, Diagnosis & Assembly	5
ASE	265	Heating & Air Conditioning	5
ASE	150	U-Joint & Axle Shaft Service	2
ASE	151	Manual Transmission/Trans & Clutches	2
ASE	152	Differentials & 4WD/AWD Service	2
Total Automotive Credit Hours			60

General Education Courses (17 credit hours)

ENG 121	English Composition I OR	
ENG 131	Technical Writing	3
CIS 118	Introduction to PC Applications	3
MAT 108	Technical Mathematics (or higher alg-based math)	4
PHY 101	Elementary Physics (or higher alg-based physics)	4
SPE 125	Interpersonal Communication	3
Total General Education Credit Hours		17

Total 77 credit hours**Automotive Service Management****Certificate**

This program is designed as a work co-op program for people interested in a job as an automotive service writer/consultant. The academic courses may be taken prior to, in conjunction with, or after the automotive courses. *Dealerships are particularly interested in female service writers as women are under-represented in the automotive service field.

Automotive Courses (33 credit hours)

ASE 102	Introduction to Auto Shop	2
ASE 130	General Engine Diagnosis	2
ASE 110	Brakes I	3
ASE 140	Suspension and Steering I	3
ASE 265	Heating & Air Conditioning	5
ASE 120	Basic Automotive Electricity	2
ASE 123	Battery, Starting and Charging Systems	2
ASE 132	Ignition System Diagnosis and Repair	2
ASE 233	Fuel Injection and Exhaust Systems	4
ASE 250	Automatic Transmission/Transaxle Serv.	1
ASE 134	Automotive Emissions	2
ASE 210	Brakes II	3
ASE 150	U-Joint & Axle Shaft Service	2
Total Automotive Credit Hours		33

General Education Courses (13 credit hours)

ENG 121	English Composition I OR	
ENG 131	Technical Writing	3
SPE 125	Interpersonal Communication	3
CIS 117	Intro to PC Applications	2
BUS 115	Intro to Business	3
BTE 100	Computer Keyboarding	1
Total General Education Credit Hours		12

Total 45 credit hours**Electrical/Electronics, Engine Performance & Brakes—1 Year Certificate**

ASE 110	Brakes I	3
ASE 210	Brakes II	3
ASE 120	Basic Automotive Electricity	2
ASE 123	Battery, Starting and Charging Systems	2
ASE 220	Specialized Electronics Training	2
ASE 221	Body Electrical	4
ASE 130	General Engine Diagnosis	2
ASE 132	Ignition System Diagnosis and Repair	2
ASE 134	Automotive Emissions	2
ASE 231	Automotive Computers	2
ASE 233	Fuel Injection and Exhaust Systems	4
ASE 235	Driveability Diagnosis	1
Total		29 credit hours

Steering/Suspension, Powertrain, Heating & Air Conditioning—1 Year Certificate

ASE 140	Suspension and Steering I	3
ASE 240	Suspension and Steering II	3
ASE 250	Automatic Transmission/Transaxle Serv.	1
ASE 251	Automatic Trans/Transaxle Diagnosis	5
ASE 160	Automotive Engine Removal & Install	1
ASE 161	Engine Disassembly, Diagnosis & Assembly	5
ASE 265	Heating & Air Conditioning	5
ASE 150	U-Joint & Axle Shaft Service	2
ASE 151	Manual Transmission/Trans & Clutches	2
ASE 152	Differentials & 4WD/AWD Service	2
Total		29 credit hours

Business Administration**(See also A.A. Business Transfer Emphasis)****Associate of Applied Science Degree**

The Associate of Applied Science degree in Business Administration is designed to provide students with the skills needed in diverse public and private organizations. The program provides the business, management and marketing skills necessary for success in entry-level positions requiring foundations of greater responsibility, authority and leadership. Students who complete the program will be viewed by potential employers as having a broad-based education necessary for today's team-oriented and globally-competitive environment.

The Business Administration program prepares students for careers in business, as well as providing students with instructional resources for the purpose of ongoing enhancement of skills.

This program may transfer to other colleges or universities and apply toward a bachelor's degree. Contact the ACC Counseling Office or a Faculty Advisor in Business Administration for details.

