

Academic Curricula

Associate in Applied Science (A.A.S.) Curricula

Gainful Employment Information

Some programs are considered by the U.S. Department of Education to be “Gainful Employment” programs. Important information about program length, cost, loan debt, graduates, and related occupations can be found on each colleges’ web page listed under Academics>Gainful Employment Disclosures or for the link for each college see Appendix F of this catalog. Information is valid as of this document’s publication date.

Advanced Integrated Manufacturing

The Manufacturing Process Operations certificate introduces the basic principles and practices of manufacturing processes and procedures in today’s contemporary environment. Areas of study include plastic processing, material removal, quality control, and material selection. These skills are geared toward workers in front-line manufacturing positions that need skill upgrading or are first time workers in these environments. Upon completion of the certificate, students are ready to enter as front-line manufacturing employees in processing plastics.

Certificate

Manufacturing Process Operations – 4805013019

(Offered at MDC)

AIM	100	Principles of Advanced Integrated Manufacturing	3
AIM	110	Manufacturing Processes and Materials.....	3
AIM	120	Introduction to Modern Plastics Manufacturing	3
AIT	1001	Basic Electrical Knowledge	2
AIT	1003	Hydraulic/Pneumatics Fundamentals.....	1
AIT	200	Process Management and Quality Control	4
AIT		Technical Elective (Approved by Program Coordinator)	3
		Total Credits	19

Advanced Integrated Technology

The Advanced Integrated Technology (AIT) program is a program of study that employs the principle of technology integration within sought after certifications: Multi-skilled Technician, Engineering Controls, Skilled Operator, Industrial Refrigeration, Electrical Maintenance Technician, and Industrial Mechanic certifications. Within each certification area, a systems approach is employed that is in line with the expectations of current day employers. The AIT program offers both online course-work and flexible lab hours.

The AIT graduate will have acquired a high level of mechanical and electrical skill sets that can provide them with opportunities to work in today’s technically advanced industrial settings (both in manufacturing and value-added 2nd tier support roles). These skill sets include robotics and PLC programming, drive configuration, advanced electric motor control, hydraulics/pneumatics, refrigeration and mechanical drive systems used in modern industry. The curriculum addresses mechanical and electrical theory and its application in today’s industrial environment. Critical thinking objectives are also incorporated that will expose the student

to problem solving strategies and techniques for troubleshooting the latest generation of high tech equipment.

Students enrolled in the Advanced Integrated Technology Programs are required to achieve a minimum grade of “C” in technical courses.

Associate in Applied Science

Advanced Integrated Technology - 1504997019

(Offered at MDC)

Required General Education:

MAT	126	Technical Algebra and Trigonometry OR	3
MAT	150	College Algebra OR	(3)
		Higher MAT course	(3)
PHY	151	Introductory Physics I AND.....	3
PHY	161	Introductory Physics I Lab OR	1
PHY	171	Applied Physics	(4)
ENG	101	Writing I OR.....	3
ENG	105	Writing: An Accelerated Course	(3)
		Social/Behavioral Science course	3
		Heritage/Humanities course (HIS 107 suggested)	3
		Subtotal	16

Technical Core:

AIT	100	Power Generation & Utilization.....	4
AIT	110	Power Distribution Systems	3
AIT	120	Equipment Installation	3
AIT	130	Measurement and Instrumentation	4
AIT	140	Industrial Controls I	4
AIT	150	Industrial Controls II	4
AIT	210	Equipment Maintenance.....	4
AIT	270	Introduction to Robotics and Programmable Logic Controllers.....	2
		Subtotal	28

Choose 16 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Advanced Integrated Technology Program Coordinator.

PLW	100	Introduction to Engineering Design	4
PLW	125	Principles of Engineering	4
ACR	100	Refrigeration Fundamentals	3
ACR	101	Refrigeration Fundamentals Lab	2
ACR	102	HVAC Electricity	3
ACR	103	HVAC Electricity Lab.....	2
ACR	130	Electrical Components	3
ACR	131	Electrical Components Lab	2
IMT	100	Welding for Maintenance	3
IMT	101	Welding for Maintenance Lab	2
CMM	112	Fundamentals of Machine Tools-B	4
AIT	135	Industrial Refrigeration I.....	3
AIT	160	Workplace Safety	1
AIT	200	Process Management and Quality Control	4
AIT	220	The Integrated Power Grid	3
AIT	230	Integrated Power Plant Operations.....	3
AIT	235	Industrial Refrigeration II	3
ELT	250	Programmable Logic Controllers.....	4
AET	250	PLC Networking.....	4
AET	270	Advanced PLC Programming.....	4
AIT	290	Selected Topics in Advanced Integrated Technology....0.1-5.0	
AIT	299	Advanced Electromechanical Concepts.....	4
AET	190	Industrial Computer Programming Concepts	4
		Approved Technical Courses	16
		Total	60

Demonstration of computer/digital literacy is required for the AAS degree.

Certificates

Multi-Skilled Technician – 1504993110

(Offered at MDC)

ACR	100	Refrigeration Fundamentals	3
ACR	101	Refrigeration Fundamentals Lab	2
IMT	100	Welding for Maintenance	3
IMT	101	Welding for Maintenance Lab	2
CMM	112	Fundamentals of Machine Tool-B	4
AIT	200	Process Management and Quality Control	4
AIT	270	Introduction to Robotics and Programmable Logic Controllers	2
Total			20

Engineering Controls – 1504993120

(Offered at MDC)

AIT	140	Industrial Controls I.....	4
AIT	150	Industrial Controls II.....	4
AET	190	Industrial Computer Programming Concepts	4
ELT	250	Programmable Logic Controllers.....	4
AET	250	PLC Networking.....	4
AET	270	Advanced PLC Programming.....	4
AIT	270	Introduction to Robotics and Programmable Logic Controllers	2
Total			26

Skilled Operator - 1504993190

(Offered at MDC)

AIT	100	Power Generation and Utilization	4
AIT	110	Power Distribution Systems	3
AIT	1203	Mechanical Installation	1
Total			8

Industrial Refrigeration – 1504993140

(Offered at MDC, MYC, SMC)

ACR	100	Refrigeration Fundamentals	3
ACR	101	Refrigeration Fundamentals Lab	2
ACR	102	HVAC Electricity	3
ACR	103	HVAC Electricity Lab	2
ACR	130	Electrical Components	3
ACR	131	Electrical Components Lab	2
AIT	135	Industrial Refrigeration I.....	3
AIT	235	Industrial Refrigeration II	3
Total			21

Multi-Skilled Maintenance Apprenticeship – 1504993150

(Offered at MDC)

AIT	1001	Basic Electrical Knowledge	2
AIT	1003	Hydraulic/Pneumatic Fundamentals	1
AIT	1101	Electrical Power Distribution.....	1
AIT	1102	Fluid Power Distribution	2
AIT	1201	Electrical Installation.....	1
AIT	1202	Piping, Pneumatic, and Installation	1
AIT	1203	Mechanical Installation	1
AIT	1301	Principles of Instrumentation.....	2
AIT	1302	Integrated Process Control	2
AIT	1401	Basic Electrical Controls	2
AIT	1402	Basic Pneumatic Controls	1
AIT	1403	Basic Hydraulic Controls	1
AIT	1501	Intermediate Electrical Controls.....	2
AIT	1502	Intermediate Pneumatic Controls	1
AIT	1503	Intermediate Hydraulic Controls	1
AIT	160	Workplace Safety	1
AIT	2101	Predictive/Preventive Maintenance and Lubrication.....	1
IMT	100	Welding for Maintenance	3
IMT	101	Welding for Maintenance Lab	2
Total			28

Ammonia Refrigeration Fundamentals – 1504993160

(Offered at MDC, MYC)

AIT	135	Industrial Refrigeration I.....	3
AIT	235	Industrial Refrigeration II	3
Total			6

Electrical Maintenance Technician – 1504993170

(Offered at)

AIT	1001	Basic Electrical Knowledge	2
AIT	1002	Power Development	1
AIT	1101	Electrical Power Distribution.....	1
AIT	1201	Electrical Installation.....	1
AIT	1301	Temperature, Pressure, Flow Level.....	2
AIT	1302	Integrated Process Control	2
AIT	1401	Basic Electrical Controls	2
AIT	1501	Intermediate Electrical Controls.....	2
AIT	270	Introduction to Robotics and Programmable Logic Controllers.....	2
Total			15

Industrial Mechanic – 1504993180

(Offered at)

AIT	1003	Hydraulic/Pneumatic Fundamentals	1
AIT	1102	Fluid Power Distribution	2
AIT	1202	Piping, Pneumatic, & Installation	1
AIT	1203	Mechanical Installation	1
AIT	1402	Basic Pneumatic Controls	1
AIT	1403	Basic Hydraulic Controls	1
AIT	1502	Intermediate Pneumatic Controls	1
AIT	1503	Intermediate Hydraulic Controls	1
AIT	2101	Predictive/Preventative Maintenance and Lubrication.....	1
AIT	2102	Power Transmission Systems	1
AIT	2103	Advanced Mechanical	2
Total			13

Advanced Manufacturing

The Fundamentals of Advanced Manufacturing certificates provide students with the foundational skills for a career in advanced manufacturing as well as for continued progress in any of the six advanced manufacturing programs offered at Gateway. After completion of these short-term certificates, students may apply for work while continuing their pathway toward more stackable credentials including other certificates, diplomas, and degrees.

Certificate

Fundamentals of Advanced Manufacturing & Mechatronics - 1506133089

(Offered at GTW)

MFG	102	Certified Production Technician.....	4-6
CIT	105	Introduction to Computers	3
ELT	110	Circuits I	5
MFG	125	Fundamentals of Mechatronics A	3
MFG	130	Fundamentals of Mechatronics B.....	3
Total Credits			18-20

Fundamentals of Advanced Manufacturing & Machining - 1506133099

(Offered at GTW)

MFG	102	Certified Production Technician.....	4-6
CIT	105	Introduction to Computers	3
CMM	110	Fundamentals of Machine Tools A.....	3
CMM	112	Fundamentals of Machine Tools B.....	4
CMM	118	Metrology Control Charts	2
Total Credits			16-18

Fundamentals of Advanced Manufacturing & Quality Control- 1506133110

(Offered at GTW)

MFG 102	Certified Production Technician.....	4-6
CIT 105	Introduction to Computers.....	3
BRX 110	Basic Blueprint Reading for Machinist.....	2
BRX 210	Mechanical Blueprint Reading.....	2
CMM 118	Metrology Control Charts.....	2
QMS 101	Introduction to Quality Systems.....	3
Total Credits		16-18

African American Studies

The African American Studies Certificate Program provides an interdisciplinary approach to identify and engage the historical and contemporary issues confronting Africans and African Americans. Core courses include African American history, literature, and music. Additional courses in communication, humanities, and social sciences complete the program.

Certificate

African American Studies - 0501013029

(Offered at ELC, JFC)

ENG 101	Writing I.....	3
HIS 260	African American History I.....	3
HIS 261	African American History II.....	3
MUS 207	African American Music History.....	3
ENG 264	Major Black Writers.....	3
	Elective*.....	3
Total Credits		18

*African American Studies Certificate Elective: (Required: 3 credits)

COM 299	African American Communication.....	3
ANT 160	Cultural Diversity in the Modern World.....	3
FLK 280	Cultural Diversity in the United States.....	3
SOC 235	Inequality in Society.....	3
MUS 104	Introduction to Jazz.....	3
HUM 150	Introduction to African Literature.....	3
REL 101	Introduction to Religious Studies.....	3
REL 130	Introduction to Comparative Religion.....	3
ART 104	Introduction to African Art.....	3
TA 299	Special Topics in Theatre.....	3

Agricultural Studies

The Agricultural Studies program provides students with the skills, knowledge, and experience necessary to enter the field of agriculture and enhance current skill sets. This program includes a Food and Farm Management Track, as well as a Production Agriculture Operations track.

The Food and Farm Management track emphasizes diversified agriculture and is designed for the new and beginning farmer. Upon graduation, the Food and Farm Management student will be trained in crop and livestock management, as well as business management, sales, and value added production. Cumulatively, these skills will empower the graduate to begin a diversified farming operation.

The Production Agriculture Operations track provides training and knowledge in large scale, commercial production agriculture businesses. Students will gain skills in crop management, agriculture technology, pest management, and crop scouting. This skill set will enable graduates to obtain positions with large farm operations or other businesses related to the agriculture industry.

Associate in Applied Science

Agricultural Studies – 0103017029

(Offered at HPC, OWC)

General Education:

ENG 101	Writing I.....	3
MAT 110	Applied Mathematics OR.....	3
MAT 126	Technical Algebra and Trigonometry OR.....	(3)
MAT 150	College Algebra.....	(3)
BIO 112	Introduction to Biology OR.....	3
BIO 150	Principles of Biology I.....	(3)
	Heritage/Humanities.....	3
AGR 101	Economics of Food and Agriculture.....	3
Subtotal		15

Technical Core:

	Digital Literacy.....	0-3
AGR 125	Introduction to Fertilizers and Soils.....	3
AGR 150	Agricultural Power.....	3
AGR 180	Agricultural Internship I.....	2
AGR 190	Agricultural Internship II.....	2
AGR 240	Introduction to Animal Science.....	3
AGR 250	Introduction to Plants/Crop Production.....	3
AGR 280	Livestock Management.....	3
AGS 115	Agriculture Maintenance.....	3
AGS 205	Forage Management OR.....	3
AGR 140	Issues in Agriculture.....	(3)
AGS 215	Weed Management.....	3
AGS 265	Agriculture Business and Records.....	2
AGS 295	Capstone.....	1
Subtotal		31-34

Food and Farm Management Track – 010301703

(Offered at OWC)

AGR 260	Introduction to Sustainable Agriculture.....	3
AGS 135	Herbaceous Plant Production.....	3
AGS 155	Greenhouse Production.....	3
AGS 175	Agriculture Marketing and Sales.....	2
AGS 225	Fruit and Vegetable Production.....	3
AGS 275	Value Added Production.....	3
COE 199	Cooperative Education OR.....	2
COED 198	Practicum.....	(2)
Track Subtotal		19
Total Credit Hours		65-68

Production Agriculture Operations Track – 010301704

(Offered at HPC, OWC)

AGR 130	Field Applications in Agriculture.....	2
AGR 200	Agricultural Internship III.....	2
AGS 145	Technology in Agriculture.....	3
AGS 235	Field Crop Production.....	3
AGS 245	Pest Management.....	3
AGS 255	Crop Scouting.....	3
AGS 285	Farm Financial Management.....	3
Track Subtotal		19
Total Credit Hours		65-68

Diploma

General Agricultural Studies -0103014029

(Offered at OWC)

ENG 101	Writing I.....	3
MAT 110	Applied Mathematics OR.....	3
MAT 126	Technical Algebra and Trigonometry OR.....	(3)
MAT 150	College Algebra.....	(3)
BIO 112	Introduction to Biology OR.....	3

BIO	150	Principles of Biology I	(3)
AGR	101	The Economics of Food and Agriculture	3
		Digital Literacy	0-3
AGR	125	Introduction to Fertilizers and Soils	3
AGR	150	Agricultural Power	3
AGR	180	Agricultural Internship I	2
AGR	240	Introduction to Animal Science	3
AGR	250	Introduction to Plants/Crop Production	3
AGS	115	Agriculture Maintenance	3
AGS	135	Herbaceous Plant Production	3
AGS	215	Weed Management	3
AGS	235	Field Crop Production	3
AGS	265	Agriculture Business and Records	2
		Total Credit Hours	40-43

Agricultural Technology

The Agricultural Technology program prepares students for occupations in a wide variety of jobs in agriculture (both production and value-added) with a range of skills and knowledge.

The curriculum addresses concepts in theory, skills and techniques that are required by the agriculture industry. It will use hands-on strategies, which require an integrated practicum across a variety of settings. Graduates will seek job opportunities in the agriculture industry on commercial farms and businesses related to the agriculture industry.

Associate in Applied Science

Agriculture Technology - 0103017019

(Offered at HEC, HPC, MDC)

General Education:

ENG	101	Writing I	3
ENG	102	Writing II	3
COM	252	Introduction to Interpersonal Communication	3
MAT	105	Mathematics for Business OR	3
MAT	110	Applied Mathematics OR	(3)
MAT	150	College Algebra	(3)
AGR	101	The Economics of Food and Agriculture	3
		Heritage/Humanities	3
BIO	112	Introduction to Biology AND	3
BIO	113	Introduction to Biology Lab OR	1
BIO	114	Biology I* AND	(3)
BIO	115	Biology I Lab* OR	(1)
BIO	116	Biology II* AND	(3)
BIO	117	Biology II Lab* OR	(1)
BIO	143	Zoology with Laboratory* OR	(4)
BIO	141	Botany with Laboratory* OR	(4)
BIO	150	Principles of Biology I* AND	(3)
BIO	151	Principles of Biology Lab I*	(2)
CHE	130	Introductory General and Biological Chemistry OR	4
CHE	140	Introductory General Chemistry AND	(3)
CHE	145	Introductory General Chemistry Lab I OR	(1)
CHE	170	General College Chemistry I AND	(3)
CHE	175	General College Chemistry Lab I	(1)
		Subtotal	26-27

Technical Core:

AGR	125	Introduction to Fertilizers and Soils	3
AGR	140	Issues in Agriculture	3
AGR	180	Agricultural Internship I	2
AGR	230	Career Development in Agriculture	3
AGR	240	Introduction to Animal Science OR	3
ASC	106	Agriculture Animal Science	(3)
AGR	250	Introduction to Plants/Crop Production	3
		Digital Literacy	3
		Electives	5
		Subtotal	25

Agricultural Technology Track – 010301701

(Offered at HEC, HPC, MDC)

AGR	130	Field Applications in Agriculture	2
AGR	150	Agriculture Power	3
AGR	170	Introduction to Equipment, Machines, and Engines	3
AGR	190	Agricultural Internship II	2
AGR	200	Agricultural Internship III	2
AGR	220	Computers in the Agricultural Environment	3
		Subtotal	15

Total Credits Agricultural Technology Track 66-67

Sustainable Agriculture Track – 010301702

(Offered at HEC, MDC)

AGR	160	Horticulture Science	3
AGR	260	Introduction to Sustainable Agriculture	3
AGR	270	Introduction to Organic Agriculture	3
BAS	160	Introduction to Business	3
BAS	282	Principles of Marketing	3
		Subtotal	15

Total Credits Sustainable Agriculture Track 66-67

Diploma

Agricultural Technology -0103014019

(Offered at HEC, HPC, MDC)

		General Education Courses:	.....
		Written Communication, Oral Communications, or	
		Humanities/Heritage	3
AGR	101	The Economics of Food and Agriculture	3
		Subtotal	6

Technical Courses:

AGR	125	Introduction to Fertilizers and Soils	3
AGR	130	Field Applications in Agriculture	2
AGR	140	Issues in Agriculture	3
AGR	150	Agricultural Power	3
AGR	170	Introduction to Equipment, Machines, and Engines	3
AGR	180	Agricultural Internship I	2
AGR	190	Agricultural Internship II	2
AGR	200	Agricultural Internship III	2
AGR	220	Computers in the Agricultural Environment	3
AGR	230	Career Development in Agriculture	3
AGR	240	Animal Science	3
AGR	250	Introduction to Plants/Crop Production	3
		Digital Literacy	3
		Subtotal	35

Total Credits 41

Certificates

Agricultural Technician - 0103013009

(Offered at HEC, HPC, HZC, MDC)

AGR	140	Issues in Agriculture	3
AGR	150	Agricultural Power	3
		Digital Literacy	3
AGR	230	Career Development in Agriculture	3
AGR	180	Agricultural Internship I	2
AGR	125	Introduction to Fertilizers and Soils	3
AGR	190	Agricultural Internship II	2
AGR	170	Introduction to Equipment, Machines, and Engines	3
AGR	130	Field Applications in Agriculture	2
		Total Credits	24

Sustainable Agriculture – 0103013029

(Offered at HEC, HZC, MDC)

AGR 140	Issues in Agriculture.....	3
AGR 260	Introduction to Sustainable Agriculture.....	3
BAS 160	Introduction to Business.....	3
AGR 250	Introduction to Plants and Crop Production.....	3
AGR 240	Animal Science.....	3
AGR 125	Introduction to Fertilizers and Soils.....	3
AGR 160	Horticulture Science.....	3
AGR 270	Introduction to Organic Agriculture.....	3
BAS 282	Principles of Marketing.....	3
	Total Credits	27

Electives**.....	10-12
Subtotal Credits	42-48

Total Credits 60-66

Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Diploma

Heating, Ventilation, and Air Conditioning Mechanic - 4702014009

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1 =	Written Communication, Oral Communications, OR Humanities/Heritage.....	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences OR Quantitative Reasoning.....	3
	Subtotal Credits	6
	Digital Literacy course OR demonstrated competency.....	0-3
ACR 100	Refrigeration Fundamentals.....	3
ACR 101	Refrigeration Fundamentals Lab.....	2
ACR 102	HVAC Electricity AND.....	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components.....	3
ACR 131	Electrical Components Lab.....	2
ACR 170	Heat Load/Duct Design OR.....	3
ACR 209	Manual N Commercial Load Calculations & Design.....	(4)
ACR 250	Cooling and Dehumidification.....	3
ACR 251	Cooling and Dehumidification Lab.....	2
ACR 260	Heating and Humidification.....	3
ACR 262	Heating and Humidification Lab.....	2
ACR 270	Heat Pump Application AND.....	3
ACR 271	Heat Pump Application Lab OR.....	2
ACR 207	Commercial HVAC Systems.....	(5)
ACR 291	Special Problems OR.....	1
ACR 298	Practicum.....	2
	Electives**.....	8-11
	Subtotal Credits	41-50
	Total Credits	47-56

*Comparable Electrical Courses:

EET 154	Electrical Construction I AND.....	(2)
EET 155	Electrical Construction I Lab OR.....	(2)
EET 112	Basic Electrical Theory: AND.....	(3)
EET 113	Basic Electrical Theory Lab OR.....	(1)
ELT 110	Circuits I OR.....	(5)
IMT 110	Industrial Maintenance Electrical Principles AND.....	(3)
IMT 111	Industrial Maintenance Electrical Principles Lab.....	(2)
	OR Consent of the instructor	

Certificates

Environmental Control System Servicer - 4702013039

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Quantitative Reasoning.....	3 credit hours
Natural Sciences.....	3 credit hours
Social/Behavioral Sciences.....	3 credit hours
Heritage/Humanities.....	3 credit hours
Written Communication.....	3 credit hours
Oral Communications.....	3 credit hours
Subtotal Credits	18

Technical Courses:

	Digital Literacy.....	0-3
ACR 100	Refrigeration Fundamentals.....	3
ACR 101	Refrigeration Fundamentals Lab.....	2
ACR 102	HVAC Electricity AND.....	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components.....	3
ACR 131	Electrical Components Lab.....	2
ACR 170	Heat Load/Duct Design.....	3
ACR 250	Cooling and Dehumidification.....	3
ACR 251	Cooling and Dehumidification Lab.....	2
ACR 260	Heating and Humidification.....	3
ACR 262	Heating and Humidification Lab.....	2
ACR 270	Heat Pump Application.....	3
ACR 271	Heat Pump Application Lab.....	2

ACR 100	Refrigeration Fundamentals.....	3
ACR 101	Refrigeration Fundamentals Lab.....	2
ACR 102	HVAC Electricity AND.....	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components.....	3
ACR 131	Electrical Components Lab.....	2
ACR 250	Cooling and Dehumidification.....	3
ACR 251	Cooling and Dehumidification Lab.....	2
ACR 260	Heating and Humidification.....	3
ACR 261	Heating and Humidification Lab.....	3
	Total Credits	24-25

Air Conditioning Technology

Installing and servicing heating, air conditioning and refrigeration equipment is the focus of this program. Academic courses, theory courses, and laboratory experiences are designed to promote success in the air conditioning field.