Major Courses (34 credit hours)

ACC 121	Principles of Accounting I	4
BUS 115	Introduction to Business	3
BUS 216	Legal Environment of Business	3
BUS 217	Business Communications/ Report Writing	3
FIN 101	Introduction to Finance	3
MAN 128	Human Relations OR	
MAN 215	Organizational Behavior	3
MAN 224	Leadership	3
MAN 226	Principles of Management	3
MAR 106	Marketing Your Image	3
MAR 160	Customer Service	3
MAR 216	Principles of Marketing	3

General Education Courses (16 credit hours)

BUS 226	Business Statistics	3
CISMust be CIS 118 or higher		3
CIS 161	Presentation Graphics	1
ECO 201	Principles of Macroeconomics OR	
ECO 202	Principles of Microeconomics	3
ENG 121	English Composition I	3
SPE 115	Public Speaking	3

Coop Education/Internship (1 credit hour)

BUS 287	Co-op Education/Internship	1
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Discipline Emphasis

Student must choose one of the following areas of emphasis:

General Business Option (9 credit hours)

The General Business Option prepares students for entry-level positions in a broad range of business occupations. It continues the students' exposure to major areas in the business world, as well as giving the student flexibility in designing a program to fit his or her specific needs.

Restricted Electives (9 credit hours)

Student must choose 9 credit hours from the courses listed below:

BUS	116	Personal Finance	3
BUS	203	Introduction to International Business	3
BUS	241	Cultural Diversity in Business	3
BUS	287	Co-op Education/Internship	3

Any course(s) with the prefixes:

ACC, BTE, BUS, CIS, FIN, MAN, MAR, REE,
or other, with Department Chair approval 3-9

Management Option (9 credit hours)

The Management Option prepares students for entry-level positions in business, government and nonprofit organizations. For those who are already managers, the emphasis is designed to improve and broaden their skills by keeping abreast of the most current technological and theoretical aspects of Management.

Restricted Electives (9 credit hours)

Students must take 9 credit hours from the following:

MAN	116	Principles of Supervision	3
MAN	200	Human Resource Management	3
MAN	201	Human Resource Management II	3
MAN	216	Small Business Management	3
MAN	240	Strategic Management	3
MAN	241	Project Management in Organizations	3
MAN	243	Project Management Practicum	3
BUS	287	Co-op Education/Internship	3
CIS	202	Automated Project Management: MS Project	3

Marketing Option (9 credit hours)

The Marketing Option prepares students for entry-level positions which deal with directing the activities of the organization toward the satisfaction of consumer wants and needs. This involves an understanding of consumer behavior; promotional, sales and pricing strategies; product management; and physical distribution, all of which prepare the student for a wide variety of opportunities.

Restricted Electives (9 credit hours)

Student must take 9 credit hours from the following:

MAR	111	Principles of Sales	3
MAR	117	Principles of Retailing	3
MAR	126	Merchandising	3
MAR	160	Customer Service	3
MAR	220	Principles of Advertising	3
MAR	235	Consumer Behavior	3
MAR	249	Strategic Marketing	3
BUS	287	Co-op Education/Internship	3

Small Business Management Option (9 credit hours)

The Small Business Management Option is designed to prepare those interested in a career in owning or managing

a small business, as well as to enhance the skills of those already involved in entrepreneurship. The courses are designed to stimulate the entrepreneurial spirit by giving the student the knowledge and ability needed to profitably respond to the environment of the small businessperson.

Required Course: (3 credit hours)

MAN	216	Small Business Management	3
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Restricted Electives: (6 credit hours)

Student must take 6 credit hours from the following:

BUS	116	Personal Finance	3
BUS	203	Introduction to International Business	3
BUS	241	Cultural Diversity in Business	3
MAR	111	Principles of Sales	3
MAR	117	Principles of Retailing	3
MAR	160	Customer Service	3
MAR	220	Principles of Advertising	3
BUS	287	Co-op Education/Internship	3

Event Management Option (9 credit hours)

The Event Management Option prepares students for entry-level event management and marketing positions for both large and small businesses and community relations positions for government and nonprofit agencies or for self-employment.

Required Course: (3 credit hours)

MAN	205	Event Planning	3
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Restricted Electives: (6 credit hours)

Student must take 6 credit hours from the following:

MAN	216	Small Business Management	3
MAR	111	Principles of Sales	3
MAR	160	Customer Service	3
MAR	220	Principles of Advertising	3
BUS	287	Co-op Education/Internship	3

Real Estate Broker Licensing Option(12 credit hours)

Successful completion of the courses in this option will satisfy the educational requirement of the Colorado Real Estate Commission to sit for the Real Estate Broker's Licensing Examination.

Required Courses: (12 credit hours)

REE	201	Real Estate Broker I	6
REE	202	Real Estate Broker II	6

Real Estate Appraiser Option (9 credit hours)

Successful completion of REE 118 and REE 119 in this option will satisfy the educational requirement of the Colorado Board of Real Estate Appraisers to sit for the Registered Appraiser Examination.

Required Courses (9 credit hours)

REE	115	Introduction to Real Estate	3
REE	118	Real Estate Appraisal	4
REE	119	Uniform Standards of Professional Appraisal Practice (USPAP)	1
BUS	287	Co-op Education/Internship	1

Travel And Tourism Option (9 credit hours)

This option prepares individuals for career opportunities in the Travel and Tourism industry. The program emphasizes travel careers with a variety of employers, as well as the enhancement of the skills of those already employed in the industry.

Restricted Electives (9 credit hours)

Student must take 9 credit hours from the following:

TRA	120	Travel Reservations	3
TRA	125	Airline Reservations	3
TRA	128	Travel Destinations	3
TRA	141	Leisure Travel	3
TRA	230	Home-based Travel Agent	3
BUS	287	Co-op Education/Internship	3

Business Administration**Certificates**

These certificate programs offer opportunities for students to add a wide range of business-related courses to their experience for advancement in their jobs, to enhance skills needed in the business and/or public workforce sectors, or in endeavors involving self-employment and entrepreneurship.

Advertising Media

This certificate is designed to enhance the knowledge and skills of those interested in graphic design or marketing careers and for entrepreneurs. Marketing and advertising principles are covered with an overview of graphic design technologies and practices.

Required Courses (15 credit hours)

MAR	216	Principles of Marketing	3
MAR	220	Principles of Advertising	3
ART	131	Design I	3
MGD	101	Introduction to Computer Graphics	3
MGD	103	Production Design	3
		(prerequisites: ART 131 and MGD 101)	3
Total			15 credit hours

Consumer Behavior

This certificate is for individuals who wish to obtain a better understanding of consumer actions and feeling that may influence the development of marketing strategies. Courses can be applied to the A.A.S. in Business Administration.

Required Courses (9 credit hours)

MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3
MAR	235	Consumer Behavior	3
Total			9 credit hours

Contemporary Business

For students who wish to gain a basic knowledge of today's business environment. Courses can all be applied to the A.A.S. in Business Administration.

Required Courses (9 credit hours)

BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
MAN	230	Corporate Responsibility	3
Total			9 credit hours

Contemporary Management

This certificate is designed for both line and staff managers in the business and public sectors and for those who wish to learn the planning, supervision and management techniques and skills needed to improve workforce productivity. Courses can be applied to the A.A.S. in Business Administration.

Required Courses (9 credit hours)

MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3
MAN	240	Strategic Management	3

Customer Service

This certificate is for individuals who are in a business, management or marketing profession and would like to enhance their customer service skills or develop a customer service plan for their organization or business. Courses can be applied to the A.A.S. in Business Administration.

Required Courses (12 credit hours)

MAR	160	Customer Service	3
MAR	111	Principles of Sales	3
MAR	235	Consumer Behavior	3
BUS	217	Business Communication/ RPT Writing	3
Total			12 credit hours

Direct Marketing

This certificate is designed for an individual already in a marketing career or an entrepreneur to understand all aspects of direct marketing from using marketing/advertising principles and basic design of direct mail pieces to gathering customer information and developing and maintaining databases.

Required Courses (12 credit hours)

MAR	216	Principles of Marketing	3
MAR	220	Principles of Advertising	3
CIS	167	Desktop Publishing	3
CIS	240	Database Design and Development	3
Total			12 credit hours

Human Resource Management

This certificate is designed to enhance the skills of those who are seeking employment that deals with a practical approach to current issues in Human Resource Management, including laws, compensation programs and evaluation policies and procedures. These courses can be applied to the Human Resource Specialist certificate and to the A.A.S. in Business Administration.