The Boiler Maintenance Certificate is designed to complement our Associate in Applied Science (AAS) and Diploma for students enrolled in Air Conditioning Technology Program. Installing, initial start-up and servicing commercial boilers used in HVAC applications is the focus of this certificate. Theory courses and laboratory experiences are designed to promote success in boiler service and facility management.

The Chiller Certificate is designed to complement our Associate in Applied Science and Diploma for students enrolled in Air Conditioning Technology Program. Installing and servicing Chillers used in commercial and industrial applications is the focus of this certificate. Theory courses and laboratory experiences are designed to promote success in the service and maintenance of Chillers.

Students enrolled in the Air Conditioning Technology program must achieve a minimum grade of "C" in each technical course.

Associate in Applied Science

Air Conditioning Technology - 4702017019

(Offered at BLC, BSC, ELC, MDC, SKY)

General Education:

Quantitative Reasoning.....	3 credit hours
Natural Sciences.....	3 credit hours
Social/Behavioral Sciences.....	3 credit hours
Heritage/Humanities.....	3 credit hours
Written Communication.....	3 credit hours
Oral Communications.....	3 credit hours
Subtotal Credits	18

Technical Courses:

	Digital Literacy.....	0-3
ACR 100	Refrigeration Fundamentals.....	3
ACR 101	Refrigeration Fundamentals Lab.....	2
ACR 102	HVAC Electricity AND.....	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components.....	3
ACR 131	Electrical Components Lab.....	2
ACR 170	Heat Load/Duct Design.....	3
ACR 250	Cooling and Dehumidification.....	3
ACR 251	Cooling and Dehumidification Lab.....	2
ACR 260	Heating and Humidification.....	3
ACR 262	Heating and Humidification Lab.....	2
ACR 270	Heat Pump Application.....	3
ACR 271	Heat Pump Application Lab.....	2

Environmental System Repair Helper - 4702013069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 102	HVAC Electricity AND	3
ACR 103	HVAC Electricity Lab OR.....	2
ACR 130	Electrical Components AND	(3)
ACR 131	Electrical Components Lab OR.....	(2)
	Comparable Electrical Course*.....	(4-5)
	Total Credits	9-10

Domestic Air Conditioner and Furnace Installer- 4702013029

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 102	HVAC Electricity AND	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components	3
ACR 131	Electrical Components Lab	2
ACR 170	Heat Load/Duct Design.....	3
ACR 250	Cooling and Dehumidification	3
ACR 251	Cooling and Dehumidification Lab	2
ACR 260	Heating and Humidification.....	3
ACR 262	Heating and Humidification Lab	2
ACR 270	Heat Pump Application	3
ACR 271	Heat Pump Application Lab.....	2
ACR 290	Journeyman Preparation	3
	Total Credits	35-36

Refrigeration Mechanic - 4702013059

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 102	HVAC Electricity AND	3
ACR 103	HVAC Electricity Lab OR.....	2
	Comparable Electrical Course*.....	(4-5)
ACR 130	Electrical Components	3
ACR 131	Electrical Components Lab	2
ACR 200	Commercial Refrigeration	3
ACR 201	Commercial Refrigeration Lab.....	2
ACR 210	Ice Machines.....	3
ACR 250	Cooling and Dehumidification	3
ACR 251	Cooling and Dehumidification Lab	2
	Total Credits	27-28

Boiler Maintenance – 4702013079

(Offered at MDC, MYC, SEC, SMC, WKC)

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 102	HVAC Electricity AND	3
ACR 103	HVAC Electricity Lab OR.....	2
ACR 206	Boilers	5
ACR 207	Commercial HVAC Systems	5
	Total Credits	20

Chiller Maintenance – 4702013089

(Offered at MDC, MYC, SEC, SMC, WKC)

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 102	HVAC Electricity AND	3
ACR 103	HVAC Electricity Lab OR.....	2
ACR 208	Chillers	5
ACR 209	Manual N Load Calculation & Design.....	4
	Total Credits	19

Air Conditioning Technical Electives**:

This list is not all-inclusive. Other courses may be taken with approval of the program instructor/advisor.

ACR 112	Sheet Metal Fabrication.....	3
ACR 113	Sheet Metal Fabrication Lab	2
ACR 290	Journeyman Preparation	3
ACR 291	Special Problems I.....	1
ACR 293	Special Problems II	2
ACR 295	Special Problems III	3
ACR 298	Practicum	2
ACR 299	Cooperative Education Program	2
BAS 160	Introduction to Business.....	3
FPX 100	Fluid Power	3
FPX 101	Fluid Power Lab.....	2
ETT 110	Voice and Data Installer Level 1	4
ETT 114	Voice and Data Installer Level II.....	4
ETT 116	Fiber Optics Systems.....	3
ETT 118	Residential Network Wiring	3
ETT 120	Project Management	3
ETT 122	Voice and Data Installer Technician	3
ETT 123	Voice and Data Installer Technician Lab	2
EET 102	Advanced Mathematics for Electronics	2
EET 116	Web Page Design	3
EET 148	Electronic Drafting	3
EET 150	Transformers	2
EET 151	Transformers Lab.....	1
EET 198	Practicum	2
EET 199	Cooperative Education Program	2
EET 214	Television and Radio Systems.....	6
EET 215	Television and Radio Systems Lab	4
EET 216	Computer Electronics Fundamentals	3
EET 217	Computer Electronics Fundamentals Lab	2
EET 218	Computer Applications I	3
EET 219	Computer Applications I Lab	2
EET 242	Robotics.....	3
EET 243	Robotics Lab.....	2
EET 244	Advanced Electronic Application.....	6
EET 250	National Electric Code	4
EET 252	Electrical Construction II	2
EET 254	Electrical Construction	3
EET 255	Electrical Construction Lab.....	4
EET 260	Home Automated Technology	2
EET 264	Rotating Machinery	2
EET 265	Rotating Machinery Lab	2
EET 266	Rotating Machinery and Transformers	3
EET 267	Rotating Machinery and Transformers Lab.....	3
EET 268	Rotating Machinery Electrical Motor Controls I.....	3
EET 269	Rotating Machinery and Motor Controls I Lab.....	4
EET 270	Electrical Motor Controls I.....	2
EET 271	Electrical Motor Controls I Lab.....	2
EET 272	Electrical Motor Controls II	2
EET 273	Electrical Motor Controls II Lab.....	2
EET 274	Electrical Motor Controls.....	3
EET 275	Electrical Motor Controls Lab	4
EET 276	Programmable Logic Controllers.....	2
EET 277	Programmable Logic Controllers Lab	2
EET 278	Electrical Motor Controls II and PLCs.....	3
EET 279	Electrical Motor Controls II and PLCs Lab	4
EET 281	Special Problems I	1
EET 283	Special Problems II	2
EET 285	Special Problems III	3
EET 286	Programmable Logic Controllers II	2
EET 287	Programmable Logic Controllers II Lab	2
EET 298	Practicum	1-8
EET 299	Cooperative Education Program	1-8
ELT 114	Circuits II	5
BRX 110	Basic Blueprint Reading for Machinist	2
BRX 112	Blueprint Reading for Machinist	4
BRX 120	Basic Blueprint Reading	3
BRX 210	Mechanical Blueprint Reading for Machinist	2

BRX	220	Blueprint Reading for Construction.....	3
BRX	230	Mechanical Blueprint Reading.....	3
BEX	100	Basic Electricity for Non-Majors.....	3
BEX	101	Basic Electricity Lab for Non-Majors	2
FEX	100	Fundamentals of Electricity for Non-Majors.....	3
ELT	102	Blueprint Reading	2
ELT	106	Mechanical Engineering Graphics	2
ELT	107	Computer Applications for Technicians	4
ET	113	Laser Optics Components	3
ELT	118	Computer Numerical Control	3
ET	119	Introduction to Computer –Aided Manufacturing.....	3
ELT	122	Mechanical Power Transmission Systems	3
MNG	123	Mining Electricity I.....	4
ELT	124	Mechanical Power Transmission Systems Lab.....	1
ELT	201	Statics and Strength of Materials	4
ELT	210	Devices I	3
ELT	232	Computer Software Maintenance.....	3
ELT	234	Computer Hardware Maintenance	3
ELT	243	Electric Power Distribution.....	3
ELT	244	Electrical Machinery and Controls	4
ELT	250	Programmable Logic Controllers.....	4
ET	252	Electric Power Systems	3
ELT	256	Microprocessor Fundamentals.....	4
ET	260	Fluid Flow and Heat Transfer	5
ELT	261	Instrumentation and Measurements	3
ELT	262	Measurement and Instrumentation	4
ELT	264	Mechanical Design	4
ELT	265	Applied Fluid Power	3
MNG	286	Roof Control and Ventilation	3
ELT	290	Selected Topics in Engineering Technology: (Topic)	1-4
ELT	295	Independent Problems.....	1-2
ME	205	Introduction to Computer Graphics.....	3
ME	220	Engineering Thermodynamics I.....	3
WLD	152	Basic Welding B	5
WLD	100	Oxy-Fuel Systems	2
WLD	101	Oxy-Fuel Systems Lab.....	2
WLD	110	Cutting Processes.....	2
WLD	111	Cutting Processes Lab	2
WLD	120	Shielded Metal Arc Welding.....	2
WLD	121	Shielded Metal Arc Welding Fillet Lab	2
PLB	100	Basic Theory of Plumbing	3
PLB	105	Plumbing Principles.....	3
PLB	150	Plumbing, Introduction to the Trade	3
PLB	151	Basic Plumbing Skills.....	3

Appalachian Studies

The Appalachian Studies certificate will provide students a wide variety of academic directions to follow. The key components for each track, Humanities 202, 203, and 204, will form the core for the Appalachian Studies certificate and will provide a basic overview of all aspects of Appalachian studies. Given this core, students can then select a more focused aspect of Appalachian culture to study.

Certificate

Appalachian Studies - 0501223069

(Offered at ASC, SEC)

Core:

HUM	202	Survey of Appalachian Studies I	3
HUM	203	Survey of Appalachian Studies II	3
HUM	204	Appalachian Seminar	3
		Subtotal	9

Communication Track - 050122301

(Offered at ASC, SEC)

COM	254	Introduction to Intercultural Communication OR	3
		Elective approved by Appalachian Studies Committee or its designee	(3)
		Total	12

Creative Writing Track - 050122302

(Offered at ASC, SEC)

ENG	207	Beginning Workshop in Imaginative Writing OR.....	3
		Elective approved by Appalachian Studies Committee or its designee	(3)
		Total	12

Music Track - 050122303

(Offered at ASC, SEC)

MU	101	Folk and Traditional Music of the Western Continents	3
		Total	12

Science Track - 050122304

(Offered at ASC, SEC)

BIO	120	Human Ecology OR.....	3
		Elective approved by Appalachian Studies Committee or its designee	(3)
GLY	101	Physical Geology.....	3
GLY	111	Laboratory for Physical Geology.....	1
		Total	16

Social Science Track - 050122305

(Offered at ASC, SEC)

SWK	275	The Family OR.....	3
		Elective approved by Appalachian Studies Committee or its designee	(3)
ANT	220	Intro to Cultural Anthropology	3
		Total	15

Applied Process Technologies

Prepares the graduate for entry-level operations in the power plant, line-man, chemical, petro-chemical, refining, and general industries. Teaches students about automated and semi-automated systems used in various industries. Prepares students in the safe start-up, operation and shut-down of various system components and units. Offers a choice of AAS degree with chemical/refinery operator, power plant operator, and line-man technology, as well as certificate tracks.

Students selecting the certificate options must test at the MAT126 ready level. Progression in the program is contingent upon achievement of a grade of "C" or higher in the Math, Physics, Chemistry and technical courses and maintenance of a 2.0 cumulative grade point average or better on a 4.0 scale.

Associate in Applied Science

Applied Process Technologies - 4103017029

(Offered at ASC, JFC)

General Education Courses

MAT	126	Technical Algebra & Trigonometry (Recommended) OR.....	3
MAT	116	Technical Mathematics	(3)
CHE	130	Introductory General & Biological Chemistry OR	4
CHE	140/145	Introduction to General Chemistry with Lab	(4)
ENG	101	Writing I	3
		Social/Behavioral Sciences OR.....	3

ECO	101	Contemporary Economic Issues (Recommended).....	(3)
		Heritage/Humanities	3
COM	252	Introduction to Interpersonal Communication.....	3
		Subtotal	19

APT	144	Process Operations.....	4
APT	146	Process Applications.....	2
EES	101	Basic Electronics	2
		Total	31

Technical Core Courses

		Digital Literacy Course.....	3
PHS	175	Applied Physics (Recommended) OR	6
PHY	171	Applied Physics	(4)
SFA	101	OSHA, Health, and Environmental Safety	3
APT	102	Process Fundamentals.....	4
APT	104	Rotating & Reciprocating Equipment	3
APT	106	Process Chemistry.....	2
APT	108	Stationary Equipment.....	2
APT	202	Federally Mandated Training.....	3
APT	204	Safety Skills Training.....	1
APT	251	Application of Process Operations OR	2
APT	291	Special Problems in APT	(2-3)
EES	101	Basic Electronics	2
		Subtotal	29-32

Chemical/Refinery Operator Track - 410301701

(Offered at ASC, JFC)

APT	142	Instrumentation.....	4
APT	144	Process Operations.....	4
APT	146	Process Applications.....	2
APT	148	Process Operations Safety.....	2
		Subtotal	12
		Total	60-63

Power Plant Operator Track - 410301702

(Offered at ASC, JFC)

APT	142	Instrumentation.....	4
APT	154	Power Plant Practice	6
APT	156	Power Plant Protection.....	2
		Subtotal	12
		Total	60-63

Lineman Technology Track - 410301703

(Offered at ASC, JFC)

APT	158	Lineman Technology I.....	3
APT	159	Lineman Technology I Lab.....	4
EET	150	Transformers	2
EET	151	Transformer Lab	1
APT	258	Lineman Technology II	3
APT	259	Lineman Technology II Lab.....	4
		Subtotal	17
		Total	65-68

Electives

APT	299	Cooperative Education Program.....	(1-6)
COE	199	Co-op.....	(1-8)
QMS	101	Introduction to Quality Systems	(3)
EX	196	Experiential Education	(1-6)

Certificate

Chemical/Refinery Operator - 4103013039

SFA	101	OSHA, Health and Environmental Safety	3
COM	252	Introduction to Interpersonal Communication.....	3
CHE	130	Introductory General & Biological Chemistry OR	4
CHE	140/145	Introduction to General Chemistry with Lab.....	(4)
APT	102	Process Fundamentals.....	4
APT	104	Rotating & Reciprocating Equipment	3
APT	108	Stationary Equipment.....	2
APT	142	Instrumentation.....	4

Industrial Worker - 1507013019

(Offered at ASC, JFC)

SFA	101	OSHA, Health, and Environmental Safety	3
		Total	3

Lineman - 4103013049

(Offered at ASC)

APT	158	Lineman Technology I.....	3
APT	159	Lineman Technology I Lab.....	4
EET	150	Transformers	2
EET	151	Transformers Lab.....	1
APT	258	Lineman Technology II	3
APT	259	Lineman Technology II Lab.....	4
EES	101	Basic Electronics	2
TRU	100	Truck Driving.....	6
		Total	25

Power Plant Operator - 4103013029

SFA	101	OSHA, Health and Environmental Safety	3
COM	252	Introduction to Interpersonal Communication.....	3
CHE	130	Introductory General & Biological Chemistry OR	4
CHE	140/145	Introduction to General Chemistry with Lab.....	(4)
APT	102	Process Fundamentals.....	4
APT	104	Rotating & Reciprocating Equipment	3
APT	108	Stationary Equipment.....	2
APT	142	Instrumentation.....	4
APT	154	Power Plant Practice	6
APT	156	Power Plant Protection	2
EES	101	Basic Electronics	2
		Total	33

Apprenticeship Studies

This program is designed to complement specialized study in a national or state approved apprentice curriculum (i.e. 2000 hours per year on the job in a supervised work environment and 144 hours per year of related classroom instruction). Prerequisite: Completion of national/state certified apprenticeship program.

Associate in Applied Science

Apprenticeship Studies - 4799997010

(Offered at ELC, GTW, JFC, WKC)

Required:

		Quantitative Reasoning.....	3
		Heritage/Humanities	3
		Social/Behavioral Sciences	3
ENG	101	Writing I	3
		Oral Communications	3
PHY	171	Applied Physics OR	4
		Other Natural Sciences course with consent of program coordinator	(3)
		Subtotal	18-19

Technical Core:

Computer/Digital Literacy course OR demonstrated competency	0-3
Apprenticeship Credit*	42
Subtotal	42-45
Total Credits	60-64

*Apprenticeship credit requirement can be met by a combination of apprenticeship credit (APS 201: 20-40 credit hours) and other technical courses as approved by the program coordinator.

Architectural Technology

The Architectural Technology program provides instruction in the concepts and skills required for careers in architectural and related professions involved in designing for the built environment. At the core of the curriculum are a series of architectural studios where students prepare construction documents. The series begins with a study of residential construction and culminates with commercial. Emphasis is placed on quality graphic communication, the development of design skills and a thorough understanding of a variety of construction types. Complementing the studio sequence are courses designed to provide instruction in building materials, structures, mechanical/electrical systems, professional practices, and architectural theory and history. Electives in the program allow students to customize their education to fit their interests. Given the wide range of topics covered in the curriculum, graduates are prepared to find employment in architectural and related professional offices including positions in construction estimating, civil engineering, structural engineering, mechanical/electrical engineering, construction management, computer-aided drafting, building code enforcement, specification writing, urban planning, historic preservation, contracting, sub-contracting, and building material sales and marketing.

Associate in Applied Science

Architectural Technology - 1513037019

(Offered at BLC)

ACH 100	Construction Documents I	3
ACH 110	Survey of the Architectural Profession	1
ACH 120	Theory and History of Architecture I	3
ACH 150	Construction Documents II	3
ACH 160	Building Materials and Construction I	3
ACH 161	Building Materials and Construction II	3
ACH 170	Theory and History of Architecture II	3
ACH 175	Introduction to Systems	3
ACH 195	Computer Aided Drafting I	3
ACH 200	Construction Documents III	3
ACH 225	Structures	3
ACH 250	Construction Documents IV	3
ACH 260	Office Practice	3
ACH 275	Mechanical and Electrical Systems	3
	Technical Courses ** (see list below)	10
ENG 101	Writing I	3
MAT 116	Technical Mathematics OR	3
MAT 150	College Algebra OR	(3)
	Other Quantitative Reasoning course approved by program coordinator	(3)
	Heritage/Humanities	3
	Natural Sciences Course	3
	Social/Behavioral Sciences Course	3
	Digital Literacy	0-3
Total		65-68

**Technical Courses

ACH 180	Selected Topics in Architectural Technology: (Topic)	1-3
ACH 194	Visual Composition	3
ACH 198	Practicum in Architectural Technology	1-3
ACH 280	Revit/Building Information Modeling	2
ACH 290	Building Codes I	3
ACH 291	Construction Management	3
ACH 292	Building Codes II	3
ACH 293	Presentation Techniques	3
ACH 294	Specification Writing	3
ACH 295	Computer Aided Drafting II	3
ACH 297	Estimating Techniques	3
ACH 298	Computer 3D Modeling	3
COE 199	Cooperative Education: Arch Tech	1-3

Additional Suggested General Education Courses (Not Required)

ENG 102	Writing II	3
	Oral Communication Course	3

Auto Body/Collision Repair Technology

From repairing small dents to rebuilding the bodies of wrecked or damaged vehicles, this program maintains the current commercial standards. Students are taught the types of materials used in filler compounds, the colors and chemical make-up of paints used to refinish, welding and cutting procedures, design and installation of trim, cost estimating and preparation for finish work. All are skills applied in actual jobs performed in shop assignments.

Progression in the Auto Body/Collision Repair Technology program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average.

Diploma

Collision Repair Technician - 4706034019

(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)

General Education Courses:

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
Subtotal		6

Technical Courses:

	Digital Literacy course OR demonstrated competency	0-3
CRT 100	Introduction to Collision Repair	2
CRT 130	Non-Structural Analysis and Damage Repair	6
CRT 131	Non-Structural Analysis and Damage Repair Lab	6
CRT 150	Painting and Refinishing	6
CRT 151	Painting and Refinishing Lab	6
CRT 230	Structural Analysis and Damage Repair	6
CRT 231	Structural Analysis and Damage Repair Lab	6
CRT 250	Mechanical and Electrical Components	6
CRT 251	Mechanical and Electrical Components Lab	6
CRT 198	Practicum OR	1
CRT 199	Cooperative Education	(1)
Subtotal		51-54
Total Credits		57-60

Recommended Program Electives

CRT 298	Advanced Practicum OR	(2)
CRT 299	Advanced Cooperative Education	(2)

Certificates

Automotive Painter - 4706033119

(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)

Technical Courses:

CRT 100	Introduction to Collision Repair	2
CRT 130	Non-Structural Analysis and Damage Repair	6
CRT 131	Non-Structural Analysis and Damage Repair Lab	6
CRT 150	Painting and Refinishing	6
CRT 151	Painting and Refinishing Lab	6
CRT 230	Structural Analysis and Damage Repair	6
CRT 231	Structural Analysis and Damage Repair Lab	6
	Total Credits	38

Automotive Painter Helper - 4706033029

(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)

Required:

CRT 100	Introduction to Collision Repair	2
CRT 150	Painting and Refinishing	6
CRT 151	Painting and Refinishing Lab	6
	Total Credits	14

Collision Repair Helper - 4706033059

(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)

Required:

CRT 100	Introduction to Collision Repair	2
	Electives (Collision Repair Courses with the exception of CRT 150 and CRT 151)	12
	Total Credits	14

Collision Repairer - 4706033109

(Offered at BSC, GTW, HZC, SEC, SKY)

CRT 100	Introduction to Collision Repair	2
CRT 130	Non-Structural Analysis and Damage Repair	6
CRT 131	Non-Structural Analysis and Damage Repair Lab	6
CRT 150	Painting and Refinishing	6
CRT 151	Painting and Refinishing Lab	6
CRT 230	Structural Analysis and Damage Repair	6
CRT 231	Structural Analysis and Damage Repair Lab	6
CRT 250	Mechanical and Electrical Components	6
CRT 251	Mechanical and Electrical Components Lab	6
	Total Credits	50

Automotive Technology

Instruction in systems such as engines, fuel, on-board computers, transmissions, steering, suspension, and brakes is the basis for this program.