Required Courses (9 credit hours)

MAN	200	Human Resource Management I	3
MAN	201	Human Resource Management II	3
MAN	215	Organizational Behavior	3
Total			9 credit hours

Human Resource Specialist

This certificate is designed for individuals pursuing careers as Human Resource Specialists in large organizations, or Human Resource Managers in smaller organizations, or those already so employed who wish to upgrade or enhance their skills. The program concentrates heavily on the connection between organizations and productivity and how these are affected by the concepts, issues and practices of contemporary Human Resource Management. Courses can be applied to an A.A.S. degree in Business Administration.

Required Courses (30 credit hours)

MAR	106	Marketing Your Image	3
BUS	216	Legal Environment of Business	3
MAN	116	Principles of Supervision	3

MAN	128	Human Relations	3
MAN	200	Human Resource Management I	3
MAN	201	Human Resource Management II	3
MAN	215	Organizational Behavior	3
MAN	224	Leadership	3
MAN	226	Principles of Management	3
MAN	230	Corporate Responsibility	3
Total			30 credit hours

International Business

This certificate is designed for students entering one of the fastest and most challenging segments of business today, the international market. Completion of these courses will provide a good understanding of the interdisciplinary nature of international business. Courses can be applied to the A.A.S. in Business Administration.

Required Courses			(9 credit hours)
BUS	115	Introduction to Business	3
BUS	203	Introduction to International Business	3
BUS	241	Cultural Diversity in Business	3
Total			9 credit hours

Leadership

This certificate will help individuals assess and develop personal leadership skills, including the increasingly important relationship between effective leadership and the situation. Courses can be applied to the A.A.S. in Business Administration.

Required Courses			(9 credit hours)
MAN	215	Organizational Behavior	3
MAN	224	Leadership	3
MAN	230	Corporate Responsibility	3
Total			9 credit hours

Management for Professional and Technical Employees

This certificate is designed specifically for individuals who have professional or technical expertise and are in a management position, anticipate moving into a management position, or plan on starting their own business. To qualify for this certificate individuals must:

1. Have a minimum of an Associate of Applied Science degree in a technical area or three years of documented work experience in a technical area, and
2. Complete the required course work at Arapahoe Community College.

Required Courses			(15 credit hours)
BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
MAN	116	Principles of Supervision	3
MAN	128	Human Relations	3
MAN	230	Corporate Responsibility	3

Restricted Electives			(3-4 credit hours)
Student must select one course from the following:			
ACC	121	Principles of Accounting	4
MAN	216	Small Business Management	3
MAR	216	Principles of Marketing	3
Total			18-19 credit hours

Organizational Behavior

This certificate is for individuals whose professions require them to interact with others on a regular basis, or who are involved in any aspect of organizational development. The certificate focuses on psychological, interpersonal and behavioral dynamics. Courses can be applied to the A.A.S. in Business Administration.

Required Courses			(9 credit hours)
MAN	128	Human Relations	3
MAN	215	Organizational Behavior	3
MAN	226	Principles of Management	3
Total			9 credit hours

Project Management

This certificate is designed to enable individuals to initiate, plan, execute and control project events and to bring project events to a timely conclusion. The certificate concentrates on teaching task specialists to work cross-functionally and in ad hoc project teams. Courses can be applied to the A.A.S. degree in Business Administration.

Required Courses			(9 credit hours)
MAN	241	Project Management in Organizations	3
CIS	202	Automated Project Management – MS Project	3
MAN	243	Project Management in Action	3
Total			9 credit hours

Real Estate Appraisal

Successful completion of REE 118 and REE 119 in this certificate will satisfy the educational requirement of the Colorado Real Estate Commission to sit for the Real Estate Appraisal Examination. Courses can be applied to the A.A.S. in Business Administration.

Required Courses			(8 credit hours)
REE	115	Real Estate Law and Practice	3
REE	118	Real Estate Appraisal	4
REE	119	Uniform Standards of Professional Appraisal Practice (USPAP)	1
Total			8 credit hours

Real Estate Broker

This certificate is designed for students who wish to complete the hours of education requirements of the Colorado Real Estate Commission for Broker Licensing. Individuals who successfully complete this course of study will be awarded an REC 33 Certificate, which will enable them to sit for the State Broker Licensing examination. Courses can be applied to the A.A.S. in Business Administration.