The Automotive Technician option provides knowledge of the various systems used to develop skills in troubleshooting, performing preventative maintenance, servicing and repairing automobiles. The program, which is designed to be completed in two years, prepares graduates for entry-level service technician jobs in the auto repair industry. The student may be provided a work-study experience alternating between periods of work on-site and work in a classroom-laboratory setting.

The Parts/Service Writer option provides knowledge of the various systems and components and how they relate. This knowledge enables the student to more accurately interpret their customers' automotive complaints, identify and sell automotive parts, and provide efficient customer service within the automotive service and repair industry. The student may take the ASE exams in these areas when they have completed the requirements for these tests.

The Hybrid and Electric Vehicle Technician certificate complements the Associate in Applied Science degree and is designed for students to increase and develop the basic knowledge and skills necessary for diagnosing and repairing hybrid and electric vehicles. The additional credential is designed for students who wish to enhance their knowledge of hybrid and electric vehicles. This credential will make the student more employable in the automotive repair field.

Note: Hours Exception (69-72 for the A.A.S. and 61-64 for the Diploma) approved by the KCTCS Board of Regents in March 2011

Associate in Applied Science

Automotive Technology - 4706047019

(Offered at BLC, BSC, ELC, HZC, JFC, OWC, SKY, WKC)

General Education:

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/ Humanities	3
Written Communication	3
General Education Total Credit Hours:	15

Technical Core:

	Digital Literacy course OR demonstrated competency	0-3
ADX 120	Basic Automotive Electricity	3
ADX 150	Engine Repair	3
ADX 170	Climate Control	3
ADX 260	Electrical Systems	3
AUT 110	Brake Systems	3
AUT 130	Manual Transmissions	3
AUT 140	Basic Fuel and Ignition Systems	3
AUT 142	Emission Systems	3
AUT 160	Suspension and Steering	3
AUT 180	Automatic Transmission/Transaxle	3
AUT 240	Computer Control Systems and Diagnosis	3
	Total Technical core credits	33-36

Automotive Technician Track - 470604701

(Offered at BLC, BSC, ELC, HZC, JFC, OWC, SKY, WKC)

ADX 121	Basic Automotive Electricity Lab	2
ADX 151	Engine Repair Lab	2
ADX 171	Climate Control Lab	1
ADX 261	Electrical Systems Lab	2
AUT 111	Brake Systems Lab	2
AUT 131	Manual Transmissions Lab	2
AUT 141	Basic Fuel and Ignition Systems Lab	2
AUT 143	Emission Systems Lab	2
AUT 161	Suspension and Steering Lab	2
AUT 181	Automatic Transmission/Transaxle Lab	2
AUT 241	Computer Control Systems and Diagnosis Lab	2
	Subtotal Credits:	21

Total Credits: **69-72**

Automotive Parts/Service Writer Track - 470604702

(Offered at JFC, OWC)

ISX 100	Industrial Safety	3
TQX 110	Total Quality Management	3
B&E 100	Introduction to Business and Economics	1
ACT 101	Fundamentals of Accounting I	3
TEC 100	Communication for Business and Industry OR	3
CMS 152	Writing for Business and Industry	3
	Subtotal Credits:	13

Total Credits: **61-64**

Diploma

Automotive Technician - 4706044019

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1= Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2= Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
General Education Total Credit Hours	6

Technical Core:

	Digital Literacy course OR demonstrated competency	0-3
ADX 120	Basic Automotive Electricity	3
ADX 121	Basic Automotive Electricity Lab.....	2
ADX 150	Engine Repair	3
ADX 151	Engine Repair Lab.....	2
ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
ADX 260	Electrical Systems	3
ADX 261	Electrical Systems Lab	2
AUT 110	Brake Systems	3
AUT 111	Brake Systems Lab.....	2
AUT 130	Manual Transmissions	3
AUT 131	Manual Transmissions Lab.....	2
AUT 140	Basic Fuel and Ignition Systems	3
AUT 141	Basic Fuel and Ignition Systems Lab	2
AUT 142	Emission Systems	3
AUT 143	Emission Systems Lab.....	2
AUT 160	Suspension and Steering	3
AUT 161	Suspension and Steering Lab.....	2
AUT 180	Automatic Transmission/Transaxle	3
AUT 181	Automatic Transmission/Transaxle Lab.....	2
AUT 240	Computer Control Systems and Diagnosis	3
AUT 241	Computer Control Systems and Diagnosis	2
	Any approved work experience component	1
	Subtotal Credits:	55-58
	Total Credits:	61-64

Automotive Parts/Service Writer - 4706044029

(Offered at JFC, OWC)

General Education:

Area 1= Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2= Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
General Education Total Credit Hours	6

Technical or Support Courses:

	Digital Literacy course OR demonstrated competency	0-3
ADX 120	Basic Automotive Electricity	3
ADX 150	Engine Repair	3
ADX 170	Climate Control	3
ADX 260	Electrical Systems	3
AUT 110	Brake Systems	3
AUT 130	Manual Transmissions	3
AUT 140	Basic Fuel and Ignition Systems	3
AUT 142	Emission Systems	3
AUT 160	Suspension and Steering	3
AUT 180	Automatic Transmission/Transaxle	3
AUT 240	Computer Control Systems and Diagnosis	3
ISX 100	Industrial Safety	3
TQX 110	Total Quality Management.....	3
B&E 100	Introduction to Business and Economics	1

TEC 100	Communication for Business and Industry OR.....	3
CMS 152	Writing for Business and Industry	3
ACT 101	Fundamentals of Accounting I	3
	Any approved work experience component	1

Technical or Support Courses

Total Credit Hours: 47-50 credits

Total Credits: 53-56 credits

Certificates

Automotive Air Conditioning Mechanic - 4706043019

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
	Total Credits	4

Automotive Electrician - 4706043039

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

ADX 120	Basic Automotive Electricity AND.....	3
ADX 121	Basic Automotive Electricity Lab.....	2
ADX 260	Electrical Systems	3
ADX 261	Electrical Systems Lab	2
	Total Credits	10

Manual Transmission/Drive Train Technician - 4706043059

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

AUT 130	Manual Transmissions	3
AUT 131	Manual Transmissions Lab	2
	Total Credits	5

Automatic Transmission/Transaxle Technician - 4706043079

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

AUT 180	Automatic Transmission/Transaxle	3
AUT 181	Automatic Transmission/Transaxle Lab.....	2
	Total Credits	5

Brake Repairer- 4706043069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

AUT 110	Brake Systems	3
AUT 111	Brake Systems Lab	2
	Total Credits	5

Engine Repairer - 4706043089

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

ADX 150	Engine Repair	3
ADX 151	Engine Repairer.....	2
	Total Credits	5

Front End Mechanic - 4706043099

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

AUT 160	Suspension and Steering	3
AUT 161	Suspension and Steering Lab.....	2
	Total Credits	5

Tune-up Mechanic - 4706043109

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

ADX	120	Basic Automotive Electricity	3
ADX	121	Basic Automotive Electricity Lab.....	2
ADX	260	Electrical Systems	3
ADX	261	Electrical Systems Lab	2
AUT	140	Basic Fuel and Ignition Systems	3
AUT	141	Basic Fuel and Ignition Systems Lab	2
AUT	142	Emissions Systems	3
AUT	143	Emissions Systems Lab	2
AUT	240	Computer Control Systems and Diagnosis	3
AUT	241	Computer Control Systems and Diagnosis Lab.....	2
Total Credits			25

Hybrid and Electric Vehicle Technician – 4706043139

AUT	140	Basic Fuel and Ignition Systems	3
AUT	141	Basic Fuel and Ignition Systems Lab	2
AUT	142	Emissions Systems	3
AUT	143	Emissions Systems Lab	2
ADX	150	Engine Repair	3
ADX	151	Engine Repairer.....	2
ADX	120	Basic Automotive Electricity	3
ADX	121	Basic Automotive Electricity Lab.....	2
ADX	260	Electrical Systems	3
ADX	261	Electrical Systems Lab	2
ADX	275	Hybrid and Electric Vehicle Technology.....	3
ADX	276	Hybrid and Electric Vehicle Technology Lab	2
Total Credits			25

Aviation Maintenance Technology

Expertise in the inspection, repair, service and overhaul of aircraft and engines is the goal of this program certified by the Federal Aviation Agency (FAA). Interpreting specifications from service and technical manuals, using testing procedures and equipment, diagnosing problems and making necessary repairs are the skills taught in aircraft maintenance. To work in the aircraft industry, the FAA must certify students completing this program.

Students enrolled in the Aviation Maintenance Technology program must achieve a minimum grade of “C” in each FAA accredited course.

Note: Hours Exception (75-76 for the A.A.S. and 66-67 for the diploma) approved by the KCTCS Board of Regents in June 2011.

Associate in Applied Science

Aviation Maintenance Technology – 4706087029

(Offered at JFC, SMC)

General Education:

ENG	101	Writing I	3
		Quantitative Reasoning	3
		Natural Sciences	3
		Heritage/Humanities	3
		Social/Behavioral Sciences	3
Subtotal			15
ATE	100	Aviation Math	1
ATE	102	Introduction to Aviation Maintenance Technology I	3
ATE	104	Introduction to Aviation Maintenance Technology II	3
ATE	106	Introduction to Aviation Maintenance Technology III.....	3
ATE	108	Introduction to Aviation Maintenance Technology IV	3
ATE	202	Aircraft Structures I.....	3
ATE	204	Aircraft Structures II	3
ATE	206	Aircraft Structures III	3
ATE	208	Aircraft Structures IV	3
ATE	222	Aircraft Systems I.....	3

ATE	224	Aircraft Systems II	3
ATE	226	Aircraft Systems III	3
ATE	228	Aircraft Systems IV	3
ATE	242	Aircraft Powerplants I.....	3
ATE	244	Aircraft Powerplants II.....	3
ATE	246	Aircraft Powerplants III.....	3
ATE	248	Aircraft Powerplants IV	3
ATE	252	Aircraft Powerplant Systems I	3
ATE	254	Aircraft Powerplant Systems II	3
ATE	256	Aircraft Powerplant Systems III	3
ATE	258	Aircraft Powerplant Systems IV	3
Total Credits			76

NOTE: Computer/digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Diploma

Airframe and Power Plant Maintenance Technician - 4706084049

(Offered at JFC, SMC)

General Education: 6 credit hour requirement for diploma

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
Subtotal		6

ATE	100	Aviation Math	1
ATE	102	Introduction to Aviation Maintenance Technology I	3
ATE	104	Introduction to Aviation Maintenance Technology II	3
ATE	106	Introduction to Aviation Maintenance Technology III.....	3
ATE	108	Introduction to Aviation Maintenance Technology IV	3
ATE	202	Aircraft Structures I.....	3
ATE	204	Aircraft Structures II	3
ATE	206	Aircraft Structures III	3
ATE	208	Aircraft Structures IV	3
ATE	222	Aircraft Systems I.....	3
ATE	224	Aircraft Systems II	3
ATE	226	Aircraft Systems III	3
ATE	228	Aircraft Systems IV	3
ATE	242	Aircraft Powerplants I.....	3
ATE	244	Aircraft Powerplants II.....	3
ATE	246	Aircraft Powerplants III.....	3
ATE	248	Aircraft Powerplants IV	3
ATE	252	Aircraft Powerplant Systems I	3
ATE	254	Aircraft Powerplant Systems II	3
ATE	256	Aircraft Powerplant Systems III	3
ATE	258	Aircraft Powerplant Systems IV	3
Total Credits			67

NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Certificates

Airframe Maintenance Technician - 4706083069

(Offered at JFC, SMC)

ATE	100	Aviation Math	1
ATE	102	Introduction to Aviation Maintenance Technology I	3
ATE	104	Introduction to Aviation Maintenance Technology II	3
ATE	106	Introduction to Aviation Maintenance Technology III.....	3
ATE	108	Introduction to Aviation Maintenance Technology IV	3
ATE	202	Aircraft Structures I.....	3
ATE	204	Aircraft Structures II	3
ATE	206	Aircraft Structures III	3
ATE	208	Aircraft Structures IV	3
ATE	222	Aircraft Systems I.....	3
ATE	224	Aircraft Systems II	3
ATE	226	Aircraft Systems III	3
ATE	228	Aircraft Systems IV	3
Total Credits			37

Introduction to Aviation Electronics – 4706083099

(Offered at JFC, SMC)

ATE	292	Aviation Electronics	3
ATE	293	GROL+Radar Exam Prep	3
Total Credits			6

Power Plant Maintenance Technician - 4706083079

(Offered at JFC, SMC)

ATE	100	Aviation Math	1
ATE	102	Introduction to Aviation Maintenance Technology I	3
ATE	104	Introduction to Aviation Maintenance Technology II	3
ATE	106	Introduction to Aviation Maintenance Technology III	3
ATE	108	Introduction to Aviation Maintenance Technology IV	3
ATE	242	Aircraft Powerplants I	3
ATE	244	Aircraft Powerplants II	3
ATE	246	Aircraft Powerplants III	3
ATE	248	Aircraft Powerplants IV	3
ATE	252	Aircraft Powerplant Systems I	3
ATE	254	Aircraft Powerplant Systems II	3
ATE	256	Aircraft Powerplant Systems III	3
ATE	258	Aircraft Powerplant Systems IV	3
Total Credits			37

Biomedical Technology Systems

The Biomedical Technology Systems (BTS) program prepares the adult learner to repair, maintain, and manage a wide variety of medical devices, equipment, and systems employed in various healthcare sectors. The learner will gain a holistic perspective of the life-cycle duties and skills needed to assure that medical devices meet safety and performance expectations. The program addresses both general and specialized medical technologies along with how these technologies are interfaced with health IT networks. Upon completion of the program, the graduate will be prepared for immediate employment as an entry-level biomedical equipment technician professional and may pursue employment with a number of employers including, but not limited to: hospitals, clinics, home health equipment companies, third-party medical equipment service providers, and medical equipment manufacturers.

Associate in Applied Science

Biomedical Technology Systems– 1504017029

(Offered at MDC)

General Education Courses

ENG	101	Writing I	3
MAT	126	Technical Algebra and Trigonometry OR	3
MAT	150	College Algebra	(3)
PHY	171	Applied Physics	4
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
Subtotal			16

Technical Support Courses

AIT	1001	Basic Electrical Knowledge	2
AIT	1101	Electrical Power Distribution	1
BIO	135	Basic Anatomy and Physiology with Laboratory	4
CIT	105	Introduction to Computing (fulfills digital literacy requirement)	3
CIT	111	Computer Hardware and Software	4
CIT	160	Introduction to Networking Concepts	4
CIT	180	Security Fundamentals	3
Subtotal			21

Technical Courses

BTS	100	Biomedical Technology Systems: A Career Perspective	1
BTS	110	Environmental Risks and Precautionary Measures for the BTS Professional	1
BTS	120	Essentials of Biomedical Electronics I	2
BTS	125	Essentials of Biomedical Electronics II	2
BTS	130	Medical Equipment Management I	2
BTS	140	Science Principles Employed in Medical Technologies	1
BTS	200	Patient Care Support and Management Systems	2
BTS	210	Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities	2
BTS	220	Laboratory Devices, Instruments, and Analyzers	2
BTS	230	Medical Equipment Management II	2
BTS	250	Introduction to Medical-Based IT Networks and Standards	2
BTS	260	Radiographic Imaging Modalities	2
BTS	270	Therapeutic Equipment Modalities I	2
BTS	275	Therapeutic Equipment Modalities II	2
BTS	280	General Care Monitoring and Instrumentation	2
BTS	285	Critical Care Monitoring and Instrumentation	2
BTS	290	Clinical Experience in Biomedical Technology Systems Professional	2
Subtotal			31
Total			68

Elective

BTS	299	Selected Topics of Investigation in Biomedical Technology Systems	(0.5-5.0)
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Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

CIT	105	Introduction to Computing (fulfills digital literacy requirement)	3
CIT	111	Computer Hardware and Software	4
CIT	160	Introduction to Networking Concepts	4
CIT	180	Security Fundamentals	3
BTS	250	Introduction to Medical-Based IT Networks and Standards	2
Subtotal			16

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, research and development, and regulatory bioscience. The program has been designed to develop skills in basic analysis of biological molecules (DNA and proteins), use of bioreactors, recombinant DNA technology, generation of cell cultures, immunological method applications, regulatory compliance (GMPs and GLPs), accurate documentation, and laboratory safety skills. Some courses are dual credit and college credit can be earned while students are enrolled in secondary school.

The Biotechnology Laboratory Assistant certificate provides basic training and personal support to prepare students for certificates and degrees in Biotechnology or entry level employment in bioscience laboratories. The program is intended for students with little or no background in science, although the program is open to all students. Students enroll in three integrated courses as a cohort, BTN 100, BTN 103, and BTN 104.

The Basic Biotechnician certificate introduces hands-on laboratory training needed for entry-level employment in a biotechnological laboratory.

The Advanced Biotechnician certificate provides practical laboratory skills to supplement theoretical knowledge gained from previous coursework, to improve employability in the biotechnology industry.

The Bioinformatics certificate introduces interdisciplinary curriculum to gain skills required to seek employment at an entry level in performing data acquisition, management, and analysis in laboratory environments. The certificate program can also benefit working professionals seeking to advance or change their careers. Students will learn basic programming, concepts of molecular biology, and use of bioinformatics applications and resources. Emphasis will be placed on the skills required to become creative and flexible team members and leaders who can work with others in the dynamic interdisciplinary team environment found in today's biotechnology companies. The Bioinformatics certificate is a joint credential within the Biotechnology Laboratory Technician and Computer Information Technologies areas.

The Environmental Biotechnician certificate provides hands-on training using an interdisciplinary approach of integrating applied biotechnology to study the natural environment. Green technologies, sustainability, biodegradation, and bioremediation will be explored. Students will collect water, air, and soil samples and conduct experiments related to the detection and monitoring of environmental pollutants. The use of biotechnology laboratory methods, system's biology, and bioinformatics will be emphasized. Students who complete the curriculum satisfactorily are qualified for entry level positions in laboratories or field research companies, including federal, state, or local agencies, university or privately owned biotechnology research labs, or nature resource management organizations. The Environmental Biotechnician Certificate requires successful completion of 21 hours of coursework, which may be earned in 2 semesters, provided all the prerequisites have been met for the required coursework. This is a joint certificate in the Biotechnology Laboratory Technician and Environmental Science Technician programs.

Associate in Applied Science

Biotechnology Laboratory Technician – 4101017029

(Offered at BLC)

Required General Education Courses

Heritage/Humanities	3
Social/ Behavioral Sciences	3
Natural Sciences with Laboratory ¹	4 – 5
Quantitative Reasoning ²	3
Written Communication	3
Subtotal: General Education Requirements	16-17

1 Science requirement may be satisfied by:

- One semester of college biology with lab, or
- One semester of college chemistry with lab, or
- Course approved by the program coordinator.

2 Assessment score above the KCTCS transitional course placement level or completion of transitional courses (courses numbered 001-099).

Required Technical Core Courses

BTN 101 Introduction to Biotechnology	1
BTN 105 Applied Biotechnology Laboratory Calculations	3
BTN 201 Biotechnology Techniques I	4
BTN 202 Biotechnology Techniques II	4
Digital Literacy ³	0-3
Subtotal: Technical Core Requirements	12-1

3 Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.

Required Technical Elective Courses

Choose at least 28 credit hours:

BTN 106	Fundamentals of Scientific Communication	3
BTN 110	Nucleic Acids	4
BTN 115	Biomufacturing	4
BTN 120	Biofuels	4
BTN 125	Bioinformatics I	2
BTN 126	Bioinformatics II	2
BTN 160	Introduction to Agricultural Biotechnology	4
BTN 210	Cell Culture and Function	4
BTN 220	Immunological Methods	4
BTN 225	Protein Bioseparation Methods	4
BTN 295	Independent Investigation in Biotechnology ⁴ OR	1-3
BTN 298	Biotechnology Learning Laboratory ⁴ OR	(1-8)
COE 199	Cooperative Education ⁴	(1-3)
	Or course approved by the program coordinator	
	Subtotal: Technical Elective Courses	28

4 Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

Technical Support Courses

Choose at least 4 credit hours within Natural Sciences and Mathematics, usually courses with prefixes ANA, BIO, BTN, CHE, EST, GLY, MA, MAT, PGY, PHY, STA or any course approved by the program coordinator. BTN courses not used to satisfy Technical Electives may be used to satisfy Technical Support.

Subtotal: Technical Support Courses	4
Total	60 - 64

Certificate

Biotechnology Laboratory Assistant - 4101013040

(Offered at BLC)

BTN 100	Contextual Science with Laboratory ⁵	4
BTN 103	Contextual Laboratory Language ⁵	3
BTN 104	Contextual Laboratory Calculations ⁵	3
BTN 101	Introduction to Biotechnology	1
BTN 106	Fundamentals of Scientific Communications	3
	Digital Literacy Course	3
	Total	17

5 BTN 100, BTN 103, and BTN 104 must be taken as a cohort.

Basic Biotechnician- 4101013020

(Offered at BLC)

BTN 101	Introduction to Biotechnology	1
BTN 105	Applied Biotechnology Laboratory Calculations	3
BTN 201	Biotechnology Techniques I	4
BTN 202	Biotechnology Techniques II	4
	Science ⁶	4-5
	Total	16-17

6 Science requirement may be satisfied by:

- Completion of the Biotechnology Laboratory Assistant Certificate, or
- Completion of BTN 100, BTN 103, and BTN 104 or cohort with a "C" or better, or
- One semester of college biology with lab, or
- One semester of college chemistry with lab, or
- Course approved by the program coordinator.

Advanced Biotechnician - 4101013050

(Offered at BLC)

BTN 101	Introduction to Biotechnology	1
BTN 105	Applied Biotechnology Laboratory Calculations	3
BTN 201	Biotechnology Techniques I	4
BTN 202	Biotechnology Techniques II	4

Choose 15 credits from the following:

BTN 106	Fundamentals of Scientific Communication.....	3
BTN 110	Nucleic Acids	4
BTN 115	Biomanufacturing	4
BTN 120	Biofuels	4
BTN 125	Bioinformatics I	2
BTN 126	Bioinformatics II	2
BTN 160	Introduction to Agricultural Biotechnology	4
BTN 210	Cell Culture and Function	4
BTN 220	Immunological Methods	4
BTN 225	Protein Bioseparation Methods.....	4
BTN 295	Independent Investigation in Biotechnology ⁷ OR	1-3
BTN 298	Biotechnology Learning Laboratory ⁷ OR.....	(1-8)
COE 199	Cooperative Education ⁷	(1-3)
	Or course approved by the program coordinator	(4-5)
	Total	27

⁷ Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

Prerequisites:

- At least one semester of college level chemistry and college level biology, with an earned associate’s degree or higher.
- Or consent of program coordinator

Bioinformatics– 4101013060

(Offered at BLC)

BTN 101	Introduction to Biotechnology	1
BTN 105	Applied Biotechnology Laboratory Calculations	3
BTN 125	Bioinformatics I	2
BTN 126	Bioinformatics II	2
BTN 201	Biotechnology Techniques I	4
BTN 202	Biotechnology Techniques II	4
CIT 149	Java I OR	3
CS 115	Introduction to Computer Programming OR	(3)
INF 120	Elementary Programming.....	(3)
CIT 170	Database Design Fundamentals OR	3
INF 282	Introduction to Databases	(3)
CIT 249	Java II OR	3
CS 215	Introduction to Program Design, Abstraction, and Problem Solving OR	(4)
INF 260	Object Oriented Programming I AND	(3)
INF 260L	Object Oriented Programming I Laboratory	(1)
CIT 155	Web Page Development OR.....	3
IMD 133	Beginning Web Design OR.....	(3)
INF 286	Introduction to Web Development	(3)
	Total	28-29

Environmental Biotechnician – 4101013070

(Offered at BLC)

BTN 101	Introduction to Biotechnology	1
BTN 201	Biotechnology Techniques I	4
BTN 202	Biotechnology Techniques II	4
CHE 170	General College Chemistry I	3
CHE 175	General College Chemistry Laboratory I.....	1
EST 150	Introductory Ecology	4
EST 170	Environmental Sampling Laboratory	2
EST 260	Environmental Methods and Analysis Lab	2
	Total	21

Broadband Technology

The Broadband Technology program provides training through three distinct tracks –Broadband Technician, Broadband Telecommunications Equipment Installer Track, and Broadband Design and Applications Track. The program includes instruction in telecommunications, outside plant operations, computer networking, communications networks and systems, signals, circuits, fiber optics, and wireless systems and technology.

Progression in the Broadband Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Broadband Technician Track

The track provides course work, competencies and experiences to prepare the students for success as Broadband Technicians. Areas of study as related to this track include HFC (Hybrid Fiber Cable), Fiber Optics Systems, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety, and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

Broadband Telecommunications Equipment Installer Track

This track provides course work, competencies and experiences to prepare the students for success as Broadband Telecommunications Equipment Installers. Areas of study as related to this track include Computer Hardware and Software, Introduction to GIS (Graphical Information Systems), Functions and Operation of PBX Systems, Fiber Optics Systems Splicing and Maintenance, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety.

Broadband Design and Applications Track

The track provides course work, competencies and experiences to prepare the students for success in Broadband Design and Applications. Areas of study as related to this track include GIS (Graphical Information Systems), Security Systems and Regulations, HFC (Hybrid Fiber Cable), Satellite Dishes, Fiber Optics Systems, NEC (National Electrical Code) outlining the standards for proper installation of communication cables and systems according to the NFPA70 (National Fire Protection Association), and Electrical Construction (specifically Fiber Optic and Data Cable Installations).

Broadband Basic Installer

The Broadband Basic Installer certificate provides an overview of concepts needed to complete the duties of a broadband technician relating to telecommunications service and installation. The certificate also provides the foundational basic skills and knowledge required to effectively perform the installation and maintenance job duties and functions. Students are introduced to HFC Cables and fiber optic transmissions and cable repair.

Broadband Support Technician

The Broadband Support Technician certificate provides training on first level support via telephone or field service to minimize interruptions in inside wire for residential/business broadband (DSL/Video) service, Central Office junctions as required for broadband continuity, digital subscriber carriers and associated broadband equipment, Residential Gateways and DSL business class routers, along with the array of wireless home networking equipment. The certificate prepares technicians to follow documented call handling procedures to manage inbound contacts and document relevant information in a Service Management tool, while providing excellent customer service and technical support services.

Broadband Telecommunications Equipment Installer

The Broadband Telecommunications Equipment Installer certificate introduces the set-up, installation, rearrangement, and/or removing switching and dialing equipment used in telecommunications central offices and end user broadband consumers. Training also includes an introduction to routing broadband information to destination and troubleshooting central problems at the end user customer premises.

Broadband Cyber Security Technician

The Broadband Cyber Security Technician certificate introduces the setup, configuration, and support of internal and/or external networks. Training includes the development and maintenance of all systems, applications, security, and network configurations. Also included are troubleshooting network performance issues and creating and maintaining a disaster recovery plan. The certificate prepares the technician to recommend upgrades, patches, and new applications and equipment and to provide technical support and guidance to users.

Broadband Technician Specialist

The Broadband Specialists I (Field Technicians) certificate primarily focus on new installations of cable television and broadband services. Students learn a variety of duties including installation, changes of service, additional outlet installation, disconnection of service, payment collection, and any special requests customers may have in regard to installation.

Associate in Applied Science

Broadband Technology – 4701037019

(Offered at BSC)

General Education:

MAT	150	College Algebra OR.....	3
MAT	126	Technical Algebra and Trigonometry	(3)
PHY	171	Applied Physics OR	4
		Other Natural Science with Consent of Program Coordinator.....	(3)
ENG	101	Writing I	3
		Social/Behavioral Science Course	3
		Oral Communications Course	3
		Heritage/Humanities	3
		General Education Credit Hours	18-19

Technical Core

ELT	110	Circuits I	5
ELT	120	Digital I.....	3
BBT	289	Broadband Technology Capstone.....	1
CIT	105	Introduction to Computers OR.....	3
		Digital Literacy course	(3)
CIT	111	Computer Hardware and Software	4
CIT	161	Introduction to Networks.....	4
ISX	100	Industrial Safety.....	3
BBT	100	Introduction to HFC Cable TV	3
BBT	200	Introduction to Cellular Technology.....	2
		Subtotal	28

Broadband Technician Track - 470103701

(Offered at BSC)

EET	110	Voice & Data Installer Level I.....	4
ETT	116	Fiber Optic Systems.....	3
ELT	224	Basic Telecommunications Installation and Maintenance	3
ELT	222	Mechanics of Telephony.....	3
EET	154	Electrical Construction I	2
EET	155	Electrical Construction I Lab	2
EET	252	Electrical Construction II	2
EET	253	Electrical Construction II Lab	2
		Track Subtotal	21

Total Credit Hours

67-68

Broadband Telecommunications Equipment Installer Track - 470103702

(Offered at BSC)

CIT	125	Introduction to GIS	3
BBT	220	PBX Installations.....	2
BBT	201	Advanced Cellular Technology	2
ELT	224	Basic Telecommunications Installation and Maintenance	3

ETT	110	Voice & Data Installer Level I.....	4
ETT	116	Fiber Optics Systems.....	3
		Track Subtotal	17

Total Credit Hours

63-64

Broadband Design and Applications Track - 470103703

(Offered at BSC)

CIT	125	Introduction to GIS	3
BBT	210	Security Systems Applications	3
BBT	101	HFC Cable-TV Operations	3
EET	154	Electrical Construction I	2
EET	155	Electrical Construction I Lab	2
EET	252	Electrical Construction II	2
EET	253	Electrical Construction II Lab	2
EET	250	National Electrical Code	4
		Track Subtotal	21

Total Credit Hours

67-68

Certificates

Broadband Basic Installer – 4701033050

(Offered at BSC, HZC, SEC)

ELT	110	Circuits I	5
BBT	100	Introduction to HFC Cable-TV	3
BBT	200	Introduction to Cellular Technology.....	2
ELT	224	Basic Telecommunications Installation and Maintenance	3
		Total	13

Broadband Support Technician – 4701033060

(Offered at BSC, HZC, SEC)

ELT	110	Circuits I	5
ELT	120	Digital I.....	3
CIT	105	Introduction to Computers OR.....	3
		Digital Literacy Course.....	(3)
CIT	111	Computer Hardware and Software	4
CIT	161	Introduction to Networks	4
ISX	100	Industrial Safety.....	3
BBT	100	Introduction to HFC Cable-TV	3
BBT	200	Introduction to Cellular Technology.....	2
		Total	27

Broadband Technician Specialist – 4701033070

(Offered at BSC, HZC, SEC)

BBT	100	Introduction to HFC Cable-TV	3
BBT	200	Introduction to Cellular Technology.....	2
ETT	110	Voice & Data Installer Level I.....	4
ETT	116	Fiber Optic Systems.....	3
ELT	224	Basic Telecommunications Installation and Maintenance	3
ELT	222	Mechanics of Telephony.....	3
EET	154	Electrical Construction I	2
EET	155	Electrical Construction I Laboratory.....	2
EET	252	Electrical Construction II	2
EET	253	Electrical Construction II Laboratory	2
		Total	26

Broadband Telecommunications Equipment Installer – 4701033080

(Offered at HZC, SEC)

CIT	105	Introduction to Computers OR.....	3
		Digital Literacy Course.....	(3)
CIT	111	Computer Hardware and Software	4
BBT	220	PBX Installations	2
BBT	200	Introduction to Cellular Technology.....	2
EET	110	Voice & Data Installer Level I.....	4
ETT	116	Fiber Optics Systems.....	3
CIT	161	Introduction to Networks	4
		Technical Elective Approved by Program Coordinator.....	1-3
		Total	23-25

Broadband Cyber Security Technician – 4701033090

(Offered at BSC, HZC, SEC)

BBT	210	Security Systems Applications	3
EET	110	Voice & Data Installer Level I.....	4
CIT	105	Introduction to Computers OR.....	3
		Digital Literacy Course.....	(3)
CIT	111	Computer Hardware and Software	4
CIT	161	Introduction to Networks.....	4
CIT	180	Security Fundamentals.....	3
CIT	184	Attacks and Exploits	3
CRJ	220	Introduction to Computer Forensics for Criminal Justice.....	3
		Total	27

Building Controls Technician

The Building Controls Technician Certificate is designed to prepare graduates for a career in the building controls field. The curriculum provides a background in electricity and HVAC technologies, and a hands-on experience in networked building control systems. Graduates will have an understanding of the importance of optimizing and maintaining building control systems in relation to sustainability and economic benefit.

Building Controls Technician – 4604013099

ACR	100	Refrigeration Fundamentals	3
ACR	101	Refrigeration Fundamentals Lab	2
ACR	102	HVAC Electricity	3
ACR	103	HVAC Electricity Lab.....	2
CRA	230	Building Controls I	5
CRA	232	Building Controls II	5
		Technical Electives.....	10
		Total	30

Technical Electives (Must complete 10 credit hours from the list below.)

ACR	206	Boilers	5
ACR	207	Commercial HVAC Systems	5
ACR	208	Chillers	4
		Other Technical Electives approved by the Program	
		Coordinator	3-10

Business Studies

Four programs are offered under the broader heading of Business Studies. They are Administrative Office Technology, Business Administration Systems, Medical Information Technology, and Supply Chain Management.

Administrative Office Technology

The Administrative Office Technology program is an integrated curriculum, which prepares graduates at the certificate, diploma, and associate degree level. The Administrative Office Technology program prepares students to work in an office environment of people, process, and technologies. Job titles may include Administrative Assistant, Office Assistant, Office Manager, and Financial Assistant. These personnel use a variety of office technology and computer-based applications (word processing, electronic mail, desktop publishing, graphics, database, and spreadsheet). They support and help facilitate accurate communication and information exchange to internal and external customers on a timely basis. Technical courses combined with general education courses prepare students for today's workforce and provide a basis for lifelong learning, a neces-

sity for the workforce of the future. Students select an area of specialty from the following tracks: financial assistant, administrative, desktop publishing, and legal. Program graduates are employed in professional office, education, government, businesses, and industries. Graduates may choose to sit for the Certified Professional Secretary Examination or Certified Administrative Professional Examination or Microsoft Office Specialists Certifications.

Progression in the Administrative Office Technology program is contingent upon achievement of a grade of "C" or better in all OST courses.

Associate in Applied Science

Administrative Office Technology – 5204027039

(Offered at BLC, ELC, JFC, HPC, MYC, OWC)

General Education:

ENG	101	Writing I	3
MAT	105	Business Mathematics OR.....	3
MAT	110	Applied Mathematics OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Heritage/Humanities	3
		Oral Communications Course	3
		Natural Sciences Course.....	3-4
		Social/Behavioral Sciences Course***.....	3
		General Education Credit Hours	18-19

Technical Core

OST	105	Introduction to Information Systems.....	3
OST	215	Office Procedures	3
OST	110	Document Formatting and Word Processing.....	3
OST	160	Records and Database Management	3
OST	210	Advanced Word Processing Application.....	3
OST	240	Software Integration	3
OST	235	Business Communications Technology	3
OST	275	Office Management	3

Technical Core Credit Hours

24

***Association of Collegiate Business Schools and Programs (ACBSP) accredited colleges must require Economics.

Administrative Track - 520402701

(Offered at BLC, ELC, HPC, JFC, MYC, OWC)

Available Completely Online

ACT	101	Fundamentals of Accounting I OR.....	3
		Higher Level Accounting Course	(3)
OST	220	Administrative Office Simulation	3
OST	225	Introduction to Desktop Publishing	3
OST	295	Administrative Office Technology Internship OR.....	3
COE	199	Cooperative Education	(3)

Choose two courses (6 credit hours) from the following list:

BAS	160	Introduction to Business	3
ENG	102	Writing II	3
BAS	120	Personal Finance	3
OST	255	Introduction to Business Graphics	3
OST	150	Transcription and Office Technology	3
OST	108	Editing Skills for the Office Professional	3
OST	272	Presentation Graphics.....	3
OST	250	Advanced Desktop Publishing	3
		Elective course approved by Program Coordinator.....	3
		Total Administrative Track Credit Hour	18

Total Credit Hours OST AAS

Administrative Track

60-61

Desktop Publishing Track - 520402704

(Offered at BLC)

Available Completely Online

OST	130	Typography	3
OST	215	Office Procedures	3
OST	225	Introduction to Desktop Publishing	3
OST	250	Advanced Desktop Publishing	3
OST	255	Introduction to Business Graphics	3
OST	272	Presentation Graphics	3
OST	220	Administrative Office Simulation OR	3
OST	295	Administrative Office Technology Internship OR	(3)
COE	199	Cooperative Education	(2-3)
Total Desktop Publishing Track Credit Hours			20-21

Total Credit Hours OST AAS

Desktop Publishing Track 62-64

Financial Assistant Track - 520402703

(Offered at BLC)

Available Completely Online

ACT	101	Fundamentals of Accounting I OR	3
		Higher Level Accounting Course	(3)
ACT	102	Fundamentals of Accounting II OR	3
		Higher Level Accounting Course	(3)
ACT	279	Computerized Accounting Systems	3
OST	295	Administrative Office Technology Internship OR	3
COE	199	Cooperative Education	(3)

Choose two courses (6 hours) from the following list:

OST	112	Financial Management	3
BAS	160	Introduction to Business	3
OST	225	Introduction to Desktop Publishing	3
BAS	120	Personal Finance	3
OST	213	Business Calculations for the Office Professional	3
OST	272	Presentation Graphics	3
ENG	102	Writing II	3
Total Financial Assistant Track Credit Hours			18

Total Credit Hours OST AAS

Financial Assistant Track 60-61

Legal Administrative Track - 520402705

(Offered at BLC)

ACT	101	Fundamentals of Accounting I OR	3
		Higher Level Accounting	(3)
		Additional Accounting (ACC or ACT) course	3
BAS	267	Introduction to Business Law	3
OST	109	Legal Terminology	3
OST	221	Legal Office Simulations	3
MIT	103	Medical Office Terminology OR	3
CLA	131	Medical Terminology from Greek and Latin OR	(3)
AHS	115	Medical Terminology	(3)

Total Legal Administrative Assistant Track Credit Hours 18

Total Credit Hours OST AAS

Legal Administrative Track 60-61

Diplomas

Administrative Assistant - 5204024019

(Offered at BLC, BSC, ELC, JFC, MYC)

Available Completely Online

General Education

OST	108	Editing Skills for the Office Professional OR	3
ENG	101	Writing I	(3)
OST	213	Business Calculations for the Office Professional OR	3
MAT	105	Business Mathematics OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
Total General Education			6

Technical Courses

OST	105	Introduction to Information Systems	3
ACT	101	Fundamentals of Accounting I OR	3
		Higher Level Accounting Course	(3)
OST	110	Document Formatting and Word Processing	3
OST	160	Records and Database Management	3
OST	210	Advanced Word Processing Applications	3
OST	215	Office Procedures	3
OST	225	Introduction to Desktop Publishing	3
OST	235	Business Communications Technology	3
OST	240	Software Integration	3
OST	295	Administrative Office Technology Internship OR	3
COE	199	Cooperative Education	(3)

Choose two courses (6 hours) from the following list:

BAS	160	Introduction to Business	3
ENG	102	Writing II	3
BAS	120	Personal Finance	3
OST	255	Introduction to Business Graphics	3
OST	150	Transcription and Office Technology	3
OST	108	Editing Skills for the Office Professional	3
OST	272	Presentation Graphics	3
OST	250	Advanced Desktop Publishing	3

Total Technical Hours 35-36

Total Credit Hours 41-42

Desktop Publishing Specialist - 5204024029

(Offered at BLC)

Available Completely Online

General Education

OST	108	Editing Skills for the Office Professional OR	3
ENG	101	Writing I	(3)
OST	213	Business Calculations for the Office Professional OR	3
MAT	105	Business Mathematics OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
Total General Education			6

Technical Courses

OST	105	Introduction to Information Systems	3
OST	110	Document Formatting and Word Processing	3
OST	130	Typography	3
OST	160	Records and Database Management	3
OST	210	Advanced Word Processing Applications	3
OST	215	Office Procedures	3
OST	225	Introduction to Desktop Publishing	3
OST	235	Business Communication Technology	3
OST	240	Software Integration	3
OST	250	Advanced Desktop Publishing	3
OST	255	Introduction to Business Graphics	3
OST	272	Presentation Graphics	3
OST	220	Administrative Office Simulation OR	3
OST	295	Administrative Office Technology Internship OR	(3)
COE	199	Cooperative Education	(2-3)

Total Technical Hours 38-39

Total Credit Hours 44-45

Financial Assistant - 5204024049

(Offered at BLC, BSC, ELC, JFC)

Available Completely Online

General Education

OST	108	Editing Skills for the Office Professional OR	3
ENG	101	Writing I	(3)
OST	213	Business Calculations for the Office Professional OR	3
MAT	105	Business Mathematics OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
Total General Education			6

Technical Courses

OST	105	Introduction to Information Systems.....	3
ACT	101	Fundamentals of Accounting I OR.....	3
		Higher Level Accounting Course	(3)
ACT	102	Fundamentals of Accounting II OR.....	3
		Higher Level Accounting Course	(3)
ACT	279	Computerized Accounting Systems.....	3
OST	110	Document Formatting and Word Processing.....	3
OST	160	Records and Database Management	3
OST	215	Office Procedures	3
OST	240	Software Integration	3
OST	295	Administrative Office Technology Internship OR.....	3
COE	199	Cooperative Education	(2-3)

Choose two courses (6 hours) from the following list:

BAS	160	Introduction to Business.....	3
ENG	102	Writing II	3
BAS	120	Personal Finance	3
OST	255	Introduction to Business Graphics	3
OST	150	Transcription and Office Technology	3
OST	108	Editing Skills for the Office Professional	3
OST	272	Presentation Graphics.....	3
OST	250	Advanced Desktop Publishing	3

Total Technical Hours 32-33
Total Credit Hours 38-39

Legal Office Assistant - 5204024059

(Offered at BLC)

General Education

OST	108	Editing Skills for the Office Professional OR.....	3
ENG	101	Writing I	(3)
OST	213	Business Calculations for the Office Professional OR	3
		Higher Level Quantitative Reasoning Course	(3)

Total General Education 6

Technical Courses

OST	105	Introduction to Information Systems.....	3
ACT	101	Fundamentals of Accounting I OR.....	3
		Higher Level of Accounting Course	(3)
BAS	267	Introduction to Business Law	3
OST	109	Legal Terminology	3
OST	221	Legal Office Simulations.....	3
OST	215	Office Procedures	3
OST	110	Document Formatting and Word Processing.....	3
OST	160	Records and Database Management	3
OST	235	Business Communications Technology	3
OST	240	Software Integration	3
OST	295	Administrative Office Technology Internship OR.....	3
COE	199	Cooperative Education	(3)

Choose one course (3 hours) from the following:

BAS	160	Introduction to Business.....	3
ENG	102	Writing II	3
BAS	120	Personal Finance	3
OST	255	Introduction to Business Graphics	3
OST	150	Transcription and Office Technology	3
OST	108	Editing Skills for the Office Professional	3
OST	272	Presentation Graphics.....	3
OST	250	Advanced Desktop Publishing	3

Total Technical Hours 36
Total Credit Hours 42

Office Assistant - 5204024039

*(Offered at BLC, BSC, ELC, JFC, MYC)
 Available Completely Online*

General Education

OST	108	Editing Skills for the Office Professional- OR.....	3
ENG	101	Writing I	(3)

OST	213	Business Calculations for the Office Professional OR	3
MAT	105	Business Mathematics OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)

Total General Education 6

Technical Courses

OST	105	Introduction to Information Systems.....	3
OST	110	Document Formatting and Word Processing.....	3
OST	160	Records and Database Management	3
OST	210	Advanced Word Processing Applications.....	3
OST	215	Office Procedures	3
OST	235	Business Communications Technology	3
OST	240	Software Integration	3
OST	295	Administrative Office Technology Internship OR.....	3
COE	199	Cooperative Education	(3)