Required Courses			(12 credit hours)
REE	201	Real Estate Broker I	6
REE	202	Real Estate Broker II	6
Total			12 credit hours

Sales Management

For individuals who are interested in the sales profession as a career, or who are already in the sales profession and wish to enhance their knowledge about this increasingly important segment of American business. Courses can be applied to the A.A.S. in Business Administration.

Required Courses	(9 credit hours)
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3
Total	9 credit hours

Sales Management II

For individuals who are interested in the sales profession as a career in sales and/or sales management. This certificate offers individuals a more comprehensive background in sales and/or sales management. Courses can be applied to the A.A.S. in Business Administration.

Required Courses	(18 credit hours)
MAN 226 Principles of Management	3
MAR 111 Principles of Sales OR	3
MAR 216 Principles of Marketing	3
MAR 160 Customer Service	3
MAR 245 Sales Management	3
MAR 235 Consumer Behavior	3
Total	18 credit hours

Small Business Management

This certificate is designed for those who are interested in the entrepreneurial aspect of the business environment and want to develop the knowledge and skills needed to understand and function profitably in the small business environment. The certificate is designed to give the student the basic tools he or she will need for immediate use and the courses required can also be applied to the Small Business Option of the A.A.S. degree in Business Administration.

Required Courses	(27 credit hours)
ACC 235 Computerized Accounting for Small Businesses	3
BUS 216 Legal Environment of Business	3
BUS 217 Business Communications	3
CIS Must be CIS 118 or higher	3
MAN 216 Small Business Management	3
MAN 230 Corporate Responsibility	3
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3

Restricted Electives (3 credit hours)

Student must select one course from the following:

MAN 116 Principles of Supervision	3
MAR 117 Principles of Retailing	3
MAR 220 Principles of Advertising	3
SPE 115 Public Speaking	3

Total 30 credit hours

Small Business Marketing and Sales

This certificate is designed for individuals who wish to enhance their skills utilizing customer service skills, marketing and advertising principles in small business marketing. Courses can be applied to the A.A.S. in Business Administration.

Required Courses	(15 credit hours)
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3
MAR 220 Principles of Advertising	3

Restricted Electives (3 credit hours)

Student must select one course from the following:

MAR 117 Principles of Retailing	3
MAR 217 E-Commerce Marketing	3
MAR 249 Strategic Marketing	3
Total	15 credit hours

Supervision

This certificate is designed for individuals who wish to enhance their skills in the supervision of people at the front line of management. The course work required for this certificate is especially suited both to those already in a supervisory position and also to those anticipating moving into a supervisory position. Courses can be applied to the A.A.S. in Business Administration.

Required Courses (9 credit hours)

MAN 116 Principles of Supervision	3
MAN 128 Human Relations	3
MAN 226 Principles of Management	3
Total	9 credit hours

Travel And Tourism

The Travel and Tourism certificate is designed to prepare individuals for career opportunities in one of the fastest growing fields in Colorado. In addition to travel agencies, career opportunities exist with airlines, cruise lines, hotels and as corporate travel planners. Courses may also apply to A.A.S. in Business Administration.

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 & 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 & 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 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 & 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

Legal Secretary

This certificate will prepare the student to enter a legal office environment to become an office professional. The student will develop skills in keyboarding applications, word processing, language skills, computer applications, human relations, communications and office procedures as they relate to a legal office.

Major Courses (35 credit hours)

BTE	102	Keyboarding Applications I	2
BTE	103	Keyboarding Applications II	3
BTE	120	Electronic Office Procedures	3
BTE	125	Records Management	3
BTE	166	Business Editing Skills	3
BTE	238	Legal Office Procedures	3
BUS	217	Business Communication & Report Writing	3
CIS	118	Introduction to PC Applications	3
CIS	135	Word Processing Complete	3
CIS	140	Microsoft Outlook	1
PAR	110	Legal Analysis	3
PAR	115	Intro to Law	3
PAR	117	Family Law	3

Total 36 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, dry-wall 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 Certificate (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