Choose two courses (6 hours) from the following list:

BAS	160	Introduction to Business.....	3
ENG	102	Writing II	3
BAS	120	Personal Finance	3
OST	255	Introduction to Business Graphics	3
OST	150	Transcription and Office Technology	3
OST	108	Editing Skills for the Office Professional	3
OST	272	Presentation Graphics.....	3
OST	250	Advanced Desktop Publishing	3

Total Technical Hours 30
Total Credit Hours 36

Certificates

Administrative - 5204023039

*(Offered at BLC, BSC, HPC, JFC, MYC, OWC)
 Available Completely Online*

OST	108	Editing Skills for the Office Professional OR.....	3
ENG	101	Writing I	(3)
OST	105	Introduction to Information Systems.....	3
OST	213	Business Calculations for the Office Professional OR	3
MAT	105	Business Mathematics OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)
OST	110	Document Formatting and Word Processing.....	3
OST	215	Office Procedures	3
OST	240	Software Integration	3
OST	235	Business Communications Technology	3
OST	160	Records and Database Management	3
ACT	101	Fundamental of Accounting I OR.....	3
		Higher level Accounting Course	(3)
OST	150	Transcription and Office Technology	3

Total Credit Hours 30

Basic Business Presentation - 5204023119

(Offered at BLC)

Available Completely Online

OST	105	Introduction to Information Systems.....	3
OST	108	Editing Skills for the Office Professional OR.....	3
ENG	101	Writing I	(3)
OST	225	Introduction to Desktop Publishing	3
OST	255	Introduction to Business Graphics	3
OST	272	Presentation Graphics.....	3

Total Credit Hours 15

Data Entry Operator - 5204023079

*(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, WKC)
 Available Completely Online*

OST	105	Introduction to Information Systems.....	3
OST	110	Document Formatting and Word Processing.....	3

Total Credit Hours 6

Desktop Publishing - 5204023099

(Offered at BLC, BSC)

Available Completely Online

ENG 101	Writing I OR.....	3
OST 108	Editing Skills for the Office Professional	(3)
OST 213	Business Calculations for the Office Professional OR	3
MAT 105	Business Mathematics OR.....	(3)
	Higher Level Quantitative Reasoning Course	(3)
OST 105	Introduction to Information Systems.....	3
OST 110	Document Formatting and Word Processing.....	3
OST 130	Typography	3
OST 160	Records and Database Management	3
OST 225	Introduction to Desktop Publishing	3
OST 255	Introduction to Business Graphics	3
OST 272	Presentation Graphics.....	3
	Total Credit Hours	27

Financial Assistant Clerk - 5204023129

(Offered at BLC, BSC, HPC, JFC, OWC)

Available Completely Online

OST 105	Introduction to Information Systems.....	3
ACT 101	Fundamentals of Accounting I OR.....	3
	Higher Level Accounting Course	(3)
OST 108	Editing Skills for the Office Professional OR	3
ENG 101	Writing I	(3)
OST 110	Document Formatting and Word Processing.....	3
OST 160	Records and Database Management	3
OST 213	Business Calculations for the Office Professional OR	3
MAT 105	Business Mathematics OR.....	(3)
	Higher Level Quantitative Reasoning Course	(3)
	Total Credit Hours	18

Financial Assistant Trainee - 5204023139

(Offered at BLC, BSC, HPC, JFC, OWC)

Available Completely Online

OST 105	Introduction to Information Systems.....	3
ACT 101	Fundamentals of Accounting I OR.....	3
	Higher Level Accounting Course	(3)
OST 110	Document Formatting and Word Processing.....	3
OST 213	Business Calculations for the Office Professional OR	3
MAT 105	Business Mathematics OR.....	(3)
	Higher Level Quantitative Reasoning Course	(3)
	Total Credit Hours	12

Financial Record Keeper - 5204023069

(Offered at BLC, BSC, JFC, OWC)

Available Completely Online

OST 105	Introduction to Information Systems.....	3
ACT 101	Fundamentals of Accounting I OR.....	3
	Higher Level Accounting Course	(3)
	Higher Level Accounting Course	3
OST 108	Editing Skills for the Office Professional OR	3
ENG 101	Writing I	(3)
OST 110	Document Formatting and Word Processing.....	3
OST 112	Financial Management OR.....	3
	Course Approved by Program Coordinator	(3)
OST 160	Records and Database Management	3
OST 213	Business Calculations for the Office Professional OR	3
MAT 105	Business Mathematics OR.....	(3)
	Higher Level Quantitative Reasoning Course	(3)
OST 215	Office Procedures	3
OST 240	Software Integration	3
	Total Credit Hours	30

Integrated Office Skills - 5204023059

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, WKC)

OST 108	Editing Skills for the Office Professional OR	3
ENG 101	Writing I	(3)
OST 105	Introduction to Information Systems.....	3
OST 110	Document Formatting and Word Processing.....	3
OST 160	Records and Database Management O.....	3
OST 210	Advanced Word Processing Applications.....	3
OST 215	Office Procedures	3
OST 240	Software Integration	3
	Total Credit Hours	21

Legal Receptionist - 5204023149

(Offered at BLC)

OST 105	Introduction to Information Systems.....	3
OST 108	Editing Skills for the Office Professional OR	3
ENG 101	Writing I	(3)
OST 110	Document Formatting and Word Processing.....	3
OST 160	Records and Database Management	3
OST 109	Legal Terminology	3
	Total Credit Hours	15

Receptionist - 5204023089

(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, WKC)

Available Completely Online

OST 105	Introduction to Information Systems.....	3
OST 108	Editing Skills for the Office Professional OR	3
ENG 101	Writing I	(3)
OST 160	Records and Database Management	3
OST 110	Document Formatting and Word Processing.....	3
	Total Credit Hours	12

Business Administration Systems

The Business Administration Systems Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Systems Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial Supervisor, Informatics, Leadership, Management, Office Systems, Operations Management, Real Estate Management, Sales, Small Business Management, and Team Leadership.

The curriculum is designed for those who seek entry level jobs as well as for currently employed individuals wishing to enhance their skills. A student specializes by choosing from the following Tracks, Diplomas and Certificates:

The Accounting Track / Diploma / Certificate leads to careers in accounting including bookkeeper, accounting clerk, cost payroll clerk and positions using microcomputer-based systems.

The Business Management Track leads to careers for planning and managing people and other resources within organizations.

The Equine Business Management Track / Certificate provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry.

The Hospitality Management Track / Certificate prepares students for careers directing specific aspects of hospitality operations and for overall hospitality management.

The Human Resource Management Track / Certificate prepares students for entry-level positions in the human resource field and related occupations.

The Informatics Track / Diploma/ Certificate prepares students for careers in business including Business Analysts and positions that query and report on the business's key performance indicators and success factors.

The Management Track / Certificate prepares the student with broad-based management knowledge and skills which lead to a variety of positions in organizations.

The Marketing and Retailing Track prepares for careers in sales, merchandise management, buying, department supervising, or retail management.

The Office Systems Track / Diploma / Certificate prepares the student with a broad base of knowledge and skills needed for a variety of positions in an office.

The Real Estate Management Track / Certificate leads to a career in real estate which may include sales, finance, counseling, development, marketing analysis, valuation, and/or property management.

The Organizational Leadership Diploma curriculum is designed to prepare students to manage a department or to become team leaders in team-based or self-managed organizations.

The Small Business Management Diploma / Certificate curricula is designed to prepare students for the position of entrepreneur and business owner and offers the prospective business owner the fundamentals of starting and operating a business.

The Accounting Recordkeeping Specialist Certificate prepares students for entry level employment as a bookkeeper.

The Advanced Business Administration Certificate is designed to be a building block to complete the Associate in Applied Science Degree, Business Administration Core courses.

The Business Certificate prepares the student for positions in supervision, management and general business.

The Business Transfer Certificate is designed to provide the business transfer student an exit point by offering business preparation courses that will transfer to a four-year institution.

The Entrepreneurship Certificate is focused on providing foundational business knowledge necessary to turn a project, idea, product or service into a business venture. Certificate graduates will learn how to prepare a business plan, identify sources of venture and operating capital, gain product development knowledge, learn methods of marketing their idea or business, learn how to read and understand financial statements, and gain personal and organization leadership qualities that will provide business tools to new or current entrepreneurs.

The Financial Perspectives Certificate prepares the student for entry-level positions in accounting, financial services and small business management.

The Industrial Supervisor certificate prepares the student in the field of industrial front-line supervision.

The Leadership Certificate enables the student to qualify for leadership positions, work effectively in teams, lead problem solving work groups, understand the conflict resolution processes and plan effectively.

The Operations Management Certificate provides students with the knowledge and skills needed to effectively function as first-line supervisors in an operations environment whether in distribution, services, or manufacturing. It will also increase the understanding of the operations function for non-operations students who will be working in a distribution, services or manufacturing organization.

The Payroll Accounting Specialist Certificate prepares the student for entry level work in payroll processing.

The Sales Certificate prepares the student for a career in sales.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

The Team Leadership Certificate prepares the student for a career in team leadership, supervision and / or management in a variety of different organizations. Modules are available.

The Supervisory Management Certificate prepares the student in the field of front-line supervision.

Associate in Applied Science

Business Administration Systems - 5202017129

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

ENG	101	Writing I	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communication	(3)
ECO		Any Economics Course	3
MAT	105	Business Mathematics OR	3
MAT	110	Applied Mathematics OR	(3)
MAT	150	College Algebra OR Higher Quantitative Reasoning	(3)
		Heritage/Humanities	3
		Natural Sciences	3
		Subtotal	18

Technical Courses:

CIT	105	Introduction to Computers OR	3
OST	105	Introduction to Information Systems	(3)
ENG	102	Writing II OR	3
OST	235	Business Communications Technology	(3)
CIT	130	Productivity Software OR	3
OST	240	Software Integration	(3)
BAS	160	Introduction to Business	3
BAS	250	Business Employability Seminar	1
BAS	267	Introduction to Business Law	3
BAS	282	Principles of Marketing OR	3
MKT	282	Principles of Marketing	(3)
BAS	283	Principles of Management OR	3
MGT	283	Principles of Management	(3)
ACC	201	Financial Accounting OR	3
ACT	101	Fundamentals of Accounting I AND	(3)
ACT	102	Fundamentals of Accounting II	(3)
ACC	202	Managerial Accounting	3
		Technical	28-31
		Core Subtotal	46-49

Business Administration Systems Tracks

Accounting Track - 520201701

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, MDC, MYC, OWC, SKY, SMC, WKC)
Available Completely Online

Required:

ACT 279	Computerized Accounting Systems.....	3
ACT 281	Individual Taxation.....	3
ACT 286	Financial Accounting Topics.....	3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

ACT 196	Payroll Accounting	3
ACT 277	Managerial Accounting Topics	3
BAS 212	Introduction to Financial Management	3
ACT 290	Selected Topics in Accounting (Topic).....	1-3
ACT 295	Corporate and Partnership Taxation	3
BAS 110	Worksheets in Business Applications	3
BAS 120	Personal Finance	3
CIT 234	Advanced Productivity Software.....	3
CIT 236	Advanced Data Organization	3
COE 199	Cooperative Education: (Business Administration) OR	1-3
BAS 280	Business Internship	(1-3)
	Subtotal	15

Total Credits 61-64

Business Management Track – 520201717

(Offered at BLC, HZC, HEC, OWC)

Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Required:

MGT 200	Small Business Management OR.....	3
MGT 256	Operations Management	(3)
MGT 274	Human Resource Management OR	3
MGT 287	Supervisory Management	(3)
MGT 292	Strategic Management	3
MGT 101	Quality Management Principles.....	3

Choose a total of 6 hours from the following:

ENG 203	Business Writing	3
BAS 120	Personal Finance	3
MGT 200	Small Business Management	3
MGT 240	Business Ethics and Self-Management.....	3
MGT 256	Operations Management	3
MGT 258	Project Management	3
MGT 274	Human Resource Management.....	3
MGT 287	Supervisory Management	3
MGT 288	Self-Management	3
MKT 155	Personal Selling	3
MKT 290	Advertising and Promotion	3
MKT 291	Retail Management.....	3
MKT 293	Buying and Merchandising	3
MGT 299	Selected Topics in Business Management: (Topic).....	1-3
MKT 299	Selected Topics in Marketing: (Topic)	1-3
IMD 275	Workplace Management.....	3
COE 199	Cooperative Education	1-4
ECO 202	Principles of Macroeconomics	3
REA 100	Real Estate Principles I	3
REA 120	Real Estate Marketing.....	3
MA 123	Elementary Calculus	3
STA 291	Statistical Methods.....	3
PSY 110	General Psychology OR.....	3
SOC 101	Introduction to Sociology	(3)
	Subtotal	18

Total Credits 64-67

Equine Business Management Track –520201718

(Offered at BLC)

Required:

EQS 110	Basic Equine Physiology	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab OR.....	3
EQS 299	Equine Internship.....	(1-9)
EQS 118	Equine Bloodstock.....	3
EQM 120	Introduction to Commercial Breeding Practices	3
EQS 130	Introduction to the Racing Industry	3
EQS 240	Equine Legal and Business Principles.....	3
	Subtotal	19

Total Credits 65-68

Hospitality Management Track - 520201703

(Offered at BLC, BSC, WKC)

Required:

HOS 100	Introduction to Hospitality	3
CUL 100	Culinary Arts Profession.....	2
HOS 282	Tourism Marketing.....	3

Choose 9 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses (HOS, CUL, & BAS) as approved by the Business Administration Systems Program Coordinator.

BAS 200	Small Business Management	3
BAS 274	Human Resource Management.....	3
BAS 290	Management, Ethics & Society	3
COE 199	Cooperative Education: Business Administration OR	1-3
BAS 280	Business Internship	(1-3)
CUL 200	Sanitation & Safety.....	2
CUL 105	Applied Fundamental of the Culinary Arts Profession	2
CUL 280	Cost & Control.....	3
HOS 160	Security for the Hospitality Industry	3
HOS 200	Cultural Heritage Tourism	3
HOS 210	Front Office Management.....	3
HOS 220	Housekeeping & Maintenance Management	3
CUL 270	Human Relations Management.....	3
	Subtotal Credits	17

Total 63-66

Human Resource Management Track - 520201715

(Offered at BLC, ELC, HEC, MDC, SKY, WKC)

Available Completely Online

Required:

BAS 274	Human Resource Management.....	3
BAS 287	Supervisory Management	3
ACT 196	Payroll Accounting	3

Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses with no more than 3 credit hours from IFM courses to count towards graduation:

BAS 280	Business Internship OR.....	1-4
COE 199	Cooperative Education	(1-4)
BAS 284	Applied Management Skills	3
BAS 288	Person & Organizational Leadership	3
BAS 290	Management, Ethics & Society	3
BAS 299	Selected Topics in Management: (Track Topic).....	1-3
ISX 100	Industrial Safety	3
OST 275	Office Management	3
QMS 101	Introduction to Quality Systems	3
QMS 202	Performance Management	3
PSY 180	Human Relations	3
IFM 111	Client-Side Informatics Software	3
IFM 128	Principles of Informatics	3
IFM 130	Business Data Communications	3
IFM 211	Collaboration Software	3

IFM	215	Information Systems Analysis	3
IFM	225	Advanced Informatics	3
IFM	235	Information Systems and Business Intelligence	3
		Subtotal	18
		Total Credits	64-67

Informatics Track - 520201716
(Offered at GTW, HEC, MYC, SMC)

Required:

IFM	128	Principles of Informatics	3
CIT	170	Database Design Fundamentals	3
IFM	215	Information Systems Analysis	3

Choose 6 hours from the following Technical Courses.

Students may select other courses (CIT & BAS) as approved by the Business Administration Systems Program Coordinator.

CIT	120	Computational Thinking	3
IFM	130	Business Data Communication	3
IFM	235	Information Systems and Business Intelligence	3
MGT	258	Project Management	3
IFM	111	Client-Side Informatics Software	3
IFM	225	Advanced Informatics	3
IFM	211	Collaboration Software	3
CIT	150	Internet Technologies	3
		Subtotal	18
		Total Credits	64-67

Management Track - 520201708

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

Required:

BAS	212	Introduction to Financial Management OR	3
		Second Quantitative Reasoning Course*	(3)
BAS	284	Applied Management Skills	3

*Must be a General Education Quantitative Reasoning that is different from core Quantitative Reasoning selection.

Choose 11-12 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

Management Courses

BAS	170	Entrepreneurship	3
BAS	200	Small Business Management	3
BAS	212	Introduction to Financial Management	3
BAS	289	Operations Management	3
BAS	290	Management, Ethics & Society	3
BAS	256	International Business	3
BAS	260	Professional Development and Protocol	2
BAS	274	Human Resource Management	3
BAS	285	Problems in Marketing and Management	3
BAS	287	Supervisory Management	3
BAS	288	Personal and Organizational Leadership	3
BAS	291	Retail Management	3
BAS	299	Selected Topics in Management: (Track Topic)	1-3
OST	275	Office Management	3
QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Service Improvement Skills	3
QMS	202	Performance Management	3

Technical Courses:

ACT	196	Payroll Accounting	3
ACT	177	Entrepreneurial Accounting	3
BAS	110	Worksheets in Business Applications	3
BAS	120	Personal Finance	3
CIT	234	Advanced Productivity Software	3

CIT	236	Advanced Data Organization	3
ENG	203	Business Writing OR	(3)
OST	235	Business Communications Technology	(3)
COE	199	Cooperative Education: (Business Administration) OR	1-4
BAS	280	Business Internship	(1-4)
ECO	150	Introduction to Global Economics	3
ECO	201	Principles of Microeconomics OR	3
ECO	202	Principles of Macroeconomics	(3)
LOM	100	Introduction to Logistics Management	3
CIT	155	Web Page Development	3
IFM	111	Client-Side Informatics Software	3
IFM	128	Principles of Informatics	3
IFM	130	Business Data Communications	3
IFM	211	Collaboration Software	3
IFM	215	Information Systems Analysis	3
IFM	225	Advanced Informatics	3
IFM	235	Information Systems and Business Intelligence	3
		Subtotal	17-18
		Total Credit	63-67

Marketing and Retailing Track - 520201719

(Offered at BLC, OWC)

Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Required:

MKT	155	Personal Selling OR	3
COE	199	Cooperative Education	(3)
MKT	290	Advertising and Promotion	3
MKT	291	Retail Management	3
MKT	293	Buying and Merchandising	3

Choose 6 hours from the following:

ENG	203	Business Writing	3
BAS	120	Personal Finance	3
MGT	200	Small Business Management	3
MGT	258	Project Management	3
MGT	288	Self-Management	3
MKT	299	Selected Topics in Marketing: (Topic)	1-3
COE	199	Cooperative Education	1-4
ECO	202	Principles of Macroeconomics	3
		Subtotal	18
		Total Credits	64-67

Office Systems Track - 520201705

(Offered at BSC, ELC, HEC, HZC, MDC, MYC, SMC, WKC)
Available Completely Online

Required:

OST	110	Document Formatting and Word Processing	3
OST	210	Advanced Word Processing Applications	3
OST	215	Office Procedures	3
OST	220	Administrative Office Simulations	3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.

OST	150	Transcription and Office Technology	3
OST	160	Records and Database Management	3
OST	216	Selected Topics in Office Systems: (Topic)	1-3
OST	235	Business Communications Technology	3
OST	295	Office Systems Technology Internship OR	1-3
COE	199	Cooperative Education: (Business Technology) OR	(1-3)
BAS	280	Business Internship	(1-3)
OST	275	Office Management	3
		Subtotal	18
		Total Credits	64-67

Real Estate Management Track - 520201706

(Offered at BSC, BLC, ELC, WKC)

Required:

REA 100	Real Estate Principles I	3
REA 121	Appraising	3
REA 225	Real Estate Finance	3
REA 230	Real Estate Law	3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.

REA 120	Real Estate Marketing	3
REA 122	Construction and Blueprints	3
REA 200	Real Estate Principles II	3
REA 201	Property Management	3
REA 202	Real Estate Investments I	3
REA 203	Commercial and Industrial Property	3
REA 204	Land Planning and Development	3
REA 205	Farm Brokerage	3
REA 212	Real Estate Investments II	3
REA 220	Real Estate Brokerage Management	3
COE 199	Cooperative Education: (Business Administration)	1-4
	OR	
BAS 280	Business Internship	(1-4)
	Subtotal	18

Total Credits 64-67

Diplomas

Accounting- 5202014049

(Offered at BSC, GTW, HPC, MYC, OWC, SMC, WKC)

General Education:

Area 1 =

ENG 101	Writing I	3
ENG 102	Writing II OR	3
ENG 203	Business Writing OR	(3)
OST 235	Business Communications Technology	(3)
	Oral Communications	3

Area 2 =

Quantitative Reasoning course 3
(Excluding MAT 205, MAT 206, STA 200, STA 210)

General Education Subtotal 12

Required Technical:

	Digital Literacy	0-3
CIT 130	Productivity Software OR	3
OST 240	Software Integration	(3)
ACC 201*	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
ACT 279	Computerized Accounting Systems	3
COE 199	Cooperative Education OR	3
BAS 280	Business Internship	(3)
	Additional accounting hours approved by Program Coordinator	6
	Required Technical Subtotal	18-24

Related Courses (Choose 6 credit hours from the following list with Program Coordinator Approval)

BAS 120	Personal Finance	3
BAS 267	Introduction to Business Law	3
BAS 283	Principles of Management	3
BAS 200	Small Business Management	3
BAS 260	Professional Development and Protocol	2
	Economics course	3
	Quantitative Reasoning course	3
	Total Credits	39-45

*No course can be used to fulfill more than one requirement.

Informatics - 5202014059

(Offered at HEC, MYC, SMC)

General Education:

Area 1 =

ENG 101	Writing I	3
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Area 2 =

ECO	Any Economics Course	3
	General Education Subtotal	6

Required Technical:

CIT 105	Introduction to Computers OR	3
OST 105	Introduction to Information Systems	(3)
BAS 160	Introduction to Business	3
BAS 283	Principles of Management	3
BAS 282	Principles of Marketing	3
ACC 201	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
IFM 128	Principles of Informatics	3
CIT 170	Database Design Fundamentals	3
IFM 215	Information Systems Analysis	3
BAS 280	Business Internship OR	1-3
COE 199	Cooperative Education	(1-4)
	Required Technical Subtotal	25-31

Related Courses (Choose 6 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.)

IFM 130	Business Data Communication	3
IFM 235	Information Systems and Business Intelligence	3
MGT 258	Project Management	3
IFM 111	Client-Side Informatics Software	3
IFM 225	Advanced Informatics	3
IFM 211	Collaboration Software	3
CIT 150	Internet Technologies	3
CIT 120	Computational Thinking	3
	Approved Technical Subtotal	6

Total Credits 40-45

No course can be used to fulfill more than one requirement

Office Systems - 5202014019

(Offered at BSC, HZC, MDC, SMC, WKC)

General Education:

Area 1 =

ENG 101	Writing I OR	3
COM 181	Basic Public Speaking OR	(3)
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

ECO	Any Economics Course	3
	General Education Subtotal	6

Required Technical:

CIT 105	Introduction to Computers OR	3
OST 105	Introduction to Information Systems	(3)
ACC 201	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
BAS 160	Introduction to Business	3
OST 110	Document Formatting and Word Processing	3
OST 210	Advanced Word Processing Applications	3
OST 213	Business Calculations for the Office Professional	3
OST 215	Office Procedures	3
OST 220	Administrative Office Simulations	3
CIT 130	Productivity Software OR	3
OST 240	Software Integration	(3)
BAS 280	Business Internship OR	1-4
COE 199	Cooperative Education	(1-3)
	Required Technical Subtotal	28-34

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.

OST 150	Transcription and Office Technology	3
OST 160	Records and Database Management	3
OST 216	Selected Topics in Office Systems: (Topic)	1-3
OST 235	Business Communications Technology	3
OST 295	Office Systems Technology Internship OR	1-3
OST 275	Office Management	3
	Approved Technical Courses	6
Total Credits		40-46

Organizational Leadership - 5202014029

(Offered at BSC, ELC, JFC, MDC, OWC, SKY, SMC, WKC)
Available Completely Online

General Education:

Area 1 =

ENG 101	Writing I OR	3
COM 181	Basic Public Speaking OR	(3)
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

ECO	Any Economics Course	3
General Education Subtotal		6

Required Technical:

CIT 105	Introduction to Computers OR	3
OST 105	Introduction to Information Systems	(3)
BAS 160	Introduction to Business	3
BAS 283	Principles of Management	3
BAS 284	Applied Management Skills	3
BAS 287	Supervisory Management	3
BAS 288	Personal and Organizational Leadership	3
ACC 201	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
BAS 280	Business Internship OR	1-3
COE 199	Cooperative Education	(1-4)
Required Technical Subtotal		22-28

Choose 11-12 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 212	Introduction to Financial Management	3
BAS 260	Professional Development and Protocol	2
BAS 267	Introduction to Business Law	3
BAS 274	Human Resource Management	3
BAS 282	Principles of Marketing	3
BAS 290	Management, Ethics & Society	3
OST 275	Office Management	3
ACC 202	Managerial Accounting	3
CIT 130	Productivity Software OR	3
OST 240	Software Integration	(3)
QMS 101	Introduction to Quality Systems	3
	Quantitative Reasoning Course	3
Approved Technical Courses		11-12
Total Credits		39-46

Small Business Management - 5202014039

(Offered BSC, ELC, HZC, JFC, MDC, SKY, SMC, WKC)
Available Completely Online

General Education:

Area 1 =

ENG 101	Writing I OR	3
COM 181	Basic Public Speaking OR	(3)
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

ECO	Any Economics Course	3
General Education Subtotal		6

Required Technical:

CIT 105	Introduction to Computers OR	3
OST 105	Introduction to Information Systems	(3)
BAS 160	Introduction to Business OR	3
BAS 170	Entrepreneurship*	(3)
BAS 200	Small Business Management	3
BAS 212	Introduction to Financial Management * OR	3
	Second Quantitative Reasoning Course*	(3)
BAS 267	Introduction to Business Law	3
BAS 282	Principles of Marketing	3
BAS 283	Principles of Management	3
ACC 201	Financial Accounting OR	3
ACT 177	Entrepreneurial Accounting OR	(3)
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
BAS 280	Business Internship OR	1-3
COE 199	Cooperative Education	(1-4)
Required Technical Subtotal		25-31

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 212	Introduction to Financial Management *	3
BAS 170	Entrepreneurship*	3
BAS 274	Human Resource Management	3
BAS 284	Applied Management Skills	3
BAS 287	Supervisory Management	3
BAS 288	Personal and Organizational Leadership	3
BAS 290	Management, Ethics & Society	3
ACT 196	Payroll Accounting	3
ACC 202	Managerial Accounting	3
CIT 130	Productivity Software OR	3
OST 240	Software Integration	(3)
QMS 101	Introduction to Quality Systems	3
QMS 201	Customer Service Improvement Skills	3
Approved Technical Courses		6
Total Credits		37-43

*Not allowed as an Approved Technical Course if course has been taken as a required course.

Certificates

Accounting - 5202013119

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

Required:

ACC 201	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
ACC 202	Managerial Accounting	3

Choose 12 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator

ACT 196	Payroll Accounting	3
ACT 277	Managerial Accounting Topics	3
ACT 279	Computerized Accounting Systems	3
ACT 281	Individual Taxation	3
ACT 286	Financial Accounting Topics	3
ACT 290	Selected Topics in Accounting (Topic)	1-3
ACT 295	Corporate and Partnership Taxation	3
BAS 120	Personal Finance	3
BAS 212	Introduction to Financial Management	3

CIT	234	Advanced Productivity Software	3
CIT	236	Advanced Data Organization	3
COE	199	Cooperative Education: (Business Administration) OR	3
BAS	280	Business Internship	(1-4)
Total Credits			18-21

EQM	246	Current Trends in the Equine Industry.....	1
PSY	110	General Psychology	3
MGT	101	Quality Management Principles.....	3
Total Credits			23

Accounting Recordkeeping Specialist - 5202013429

(Offered at ASC, BSC, ELC, HEC, OWC, MDC, MYC, SEC, SKY,WKC)

Required:

ACC	201	Financial Accounting OR.....	3
ACT	101	Fundamentals of Accounting I AND	(3)
ACT	102	Fundamentals of Accounting II	(3)
ACT	196	Payroll Accounting	3
ACT	279	Computerized Accounting Systems.....	3
ACT	281	Individual Taxation.....	3
ACT	286	Financial Accounting Topics	3
CIT	105	Introduction to Computers OR.....	3
OST	105	Introduction to Information Systems.....	(3)
Total Credits			18-21

Advanced Business Administration - 5202013129

(Offered at ASC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required:

BAS	282	Principles of Marketing	3
BAS	283	Principles of Management	3
BAS	267	Introduction to Business Law	3
BAS	284	Applied Management Skills	3
CIT	130	Productivity Software OR	3
OST	240	Software Integration	(3)
Total Credits			15

Business Transfer - 5202013149

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

Available Completely Online

Required:

ACC	201	Financial Accounting	3
ACC	202	Managerial Accounting	3
ECO	201	Principles of Microeconomics	3
ECO	202	Principles of Macroeconomics	3
STA	220	Statistics	3
Total Credits			15

Entrepreneurship – 5202013379

(Offered at ELC, GTW, HEC, HPC, MDC, OWC, SEC, SKY,WKC)

Required:

ACC	201	Financial Accounting OR.....	3
ACT	177	Entrepreneurial Accounting	(3)
BAS	170	Entrepreneurship	3
BAS	282	Principles of Marketing.....	3
BAS	288	Personal and Organizational Leadership.....	3
Total Credits			12

Equine Business Management – 5202013479

(Offered at BLC, HEC)

Required:

EQM	100	Introduction to Equine Studies.....	3
EQM	120	Introduction to Commercial Breeding	3
EQM	140	Equine Business Management I.....	2
BAS	160	Introduction to Business.....	3
EQM	240	Equine Business Management II.....	2
EQM	242	Equine Law	3

Financial Perspectives - 5202013159

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required:

ACC	201	Financial Accounting OR.....	3
ACT	101	Fundamentals of Accounting I AND	(3)
ACT	102	Fundamentals of Accounting II	(3)
BAS	160	Introductions to Business.....	3
BAS	120	Personal Finance	3
Total Credits			9-12

General Business - 5202013169

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

Available Completely Online

Required:

BAS	160	Introduction to Business	3
CIT	105	Introduction to Computers OR.....	3
OST	105	Introduction to Information Systems.....	(3)
ACT	101	Fundamentals of Accounting I OR.....	3
ACC	201	Financial Accounting	(3)
ECO		Any Economics Course	3
Total Credits			12

Hospitality Management - 5202013179

(Offered at BLC, BSC, HZC, SEC,WKC)

Required:

HOS	100	Introduction to Hospitality	3
CUL	100	Culinary Arts Profession.....	2
HOS	282	Tourism Marketing	3

Choose 9 hours from the following Technical Courses.

Students may select other courses (HOS or CUL) as approved by the Business Administration Systems Program Coordinator.

BAS	200	Small Business Management	3
BAS	274	Human Resource Management.....	3
COE	199	Cooperative Education: Business Administration OR	1-3
BAS	280	Business Internship OR.....	(1-4)
BAS	290	Management, Ethics & Society	(1-3)
CUL	200	Sanitation & Safety.....	2
CUL	105	Applied Fundamentals of the Culinary Arts Profession	2
CUL	280	Cost & Control.....	3
HOS	160	Security for the Hospitality Industry	3
HOS	200	Cultural Heritage Tourism	3
HOS	210	Front Office Operations & Management	3
HOS	220	Housekeeping & Maintenance Management	3
CUL	270	Human Relations Management.....	3
Total Credits			17

Human Resource Management - 5202013359

(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY,WKC)

Required:

BAS	274	Human Resource Management.....	3
BAS	287	Supervisory Management	3
ACT	196	Payroll Accounting	3

Choose 9 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS	280	Business Internship OR.....	1-3
COE	199	Cooperative Education	(1-3)
ISX	100	Industrial Safety	3
BAS	284	Applied Management Skills	3
BAS	288	Person & Organizational Leadership	3
BAS	290	Management, Ethics & Society	3
BAS	299	Selected Topics in Management: (Track Topic).....	3
OST	275	Office Management	1-3
QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Service Improvement Skills	3
QMS	202	Performance Management	3
PSY	180	Human Relations	3
IFM	111	Client-Side Informatics Software	3
IFM	128	Principles of Informatics	3
IFM	130	Business Data Communications	3
IFM	211	Collaboration Software	3
IFM	215	Information System Analysis	3
IFM	225	Advanced Informatics	3
IFM	235	Information Systems and Business Intelligence	3
		Total Credits	18

Industrial Supervisor - 5202013339

(Offered at ASC, HPC, SEC)

General Education:

ENG	101	Writing I	3
MAT	150	College Algebra	3
COM	181	Basic Public Speaking OR	3
COM	252	Interpersonal Communications OR	(3)
PSY	110	General Psychology	(3)

Required Technical:

BAS	287	Supervisory Management	3
INDT	120	Industrial Safety	3
INDT	233	Statistical Process Control	3
BAS	274	Human Resource Management.....	3
CIT	105	Introduction to Computers OR.....	3
OST	105	Introduction to Information Systems.....	(3)

Choose 6 hours from the approved Technical Courses:

BAS	160	Introduction to Business	3
INDT	220	Introduction to Industrial Psychology.....	3
ENV	101	Fundamentals of Environment Science	1
ENV	132	Environment Management.....	2
INDT	250	Team Dynamics & Problem – Solving.....	3
		Total Credits	30

Informatics Fundamentals - 5202013449

(Offered at HEC, MYC, SEC, SMC)

IFM	128	Principles of Informatics	3
CIT	170	Database Design Fundamentals.....	3
IFM	215	Information Systems Analysis.....	3
		Total Credits	9

Informatics Business Analyst – 5202013459

(Offered at HEC, MYC, SEC, SMC)

Required: Choose 6 hours from the following Courses.

IFM	130	Business Data Communications	3
IFM	235	Information Systems and Business Intelligence	3
IFM	111	Client-Side Informatics Software	3
		Total Credits	6

Leadership - 5202013199

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

Required:

BAS	288	Personal and Organizational Leadership.....	3
BAS	160	Introduction to Business	3
ECO		Any Economics Course	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communication.....	(3)
		Total Credits	12

Management - 5202013209

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

Required:

BAS	283	Principles of Management	3
BAS	212	Introduction to Financial Management OR	3
		Second Quantitative Reasoning Course from General Education not duplicative of core math	(3)
BAS	284	Applied Management Skills	3

Choose 6 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator:

BAS	200	Small Business Management	3
BAS	256	International Business.....	3
BAS	260	Professional Development & Protocol.....	2
BAS	274	Human Resource Management.....	3
BAS	285	Problems in Marketing & Management.....	3
BAS	287	Supervisory Management	3
BAS	288	Personal & Organizational Leadership	3
BAS	289	Operations Management	3
BAS	290	Management, Ethics & Society	3
BAS	291	Retail Management.....	3
BAS	299	Selected Topics Management: (Track Topic).....	1-3
OST	275	Office Management	3
QMS	101	Introduction to Quality Systems	3
QMS	202	Performance Management	3
		Total Credit Hours	15

Office Systems - 5202013219

(Offered at BSC, HEC, HZC, MDC, SEC, SMC, WKC)

Required:

OST	110	Document Formatting and Word Processing.....	3
OST	210	Advanced Word Processing Applications.....	3
OST	215	Office Procedures	3
OST	220	Administrative Office Simulations	3

Choose 6 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

OST	150	Transcription and Office Technology	3
OST	160	Records and Database Management.....	3
OST	216	Selected Topics in Office Systems: (Topic)	1-3
OST	235	Business Communications Technology	3
OST	295	Office Systems Technology Internship OR	1-3
COE	199	Cooperative Education: (Business Technology) OR	(1-3)
BAS	280	Business Internship	(1-4)
OST	275	Office Management	3
		Total Credits	18

Operations Management - 5202013369

(Offered at BLC, BSC, GTW, HEC, HPC, MYC, SEC, WKC)

Required:

BAS 160	Introduction to Business	3
BAS 287	Supervisory Management OR	3
BAS 288	Personal & Organizational Leadership OR	(3)
QMS 101	Introduction to Quality Systems	(3)
BAS 289	Operations Management OR	3
MFG 256	Production Management	(3)
COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Skills	(3)
Total Credits		12

Payroll Accounting Specialist - 5202013439

(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, OWC, SEC, SKY, WKC)

Required:

ACC 201	Financial Accounting OR	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
ACT 196	Payroll Accounting	3
ACT 279	Computerized Accounting Systems	3
Total Credits		9-12

Pre-Licensing Real Estate - 5202013239

(Offered at ASC, BLC, BSC, ELC, MDC, MYC, SEC, WKC)

Required:

REA 100	Real Estate Principles I	3
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Choose 3 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

REA 120	Real Estate Marketing	3
REA 200	Real Estate Principles II	3
REA 225	Real Estate Finance	3
REA 230	Real Estate Law	3
Total Credits		6

Real Estate Pre-Brokerage Management - 5202013489

(Offered at BLC, SEC)

REA 100	Real Estate Principles I	3
REA 220	Brokerage Management	3
REA 230	Real Estate Law	3
Subtotal		9

Choose 9 hours from the following list:

REA 120	Real Estate Marketing	3
REA 121	Appraising	3
REA 122	Construction and Blueprints	3
REA 201	Property Management	3
REA 202	Real Estate Investments I	3
REA 225	Real Estate Finance	3
Subtotal		9

Additional General Education Requirements

Choose 6 hours from the following:

PSY 110	General Psychology	3
ECO 201	Principles of Microeconomics	3
ACC 201	Financial Accounting	3
CIT 130	Productivity Software OR	3
OST 240	Software Integration	(3)
Subtotal		6
Total Credits		24

Residential Real Estate - 5202013249

(Offered at BSC, ELC, MDC, MYC, SEC, WKC)

Required:

REA 100	Real Estate Principles I	3
REA 120	Real Estate Marketing	3

Choose 6 hours from the following Approved Technical Courses.

REA 121	Appraising	3
REA 122	Construction and Blueprints	3
REA 200	Real Estate Principles II	3
REA 201	Property Management	3
REA 225	Real Estate Finance	3
REA 230	Real Estate Law	3
Total Credits		12

Sales - 5202013259

(Offered at BSC, ELC, GTW, MYC, OWC, SMC)

Required:

BAS 155	Personal Selling	3
COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communication	(3)

Choose 6 hours from the following Technical Courses.

Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 291	Retail Management	3
CIT 155	Web Page Development	3
QMS 201	Customer Service Improvement Skills	3
BAS 260	Professional Development and Protocol	2
COE 199	Cooperative Education OR	1-3
BAS 280	Business Internship	(1-4)
Total Credits		12

Small Business Management - 5202013269

(Offered at ASC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required:

BAS 160	Introduction to Business OR	3	
BAS 170	Entrepreneurship	(3)	
BAS 200	Small Business Management	3	
BAS 212	Introduction to Financial Management OR	3	
		Second Quantitative Reasoning Course from	
		General Education	(3)
BAS 282	Principles of Marketing	3	
ACC 201	Financial Accounting OR	3	
ACT 177	Entrepreneurial Accounting OR	(3)	
ACT 101	Fundamentals of Accounting I AND	(3)	
ACT 102	Fundamentals of Accounting II	(3)	
BAS 287	Supervisory Management OR	3	
BAS 288	Personal & Organization Leadership	(3)	
Total Credits		18-21	

Supervisory Management - 5202013279

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC,

SEC, SKY, SMC, WKC)

Available Completely Online

Required:

CIT 105	Introduction to Computers OR	3
OST 105	Introduction to Information Systems	(3)
OST 235	Business Communications Technology	3
BAS 160	Introduction to Business	3
BAS 287	Supervisory Management	3
BAS 274	Human Resource Management	3

Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS	283	Principles of Management	3
BAS	288	Personal and Organizational Leadership.....	3
BAS	290	Management, Ethics & Society	3
OST	275	Office Management	3
QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Service Improvement Skills.....	3
Total Credits			21

Team Leadership - 5202013309

(Offered at BLC, BSC, ELC, HEC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)
Available Completely Online

Required Courses:

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
OST	235	Business Communication Technology	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communications.....	(3)
BAS	287	Supervisory Management	3
BAS	288	Personal & Organizational Leadership	3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator

QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Service Improvement Skills.....	3
QMS	202	Performance Management	3
BAS	160	Introduction to Business.....	3
BAS	274	Human Resource Management.....	3
BAS	290	Management, Ethics & Society	3
Total Credits			18

Medical Information Technology

Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Coder, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Medical Information Technology - 5107167019

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

MAT	105	Business Math OR	3
MAT	110	Applied Mathematics OR	(3)
MAT	150	College Algebra OR.....	(3)
		A Higher Level Quantitative Reasoning Course.....	(3)
ENG	101	Writing I	3
BIO	135	Basic Anatomy and Physiology with Laboratory**	4
		Oral Communications	3
		Heritage/Humanities	3
		Social/Behavioral Sciences	3
Subtotal			19

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Technical Core:

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
OST	110	Document Formatting and Word Processing.....	3
MIT	230	Medical Information Management.....	3
OST	240	Software Integration OR	3
CIT	130	Productivity Software.....	(3)
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek and Latin	(3)
MIT	104	Medical Insurance	3
MIT	217	Medical Office Procedures	3
MIT	224	Medical Practice Management	3
MIT	228	Electronic Medical Records.....	3
MIT	295	Medical Information Technology Capstone.....	3
Subtotal			30

Medical Administrative Track - 510716705

(Offered at ASC, BLC, BSC, ELC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)
Available Completely Online

ACT	101	Fundamentals of Accounting I OR.....	3
ACC	201	Financial Accounting I	(3)
OST	225	Introduction to Desktop Publishing	3
OST	235	Business Communications Technology	3
OST	210	Advanced Word Processing Application.....	3
		Course Approved by Program Coordinator	3
Subtotal			15
Total			64

Medical Coding Track - 510716706

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)
Available Completely Online

ACT	101	Fundamentals of Accounting I OR.....	3
ACC	201	Financial Accounting I	(3)
MIT	204	Medical Coding	3
MIT	205	Advanced Medical Coding	3
OST	235	Business Communication Technology	3
		Course Approved by Program Coordinator	3
Subtotal			15
Total			64

Electronic Medical Records Track - 510716707

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)
Available Completely Online

ACT	101	Fundamentals of Accounting I OR.....	3
ACC	201	Financial Accounting I	(3)
OST	210	Advanced Word Processing Application.....	3
OST	235	Business Communications Technology	3
		Courses Approved by Program Coordinator.....	6
Subtotal			15
Total			64

Medical Office Management Track - 510716709

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

ACT	101	Fundamentals of Accounting I OR.....	3
ACC	201	Financial Accounting I	(3)
OST	235	Business Communications Technology	3
BAS	160	Introduction to Business	3
OST	275	Office Management	3
		Courses Approved by Program Coordinator.....	3
Subtotal			15
Total			64

Medical Transcription Track - 510716708

(Offered at BLC, BSC, ELC, HZC, MYC, OWC, SMC, WKC)

Available Completely Online

MIT	106	Introduction to Medical Transcription	3
MIT	206	Medical Transcription	3
OST	210	Advanced Word Processing Application.....	3
OST	235	Business Communications Technology	3
		Course Approved by Program Coordinator	3
		Subtotal	15
		Total	64

Diplomas

Medical Administrative Assistant - 5107164019

(Offered at ASC, BLC, BSC, ELC, HZC, JFC, MDC, MYC, SKY, SMC, WKC)

Available Completely Online

General Education / Applied Academics

BIO	135	Basic Anatomy and Physiology with Laboratory**	4
OST	108	Editing Skills for Office Professionals OR.....	3
ENG	101	Writing I	(3)
		Subtotal	7

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Technical or Support Courses

ACT	101	Fundamentals of Accounting I OR	3
ACC	201	Financial Accounting I	(3)
OST	110	Document Formatting and Word Processing	3
OST	213	Business Calculation for Office Professionals OR	3
MAT	105	Business Mathematics OR.....	(3)
		Higher Quantitative Reasoning course.....	(3)
OST	235	Business Communications Technology	3
MIT	230	Medical Information Management.....	3
OST	210	Advanced Word Processing Application.....	3
OST	240	Software Integration OR	3
CIT	130	Productivity Software.....	(3)
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	295	Medical Information Technology Capstone.....	3
MIT	104	Medical Insurance	3
MIT	217	Medical Office Procedures.....	3
MIT	228	Electronic Medical Records.....	3
OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
		Course Approved by Program Coordinator	3
		Subtotal	42
		Total	49

Medical Records Specialist - 5107164069

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, SMC, WKC)

Available Completely Online

General Education / Applied Academics

BIO	135	Basic Anatomy and Physiology with Laboratory**	4
OST	108	Editing Skills for Office Professional OR.....	3
ENG	101	Writing I	(3)
		Subtotal	7

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Technical or Support Courses

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
OST	110	Document Formatting and Word Processing.....	3
OST	235	Business Communications Technology	3
OST	210	Advanced Word Processing Application.....	3
OST	240	Software Integration OR	3
CIT	130	Productivity Software.....	(3)

MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	295	Medical Information Technology Capstone.....	3
MIT	230	Medical Information Management.....	3
MIT	217	Medical Office Procedures.....	3
MIT	228	Electronic Medical Records.....	3
		Subtotal	30
		Total	37

Certificates

Medical Unit Coordinator - 5107163019

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
BIO	135	Basic Anatomy and Physiology with Laboratory**	4
OST	108	Editing Skills for Office Professionals OR.....	3
ENG	101	Writing I	(3)
OST	110	Document Formatting and Word Processing.....	3
MIT	230	Medical Information Management.....	3
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	104	Medical Insurance	3
MIT	217	Medical Office Procedures.....	3
MIT	224	Medical Practice Management	3
MIT	228	Electronic Medical Records.....	3
		Total	31

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Hospital Admissions Specialist - 5107163029

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
OST	108	Editing Skills for Office Professionals OR.....	3
ENG	101	Writing I	(3)
OST	110	Document Formatting and Word Processing.....	3
OST	235	Business Communications Technology	3
MIT	230	Medical Information Management.....	3
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	104	Medical Insurance	3
MIT	217	Medical Office Procedures.....	3
MIT	224	Medical Practice Management	3
MIT	228	Electronic Medical Records.....	3
		Total	30

Medical Receptionist - 5107163110

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
OST	110	Document Formatting and Word Processing.....	3
MIT	230	Medical Information Management.....	3
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	217	Medical Office Procedures.....	3
		Total	15

Medical Coding - 5107163079

(Offered by ASC, BLC, BSC, ELC, HZC, HPC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

OST	110	Document Formatting and Word Processing.....	3
BIO	135	Basic Anatomy and Physiology with Lab**	4
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	104	Medical Insurance	3
MIT	204	Medical Coding	3
MIT	205	Advanced Medical Coding	3
		Course approved by the Program Coordinator.....	3
		Total	22

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Medical Transcriptionist – 5107163089

(Offered by BLC, BSC, ELC, HZC, MYC, SEC, SKY, SMC, WKC)

OST	108	Editing Skills for Office Professionals OR.....	3
ENG	101	Writing I	(3)
OST	110	Document Formatting and Word Processing.....	3
OST	210	Advanced Word Processing Applications.....	3
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	106	Introduction to Medical Transcription	3
MIT	206	Medical Transcription	3
MIT	217	Medical Office Procedures.....	3
		Course Approved by Program Coordinator	3
		Total	24

Electronic Health Records Specialist – 5107163069

(Offered by ASC, BSC, BLC, ELC, HZC, MDC, HPC, OWC, SKY, SMC, WKC)

MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin.....	(3)
MIT	104	Medical Insurance	3
OST	110	Document Formatting and Word Processing.....	3
MIT	217	Medical Office Procedures.....	3
MIT	224	Medical Practice Management	3
MIT	228	Electronic Medical Records.....	3
MIT	230	Medical Information Management.....	3
OST	240	Software Integration OR	3
CIT	130	Productivity Software	(3)
OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
		Course Approved by Program Coordinator	1-3
		Total	28-30

Medical Scribe – 5107163099

(Offered by BSC, BLC, ELC, HZC, JFC, MDC, MYC, OWC, SKY, SMC)

OST	110	Document Formatting and Word Processing.....	3
BIO	135	Basic Anatomy and Physiology with Lab**	4
MIT	103	Medical Office Terminology OR	3
AHS	115	Medical Terminology OR	(3)
CLA	131	Medical Terminology from Greek & Latin OR	(3)
OST	108	Editing Skills for Office Professionals OR.....	3
ENG	101	Writing I	(3)
MIT	217	Medical Office Procedures.....	3
MIT	228	Electronic Medical Records.....	3
MIT	106	Introduction to Medical Transcription	3
MIT	230	Medical Information Management.....	3
OST	105	Introduction to Information Systems OR	3
CIT	105	Introduction to Computers	(3)
		Total	28

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Supply Chain Management

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

Associate in Applied Science

Supply Chain Management – 5202037029

(Offered at GTW)

General Education

ENG	101	Writing I	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communications.....	(3)
ECO	101	Contemporary Economic Issues OR	3
ECO	201	Principles of Microeconomics OR.....	(3)
ECO	202	Principles of Macroeconomics	(3)
MAT	110	Applied Mathematics or Higher Quantitative Reasoning	3
		Natural Sciences Course	3
		Heritage/Humanities	3
		Subtotal	18

Technical Courses

CIT	105	Introduction to Computers	3
OST	235	Business Communications.....	3
BAS	160	Introduction to Business.....	3
BAS	256	International Business.....	3
BAS	288	Personal and Organization Leadership.....	3
BAS	289	Operations Management	3
LOM	100	Introduction to Logistics Management.....	3
LOM	101	Transportation	3
LOM	102	Supply Chain Management.....	3
LOM	202	Applied Supply Chain Management	3
LOM	210	Lean for Logistics.....	3
QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Improvement Skills.....	3
QMS	212	Project Management OR.....	3
MGT	258	Project Management OR.....	(3)
QMS	251	Strategic Quality Planning	(3)
BAS	280	Business Internship OR	3
COE	199	Cooperative Education	(0-6)
		Subtotal	42-48

Total Credits

60-66

Certificate

Supply Chain Specialist – 5202033059

(Offered at GTW, HPC)

CIT 105	Introduction to Computers	3
LOM 100	Introduction to Logistics Management.....	3
LOM 102	Supply Chain Management.....	3
LOM 210	Lean for Logistics.....	3
OST 235	Business Communications OR	3
COM 252	Interpersonal Communications	(3)
	Total Credits	15

Logistics Quality Technician – 5202033069

(Offered at GTW, HPC)

CIT 105	Introduction to Computers	3
LOM 100	Introduction to Logistics Management.....	3
LOM 102	Supply Chain Management.....	3
LOM 210	Lean for Logistics.....	3
QMS 101	Introduction to Quality Systems	3
QMS 251	Strategic Quality Planning	3
OST 235	Business Communications OR	3
COM 252	Interpersonal Communications	(3)
	Total Credits	21

Logistics Operations – 5202033079

(Offered at GTW, HPC)

CIT 105	Introduction to Computers	3
LOM 100	Introduction to Logistics Management.....	3
LOM 102	Supply Chain Management.....	3
LOM 210	Lean for Logistics.....	3
BAS 289	Operations Management	3
QMS 212	Project Management OR.....	3
MGT 258	Project Management	(3)
OST 235	Business Communications OR	3
COM 252	Interpersonal Communications	(3)
	Total Credits	21

Business Communication

The certificate in business communication will prepare students for a career in the rapidly evolving and expanding community of global enterprise. Students will learn both theoretical and applied lessons concerning effective management, team building, evaluation, message construction, effective listening, and standards for establishing mentorships through networking and workplace integration and socialization. They will complete a 5 course, 15 credit hour sequence with 2 courses selected from among class options in business and 3 courses selected from among class options in communication. There is no definitive time frame for a student to complete the certificate and they may choose to incorporate it as part of their broader degree attainment.

Certificate

Business Communication – 5202013469

(Offered at ASC, BSC, OWC, SEC)

Complete 2 (two) course from the list below.		
BAS 160	Introduction to Business	3
BAS 274	Human Resource Management.....	3
BAS 282	Principles of Marketing.....	3
BAS 283	Principles of Management	3
BAS 287	Supervisory Management	3
	Subtotal	6

Complete 3 (three) course from the list below.

COM 181	Basic Public Speaking	3
COM 252	Introduction to Interpersonal Communication.....	3
COM 254	Introduction to Intercultural Communication.....	3
COM 281	Communication in Small Groups	3
COM 287	Persuasive Speaking	3
	Subtotal	9
	Total Credit Hours	15

Business Foundations

The Business Foundations certificate incorporates foundational knowledge of finance, quality systems, and external environmental factors that affect businesses today. The certificate will prepare students to perform functions in an integrated business environment and better understand organizational strategies.

Certificate

Business Foundations – 5201013029

(Offered at ASC, BSC, HZC, GTW, SEC)

QMS 101	Introduction to Quality Systems	3
ACC 201	Financial Accounting OR.....	3
ACT 101	Fundamentals of Accounting I AND	(3)
ACT 102	Fundamentals of Accounting II	(3)
ECO 201	Principles of Microeconomics OR.....	3
ECO 101	Contemporary Economic Issues OR	(3)
ECO 202	Principles of Macroeconomics	(3)
	Technical Courses*	9
	Total Credit Hours	18-21

Select 9 (nine) credit hours from the following technical courses*:

BAS 267	Introduction to Business Law	3
BAS 290	Management, Ethics & Society**	3
BAS 288	Personal & Organizational Leadership	3
QMS 240	Statistics for Quality I***	3
QMS 212	Project Management	3

**BAS 290 pre-requisite is BAS 283 or Consent of Instructor. BAS 283 pre-requisite is BAS 160 or Consent of Instructor.

***QMS 240 pre-requisite is MAT 150.

Certified Medical Technician

The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

Certificates

Certified Medical Technician – 5108993039

(Offered at MDC, SMC)

CPR 100	CPR for Healthcare Professionals.....	1
NAA 100	Nursing Assistant Skills I.....	3
PHB 152	Phlebotomy: Clinical Experience	1
PHB 170	Applied Phlebotomy	3
	Total	8

Civil Engineering Technology

The Civil Engineering Technology program is an Associates of Applied Science program designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing, commercial, residential and highway surveying; highway construction management; construction management; construction estimation; construction documentation; construction site design and waste-water management.

The Civil Engineering Technology Program will focus on the field tasks and hands on aspects of construction.

Associate in Applied Science

Civil Engineering Technology - 1502017019

(Offered at BLC, BSC)

Required

ENG 101	Writing I*	3
ENG 102	Writing II*	3
CAD 100	Introduction to Computer-Aided Design OR	3
ACH 185	Computer-Aided Drafting I	(3)
	Heritage/Humanities*	3
MA 109	College Algebra*	3
	Oral Communications Course*	3
PHY 211	General Physics*	5
	Social/Behavioral Sciences Course*	3

Core

ACH 160	Building Materials and Construction I	3
ACH 225	Structures	3
CE 211	Surveying	4
CET 150	Civil Engineering Graphics	3
CET 200	Civil Engineering Materials	3
CET 210	Structural Analysis and Design	3
CET 220	Intermediate Surveying	4
CET 260	Hydrology and Drainage	3
MA 112	Trigonometry	2
	Elective	3
	Technical Electives	9
	Subtotal	40
	Total	67

Technical Electives**

ACH 100	Construction Documents I	3
ACH 150	Construction Documents II	3
ACH 161	Building Materials and Construction II	3
ACH 285	Computer-Aided Drafting II	3
ACH 290	Building Codes I	3
ACH 291	Construction Management	3
ACH 292	Building Codes II	3
ACH 294	Specification Writing	3
ACH 297	Estimating Techniques	3
ACH 298	Computer 3D Modeling	3
CAD 200	Intermediate Computer-Aided Design	4
CET 280	Highway Design	3
CET 295	Independent Problems	1-4
COE 199	Cooperative Education: CET	3
GIS 110	Spatial Data Analysis and Map Interpretation	3
GIS 120	Introduction to Geographic Information Systems	3
GIS 210	Advanced Topics in GIS	3
GLY 220	Principles of Physical Geology	4

* Satisfies General Education requirement for AAS degree

**Other course(s) approved by program coordinator

Community Dental Health Coordinator

This program is designed for Registered Dental Hygienists (RDHs) who are interested in working in community dental health as Community Dental Health Coordinators (CDHCs). A CDHC is a Community Health Worker (CHW) with a focused skill set pertaining to oral health. CDHCs provide oral health education, prevention intervention, and low level dental care while helping patients navigate the public health system in pursuit of oral health care.

Certificate

Community Dental Health Coordinator – 5122083009

(Offered at BSC)

CDH 110	Dental Health Communication Skills	3
CDH 115	Dental Health Coordination, Documentation, Reporting, and Finance	3
CDH 125	Dental Health Teaching and Learning Skills	2
CDH 220	Prevention of Periodontal Disease	3
CDH 245	Community Dental Health Coordinator Internship	6
	Total	17

Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 2D and 3D CAD, and 3D printing. Specific skills taught include, but are not limited to, lettering, geometric construction, orthographic projections, dimensioning and tolerancing, and related technical processes. These skills are required to transform specifications and instructions of architects, designers, and engineers into complete and precise drawings. The drafter is a skilled technician with a thorough understanding of the graphic language and is an indispensable contributor to the engineering design team.

Progression in the Computer Aided Drafting and Design program is contingent upon achievement of a grade of "C" or greater in each technical and mathematics course with maintenance of a 2.0 cumulative grade point average or above (on a 4 scale).

Associate in Applied Science

Computer Aided Drafting and Design - 1513017029

(Offered at BLC, BSC, ELC)

General Education:

ENG 101	Writing I	3
	Quantitative Reasoning (MAT 105 excluded)	3
	Natural Sciences	3
	Social/Behavioral Sciences	3
	Heritage/Humanities	3
	Oral Communications	3
	Subtotal	18

Technical Core:

CAD 103	CAD Fundamentals (Digital Literacy Course) OR	4
CAD 100	Introduction to Computer Aided Design AND	(3)
	Demonstrated Digital Literacy Competency	(0-3)
CAD 102	Drafting Fundamentals	4
CAD 112	Engineering Graphics	4
CAD 200	Intermediate Computer Aided Design	4
CAD 201	Parametric Modeling	4
CAD 298	Practicum OR	1-3

CAD 299	Cooperative Education	(1-3)
	Technical Electives	
	(Choose from the Technical Electives List)	22
	Subtotal	42-47
	Total Credits	60-65

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer /digital literacy course.

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

CAD 108	Introduction to Surveying	3
CAD 120	Introduction to Architecture	4
CAD 150	Programming in CAD	4
CAD 212	Industrial Drafting Processes	4
CAD 216	Building Information Modeling	4
CAD 222	Mechanical Design	4
CAD 220	Architectural Design	4
CAD 230	Construction Techniques	4
CAD 240	Advanced Dimensioning and Measurement	4
CAD 252	Commercial Detailing	4
CAD 262	Working Drawings	4
CAD 292	Industrial Applications	4
CAD 293	Special Problems	1-4
DPT 100	Introduction to 3D Printing Technology	3

Diploma

Computer Aided Drafting and Design - 1513014049

(Offered at ASC, BLC, BSC, ELC, HZC, HPC, JFC, MYC, SEC, WKC)
Available Completely Online

General Education:

Area 1:	Written Communication, Oral Communications or Humanities/Heritage	3
Area 2:	Quantitative Reasoning (MAT 105 excluded)	3
	Subtotal	6

Technical Core:

CAD 103	CAD Fundamentals (Digital Literacy Course) OR	4
CAD 100	Introduction to Computer Aided Design AND	(3)
	Demonstrated Digital Literacy Competency	(0-3)
CAD 102	Drafting Fundamentals	4
CAD 112	Engineering Graphics	4
CAD 200	Intermediate Computer Aided Design	4
CAD 201	Parametric Modeling	4
CAD 298	Practicum OR	1-3
CAD 299	Cooperative Education	(1-3)
	Technical Electives	
	(Choose from the Technical Electives List)	22
	Subtotal	42-47
	Total Credit	48-53

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer /digital literacy course.

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

CAD 108	Introduction to Surveying	3
CAD 120	Introduction to Architecture	4
CAD 130	Descriptive Geometry	4
CAD 150	Programming in CAD	4
CAD 212	Industrial Drafting Processes	4
CAD 216	Building Information Modeling	4
CAD 222	Mechanical Design	4
CAD 220	Architectural Design	4
CAD 230	Construction Techniques	4
CAD 240	Advanced Dimensioning and Measurement	4
CAD 252	Commercial Detailing	4

CAD 262	Working Drawings	4
CAD 292	Industrial Applications	4
CAD 293	Special Problems	1-4
DPT 100	Introduction to 3D Printing Technology	3

Certificates

Computer Assisted Drafter - 1513013059

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC)
Available Completely Online

General Education:

Written Communication, Oral Communications, or Humanities/Heritage	3
Quantitative Reasoning (MAT 105 excluded)	3
Subtotal	6

Technical Core:

CAD 103	CAD Fundamentals (Digital Literacy Course)	4
CAD 102	Drafting Fundamentals	4
CAD 112	Engineering Graphics	4
CAD 200	Intermediate Computer Aided Design	4
CAD 201	Parametric Modeling	4
	Technical Elective	4
	Subtotal	24
	Total Credits	30

Detailer - 1513013089

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, SEC, WKC)
Available Completely Online

General Education:

Written Communication, Oral Communications, or Humanities/Heritage	3
Quantitative Reasoning (MAT 105 excluded)	3
Subtotal	6

Technical Core:

CAD 103	CAD Fundamentals (Digital Literacy Course)	4
CAD 102	Drafting Fundamentals	4
CAD 112	Engineering Graphics	4
CAD 200	Intermediate Computer Aided Design	4
	Technical Elective	4
	Subtotal	20
	Total Credits	26

Drafter Assistant - 1513013079

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC)
Available Completely Online

General Education:

Written Communication, Oral Communications, or Humanities/Heritage	3
Quantitative Reasoning (MAT 105 excluded)	3
Subtotal	6

CAD 103	CAD Fundamentals (Digital Literacy Course)	4
CAD 102	Drafting Fundamentals OR	4
CAD 112	Engineering Graphics	(4)
	Subtotal	8
	Total Credits	14

Civil Drafter - 1513013049

(Offered at ASC, BLC, BSC, HZC, SEC)

General Education:

Quantitative Reasoning (MAT 105 excluded)	3
Subtotal	3

Technical Core:

CAD 103	CAD Fundamentals (Digital Literacy Course)	4
CAD 102	Drafting Fundamentals	4
CAD 112	Engineering Graphics	4
	Subtotal	12

Surveying Core:

Choose 9-12 hours from the following courses:

CAD 108	Introduction to Surveying	3
CAD 130	Descriptive Geometry	4
SMT 110	Principles of Surveying	3
SMT 130	Land Surveying Graphics	3
SMT 160	Construction Surveying	3
SMT 210	Advanced Surveying Measurement	3
SMT 220	Surveying Lab	3
SMT 230	Land Boundary Location	3
SMT 250	Mine Surveying	3
	Subtotal	9-12
	Total Credits	24-27

3D Modeler – 1513013099

(Offered at BLC, ELC, HPC, HZC, JFC, SEC, WKC)

CAD 100	Introduction to Computer Aided Design OR.....	3
CAD 103	CAD Fundamentals	(4)
CAD 200	Intermediate CAD.....	4
CAD 201	Parametric Modeling.....	4
	Technical Electives.....	5-7
	Total Credits	16-19

Computer & Information Technologies

With tracks in Business Software and Support, Data Center Technologies, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Networking Technologies, Programming, and Video Game Design.

This program includes tracks in Business Software and Support, Data Center Technologies, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Network Technologies, Programming, and Video Game Design, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

-Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.

-The Computer & Information Technologies department does not accept non-Gen Ed courses older than 5 years from returning or transfer students without consent from the local program coordinator.

-Students may not use one course to fulfill multiple requirements.

The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geograph-

ic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages

Computer Applications Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.

Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

Geospatial Technologies Track (GST), is a rapidly growing and evolving field which enables users of location based data the ability to make informed decisions, utilizing a large array of sensors and demographics. GST utilizes both time and place as analysis factors and is recognized by the U.S. Department of Labor (DoL) as a high growth, high wage, green industry with a bright outlook. The curriculum is based upon national standards, including DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

The Informatics Track prepares students interested in an advanced study of database design/management and computer programming. The curriculum may also be used to prepare students for entry into bachelor level programs in computer science and informatics.

The Information Security track will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

The Internet Technologies track prepares students to design, program, and maintain Internet-based services. With specializations in web programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

The Network Administration track provides the concepts and skills needed to design, set-up, maintain and expand network and telecommunications systems. The curriculum provides specific training in Cisco, and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organizations, and computer network administration positions in small businesses.

The Network Technologies track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small business.

The Programming track prepares students to design, develop, and maintain computer programs written in current and emerging programming

languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

Information Systems - This track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

Software Development - This track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Computer Science track prepares students interested in an advanced study of computer programming. The curriculum couples the study of programming with computer science concepts such as computational complexity, advanced data structures, and proof techniques. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science.

The **Video Game Design** track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

The Data Center Technologies track provides experience with Cloud computing areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The curriculum may be used to prepare students for entry level positions in organizations that manage and design data centers.

Computer Technician Certificate

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Productivity Software Specialist Certificate

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

Computer Support Technician Certificate

The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

Information Security Specialist Certificate

The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Network Administrator Certificate

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

CISCO Networking Associate Certificate

The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Network Technologies Specialist Certificate

The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating network technology competencies. This certificate consists of specialized networking classes that students need to effectively configure and maintain networks using network technologies specialist skills. In addition, this certificate will provide a way for professionals currently in the industry to update their network technologies specialist skills.

Net+ Prep Certificate

The Net+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Certificate prepares students for the CompTia Net+ exam which is recognized by the computer industry around the world.

Security + Prep Certificate

The Security+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Certificate prepares students for the CompTia Security+ exam which is recognized by the computer industry around the world.

CISCO Networking Enhanced Certificate

The CISCO Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

A+ Prep Certificate

The A+ Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Microsoft Enterprise Administrator Certificate

The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Programming Certificate

The Software Developer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

Web Programming Certificate

The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

Web Administration Certificate

The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintaining web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

Social Media Specialist Certificate

The Social Media Specialist Certificate prepares students for careers as social media analyst to leverage social media tools to increase business awareness and presence.

Digital Forensics Certificate

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate in basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

Mobile Apps Development Certificate

The Mobile Apps Development Certificate offers students the opportunity to earn a credential demonstrating mobile apps development competencies. This certificate consists of the core skills that students need to effectively develop mobile apps. It provides a way for professionals currently in the industry to update their mobile app development skills and for new students to show progress in the CIT program.

Video Game Design Certificate

The Video Game Design Certificate prepares students to design, develop, and market digital games and simulations.

Informatics Advanced Certificate

The Informatics Advanced Certificate builds on the Informatics Generalist Certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, will work with database programming and mining.

Informatics Generalist Certificate

The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

Informatics Programming Certificate

This certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Associate in Applied Science

Computer and Information Technologies - 1101017089

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education

ENG	101	Writing I	3
MAT	126	Technical Algebra and Trigonometry (or higher)	3
		Social and Behavioral Science Course	3
		Heritage or Humanities Course	3
		Natural Sciences Course	3
		Subtotal	15

Core Requirements

CIT	105	Introduction to Computers	3
CIT	111	Computer Hardware and Software	4
CIT	120	Computational Thinking	3
CIT	170	Database Design Fundamentals	3
CIT	180	Security Fundamentals	3
		Approved Level I Networking Course	4
		Approved Level I Programming Language Course	3
CIT	293	CIT Employability Studies	1
		Technical Core Subtotal	24

Business Software and Support Track – 110101717

(Offered at ASC, BLC, BSC, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, WKC)

CIT	130	Productivity Software	3
CIT	234	Advanced Productivity Software	3
CIT	236	Advanced Data Organization Software	3
		Approved Business OR Management Course	3
		Completion of a Business Software and Support Track Course Sequence in	
		Business Software Specialist OR	
		Computer Support OR	
		Software Support	9
		Track Subtotal	21
		Total	60

Business Software and Support Track Course Sequences:

Business Software Specialist

CIT	171	SQL I	3
		Approved CIT Technical Course	3
		Approved Business or Management Course	3
		Subtotal	9

Computer Support

CIT	232	Help Desk Operations	3
		Approved CIT Technical Course	3
		Approved CIT Technical Course	3
		Subtotal	9

Software Support

CIT	150	Internet Technologies OR	3
CIT	155	Web Page Development OR	(3)
CIT	157	Web Site Design and Production	(3)
CIT	253	Data-Driven Web Pages: Topic	3
ENG	102	Writing II OR	3
		Oral Communications Course	(3)
		Subtotal	9

Information Security Track - 110101712

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CIT	182	Perimeter Defense	3
CIT	184	Attacks and Exploits	3
CIT	217	UNIX/Linux Administration	3
		Approved Network Elective Course	6
		Approved Security Elective Course	3
		Approved CIT Technical Course(s)	3
		Track Subtotal	21
		Total	60

Internet Technologies Track - 110101710

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC)

Complete two of the following not taken in the program core:

CIT	150	Internet Technologies	3
CIT	155	Web page Development	3
CIT	157	Web Site Design and Production	3
		Subtotal	6
CIT	257	Applied Internet Technologies OR	3
CIT	258	Internet Technologies Seminar	(3)
		Completion of an Internet Technologies Track Course Sequence in:	
		Web Programming OR	
		Web Administration	12
		Track Subtotal	21
		Total	60

*Internet Technologies Track Course Sequences:

Web Programming Course Sequence:

		Approved Level I Web Programming Language Course	3
		Approved Level II Web Programming Language Course	3
CIT	171	SQL I	3
CIT	253	Data Driven Web Pages: Topic	3
		Sequence Subtotal	12

Web Administration Course Sequence:

CIT	219	Internet Protocols	3
CIT	255	Web Server Administration	3
CIT	214	Microsoft Server Configuration AND	3
CIT	215	Microsoft Server Administration	3
		OR	
CIT	214	Microsoft Server Configuration AND	(3)
CIT	216	Microsoft Server Advanced Services	(3)
		OR	
CIT	217	UNIX/Linux Administration AND	(3)
CIT	218	UNIX/Linux Net Infrastructure	(3)
		Sequence Subtotal	12

Network Administration Track - 110101708

(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Network Administration Track Course Sequence	12
Sequence in:	
Microsoft Windows Administration	
Cisco Network Associate	
Approved CIT Technical Courses	9-12
Track Subtotal	21-24
Total	60-63

Network Administration Track Course Sequences:

Microsoft Windows Administration Course Sequence

CIT 213	Microsoft Client Configuration	3
CIT 214	Microsoft Server Configuration	3
CIT 215	Microsoft Server Administration	3
CIT 216	Microsoft Server Advanced Series	3
Subtotal		12

Cisco Networking Associate Course Sequence

CIT 167	Routing & Switching Essentials	4
CIT 209	Scaling Networks	4
CIT 212	Connecting Networks	4
Subtotal		12

Network Technologies Track - 110101713

(Offered at ASC, BLC, HEC, MDC, MYC, OWC)

CIT 219	Internet Protocols	3
CIT 288	Network Security	3
	Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform:	15
Track Subtotal		21
Total		60-63

Approved Network Technologies Course Sequences *

Microsoft Platform

CIT 213	Microsoft Client Configuration	(3)
CIT 214	Microsoft Server Configuration	(3)
CIT 215	Microsoft Server Administration	(3)
CIT 216	Microsoft Server Advanced Series	(3)
	Other Microsoft networking courses as approved by local Program coordinator	

UNIX/Linux Platform

CIT 217	UNIX/Linux Administration AND	(3)
CIT 218	UNIX/Linux Net Infrastructure	(3)
CIT 255	Web Server Administration	(3)

Cisco Platform

CIT 167	Routing & Switching Essentials	(4)
CIT 209	Scaling Networks	(4)
CIT 212	Connecting Networks	(4)

Data Center Platform

CIT 201	Information Storage Management	(3)
CIT 203	Introduction to Virtualization	(3)
CIT 204	VMWare Optimize and Scale	(3)
CIT 205	Cloud Infrastructure and Services	(3)

Programming Track - 110101709

(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Approved Level II Programming Language	3
Approved Level I, II, or III Programming Language	3
Approved CIT Technical Course(s)	3
Completion of a Programming Track Course Sequence in: ..	12
Information Systems OR	
Programming Software Development	
Track Subtotal	21
Total	60

Programming Track Course Sequences:

Information Systems

CIT 171	SQL I	3
	Approved CIT Technical Courses	3
	Approved Management or Business Course	3
	Approved Business Course	3
Sequence Subtotal		12

Programming Software Development

	Approved Level I Programming Language	3
	Approved Level II Programming Language	3
CIT 150	Internet Technologies OR	3
CIT 155	Web Page Development OR	(3)
CIT 157	Web Site Design and Production	(3)
CIT 253	Data-Driven Web Pages: Topic	3
Sequence Subtotal		12

Video Game Design Track - 110101715

(Offered at BLC, HEC, HZC, MYC, MDC)

CIT/IMD 124	Introduction to Game Development	3
CIT/IMD 274	Seminar in Game Development	3
CIT/IMD 221	Computer Graphics AND	3
CIT/IMD 222	3D Modelling AND	3
CIT/IMD 223	3D Animation AND	3
CIT/IMD 273	Game Production AND	3
	Video Game Design Elective	3
Track Subtotal		21
Total		60

Data Center Technologies Track – 110101716

(Offered at BLC, JFC, WKY)

CIT 167	Routing and Switching Essentials	4
CIT 201	Information Storage Management	3
CIT 214	Microsoft Server Configuration	3
CIT 217	Unix/Linux Administration	3
CIT 203	Introduction to Virtualization	3
CIT 204	VMware Optimize and Scale	3
CIT 205	Cloud Infrastructure and Services	3
Track Subtotal		22
Total		61

Geospatial Technologies Track– 110101718

(Offered at)

CIT 125	Introduction to Digital Maps	3
CIT 225	GIS Software Tools	3
GIS 145	Remote Sensing	3
GIS 255	Geospatial Programming	3
GIS 260	GIS Web Mapping	3
CIT 229	Selected Topics in GIS	3
CIT 290	Internship	3
Track Subtotal		21
Total		60

Informatics Track – 110101719

(Offered at)

ENG	102	Writing II	3
		Oral Communications Course	3
CIT	150	Internet Technologies OR	3
CIT	155	Web Page Development OR.....	(3)
CIT	157	Web Site Design and Production.....	(3)
CIT	249	Java II OR	3
INF	260	Object-Oriented Programming I.....	(3)
		Completion of an Informatics Track Course Sequence In:	
		Business OR	
		Data Science OR	
		Informatics Programming.....	9-11
		Track Subtotal	21-23
		Total	60-62

Informatics Track Course Sequences:

Business:

IFM	111	Client-Side Informatics Software	3
IFM	128	Principles of Informatics OR	3
INF	128	Principles of Informatics	(3)
IFM	211	Collaborative Software OR	3
IFM	225	Advanced Informatics OR.....	(3)
ACC	201	Financial Accounting OR	(3)
ACC	202	Managerial Accounting OR	(3)
ECO	201	Principles of Microeconomics OR.....	(3)
ECO	202	Principles of Macroeconomics	(3)
		Subtotal	9

Data Science:

MAT	155	Trigonometry	3
MAT	174	Calculus I OR	4
MA	113	Calculus I.....	(4)
CS	275	Discrete Math OR	4
STA	210	Statistics: A Force in Human Judgement OR	(3)
STA	220	Statistics OR.....	(3)
STA	296	Statistical Methods and Motivations	(3)

Informatics Programming:

CIT	253	Data-Driven Web Pages.....	3
CS	215	Introduction to Program Design, Abstraction, and Problem Solving OR	4
CIT	242	C++II OR	(3)
CIT	243	C#II.....	(3)
CS	216	Introduction to Software Engineering OR	3
STA	210	Statistics: A Force in Human Judgement OR	(3)
STA	220	Statistics	(3)
		Sequence Subtotal	10

Course Choice Lists

Approved Business Courses*

ACC	201	Financial Accounting I	3
ACT	101	Fundamentals of Accounting.....	3
BAS	160	Introduction to Business.....	3
IFM	111	Client-Side Informatics Software	3
IFM	128	Principles of Informatics	3
IFM	211	Collaboration Software	3
IFM	225	Advanced Informatics.....	3
		Any business or informatics course approved by Program Coordinator	3

Approved Management Courses*

BAS	200	Small Business Management	3
BAS	274	Human Resource Management.....	3
BAS	283	Principles of Management	3
BAS	287	Supervisory Management	3
BAS	288	Personal and Organizational Leadership.....	3
MFG	256	Production Management	3
OST	275	Office Management	3

QMS	101	Introduction to Quality Systems	3
QMS	201	Customer Service Improvement Skills	3
		Any management course approved by Program Coordinator ..	3

Approved Level I Networking Courses*

CIT	160	Intro to Networking Concepts	4
CIT	161	Introduction to Networks.....	4

Approved Network Elective Courses*

CIT	167	Routing & Switching Essentials	4
CIT	209	Scaling Networks	4
CIT	212	Connecting the Networks.....	4
CIT	214	Microsoft Server Configuration	3
CIT	215	Microsoft Server Administration	3
CIT	216	Microsoft Server Advanced Services	3
CIT	218	UNIX/Linux Net Infrastructure.....	3
CIT	219	Internet Protocols	3
CIT	260	Network Hardware Installation and Troubleshooting.....	3
CIT	263	Advanced Microsoft Topics.....	3
		Or other Microsoft networking courses as approved by the CIT Program Coordinator	3

Approved Security Elective Courses*

CIT	284	Computer Forensics.....	3
CIT	285	Windows OS Security	3
CIT	286	UNIX/Linux OS Security.....	3
CIT	287	Cisco OS Security	3
CIT	288	Network Security.....	3

Approved Level I Programming Language Courses*

CIT	140	JavaScript I.....	3
CIT	141	PHP I	3
CIT	142	C++ I	3
CIT	143	C# I.....	3
CIT	144	Python I	3
CIT	145	Perl I	3
CIT	146	Swift I.....	3
CIT	147	Programming I: Language	3
CIT	148	Visual Basic I.....	3
CIT	149	Java I	3
CIT	171	SQL I	3
		University Level I programming language as approved by local Program Coordinator	3-4

Approved Level II Programming Language Courses*

CIT	237	iOS Programming	3
CIT	238	Android Programming.....	3
CIT	241	PHP II	3
CIT	242	C++ II	3
CIT	243	C# II.....	3
CIT	244	Python II	3
CIT	247	Programming II: Language	3
CIT	248	Visual Basic II.....	3
CIT	249	Java II	3
CIT	271	SQL II.....	3
		University Level II programming language as approved by local Program Coordinator	3-4

Approved Level III Programming Language Courses*

CIT	277	Programming III: Language	3
CIT	278	Visual Basic III.....	3
		University Level III programming language as approved by local Program Coordinator	3-4

Approved Level I Web Programming Language Courses*

CIT	141	PHP I	3
CIT	144	Python I	3
CIT	148	Visual Basic I.....	3
CIT	149	Java I	3

Approved Level II Web Programming Language Courses*

CIT	241	PHP II	3
CIT	244	Python II	3
CIT	248	Visual Basic II.....	3
CIT	249	Java II	3

Approved Social Media Courses*

CIT 151	Social Media I	3
CIT 152	Social Media Tools and Technologies	3
CIT 251	Social Media II	3

Approved Video Game Design Electives*

CIT 238	Android Programming	3
	Approved Level II Programming Language	3

Approved CIT Technical Courses*

Additional CIT Course(s)	3
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*Or other courses approved by Computer & Information Technologies Program Coordinator

Note: Students may not use one course to fulfill multiple requirements.

Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

Certificates

Computer Technician - 1101013289

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CIT 105	Introduction to Computing	3
CIT 111	Computer Hardware and Software	4
	Approved Level I Networking Course	4
CIT 180	Security Fundamentals	3
Total		14

CIT Fundamentals - 1101013309

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CIT 105	Introduction to Computing	3
CIT 111	Computer Hardware and Software	4
CIT 120	Computational Thinking	3
CIT 170	Database Design Fundamentals	3
CIT 180	Security Fundamentals	3
	Approved Level I Networking Course	4
	Approved Level I Programming Language	3
Total		23

Productivity Software Specialist - 1101013299

(Offered at ASC, BLC, BSC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

CIT 105	Introduction to Computing	3
CIT 130	Productivity Software	3
CIT 234	Advanced Productivity Software	3
CIT 236	Adv. Data Organization Software	3
Total		12

Computer Tech Basic - 1101013319

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CIT 105	Introduction to Computers	3
CIT 111	Computer Hardware and Software	4
	Approved Level I Networking Course	4
Total		11

Computer Support Technician - 1101013329

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

CIT 130	Productivity Software	3
CIT 111	Computer Hardware and Software	4
CIT 232	Help Desk Operations	3
CIT 234	Advanced Productivity Software	3
CIT 236	Advanced Data Organization Software	3
Total		16

Information Security Specialist - 1101013339

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

	Approved Level I Networking Course	4
CIT 180	Security Fundamentals	3
CIT 182	Perimeter Defense	3
CIT 184	Attacks and Exploits	3
	Approved Security/Network Elective Courses	6
Total		19

Microsoft Network Administrator - 1101013349

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

	Approved Level I Networking Course	4
CIT 213	Microsoft Client Configuration	3
CIT 214	Microsoft Server Configuration	3
CIT 215	Microsoft Server Administration	3
CIT 216	Microsoft Server Advanced Services	3
	Approved CIT Technical Course	3
Total		19

CISCO Networking Associate - 1101013359

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, WKC)

CIT 161	Introduction to Networks	4
CIT 167	Routing and Switching Essentials	4
CIT 209	Scaling Networks	4
CIT 212	Connecting Networks	4
Total		16

Network Technologies Specialist - 1101013369

(Offered at ASC, BLC, BSC, HEC, HPC, HZC, MDC, MYC, OWC, SEC)

CIT 219	Internet Protocols	3
CIT 288	Network Security	3
	Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform.	15
Total		21

Microsoft Platform

CIT 213	Microsoft Client Configuration	(3)
CIT 214	Microsoft Server Configuration	(3)
CIT 215	Microsoft Server Administration	(3)
CIT 216	Microsoft Server Advanced Services	(3)
	Other Microsoft networking courses as approved by local Program coordinator	

UNIX/Linux Platform

CIT 217	UNIX/Linux Administration	(3)
CIT 218	UNIX/Linux Net Infrastructure	(3)
CIT 255	Web Server Administration	(3)

Cisco Platform

CIT 167	Routing & Switching Essentials	(4)
CIT 209	Scaling Networks	(4)
CIT 212	Connecting Networks	(4)

Data Center Platform

CIT 201	Information Storage Management	(3)
CIT 203	Introduction to Virtualization	(3)
CIT 204	VMWare Optimize and Scale	(3)
CIT 205	Cloud Infrastructure and Services	(3)

CISCO Networking Enhanced - 1101013379

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, SEC, SKY, SMC, WKC)

CIT	161	Introduction to Networks	4
CIT	167	Routing and Switching Essentials	4
CIT	209	Scaling Networks	4
CIT	212	Connecting Networks	4
		Approved CIT Technical Courses	8-9
		Total	24-25

A+ Prep - 1101013529

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

CIT	111	Computer Hardware and Software	4
		Total	4

Net+ Prep - 1101013539

(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

CIT	160	Intro to Networking Concepts	4
		Total	4

Security+ Prep - 1101013549

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

CIT	180	Security Fundamentals	3
		Total	3

Microsoft Enterprise Administrator - 1101013419

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

		Approved Level I Networking Course	4
CIT	213	Microsoft Client Configuration	3
CIT	214	Microsoft Server Configuration	3
CIT	215	Microsoft Server Administration	3
CIT	216	Microsoft Server Advanced Services	3
		Additional Microsoft course as approved by CIT Program	
		Coordinator	3
		Approved CIT Technical Course	3
		Total	22

Programming – 1101013429

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

CIT	120	Computational Thinking	3
		Approved Level I Programming Language	3
		Approved Level II Programming Language	3
		Approved Level I, II, or III Programming Language	3
		Total	12

Web Programming - 1101013439

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

CIT	120	Computational Thinking	3
CIT	150	Internet Technologies	3
CIT	155	Web Page Development	3
CIT	157	Web Site Design and Production	3
CIT	171	SQL I	3
CIT	253	Data-Driven Web Pages: Topic	3
		Approved Level I Web Programming Language	3
		Approved Level II Web Programming Language	3
		Total	24

Web Administration - 1101013449

(Offered at ASC, BLC, BSC, ELC, HZC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)

CIT	120	Computational Thinking	3
CIT	150	Internet Technologies	3
CIT	155	Web Page Development	3
CIT	157	Web Site Design and Production	3
CIT	219	Internet Protocols	3
CIT	253	Data-Driven Web Pages: Topic	3
CIT	255	Web Server Administration	3
CIT	213	Microsoft Client Configuration AND	3
CIT	215	Microsoft Server Administration	3
		OR	
CIT	213	Microsoft Client Configuration AND	(3)
CIT	216	Microsoft Server Advanced Services	(3)
		OR	
CIT	217	UNIX/Linux Administration AND	(3)
CIT	218	UNIX/Linux Net Infrastructure	(3)
		Total	27

Social Media Specialist – 1101013469

(Offered at ASC, BSC, HZC, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SMC)

CIT	105	Introduction to Computers OR demonstrated competency 0-3	
CIT	155	Web Page Development	3
CIT	151	Social Media I	3
CIT	152	Social Media Tools and Technologies	3
CIT	251	Social Media II	3
BAS	160	Introduction to Business	3
BAS	282	Introduction to Marketing	3
		Total	18-21

Digital Forensics – 1101013459

(Offered at ASC, BSC, HZC, HEC, JFC, MDC, OWC, SKY, SEC, SMC, WKC)

CIT	105	Introduction to Computers	3
CIT	111	Hardware and Software	4
CIT	160	Intro to Networking Concepts OR	4
CIT	161	Introduction to Networks	(4)
CRJ	204	Criminal Investigations	3
CIT	180	Security Fundamentals	3
CIT	284	Computer Forensics	3
		Total	20

Mobile Apps Development – 1101013559

(Offered at BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SKY, SEC, SMC)

CIT	105	Introduction to Computers	3
CIT	120	Computational Thinking	3
		Sequence 1:	
CIT	149	Java I	3
CIT	238	Android Programming	3
		Sequence 2:	
CIT	146	Swift I	3
CIT	237	iOS Programming	3
		Total	18

Informatics Advanced – 1101013509

(Offered at)

CIT	149	Java I OR	3
INF	120	Elementary Programming	(3)
IFM	211	Collaboration Software	3
IFM	225	Advanced Informatics	3
		Total	9

Informatics Generalist – 1101013499

(Offered at)

CIT	105	Introduction to Computers	3
CIT	120	Computational Thinking	3
CIT	130	Productivity Software	3
CIT	170	Database Design Fundamentals OR	3
INF	282	Introduction to Databases	(3)
IFM	215	Information Systems Analysis	3
Total			15

Informatics Programming – 1101013489

(Offered at BLC, BSC, HEC, HZC, JFC, SMC)

CIT	120	Computational Thinking	3
CIT	170	Database Design Fundamentals OR	(3)
INF	282	Introduction to Databases	3
		Informatics Programming Language Pair	6-7

Informatics Programming Language Pairs

INF	120	Elementary Programming AND	3
INF	260	Object Oriented Programming I	3
		OR	
CIT	149	Java I AND	(3)
CIT	249	Java II	(3)
		OR	
CS	115	Intro to Computer Programming AND	(3)
CS	215	Intro Program Design, Instruction, and Problem Solving ...	(4)
		OR	
CIT	142	C++ I AND	(3)
CIT	242	C++ II	(3)
		OR	
CIT	148	Visual Basic I AND	(3)
CIT	248	Visual Basic II	(3)
		OR	
CIT	143	C# I AND	(3)
CIT	243	C# II	(3)
Total			12-13

Video Game Design - 1101013519

(Offered at)

CIT	105	Introduction to Computing	3
CIT	120	Computational Thinking	3
		Approved Level I Web Programming Language	3
CIT/IMD	124	Introduction to Game Development	3
CIT/IMD	221	Computer Graphics	3
CIT/IMD	222	3D Modeling for Video Games	3
CIT/IMD	223	Computer Animation	3
CIT/IMD	273	Game Production	3
CIT/IMD	274	Seminar in Game Development	3
		Video Game Design Elective	3
Total			30

Computerized Manufacturing and Machining

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finish products are taught by classroom instruction, demonstration, and hands on experience.

Students enrolled in the Computerized Manufacturing & Machining program must achieve a minimum grade of “C” in each technical course

Associate in Applied Science

Computerized Manufacturing & Machining - 4805037019

(Offered at BLC, BSC, ELC, MDC, MYC, OWC, SKY, WKC)

General Education:

ENG	101	Writing I	3
MAT	116	Technical Mathematics OR	3
MAT	126	Technical Algebra and Trigonometry or Higher	(3)
		Heritage/Humanities	3
		Natural Sciences	3
		Social/Behavioral Sciences	3
Subtotal:			15
		Electives (Co-op or Practicum)	1
Subtotal:			1

Technical:

		Digital Literacy*	0-3
CMM	110	Fundamentals of Machine Tools A AND	3
CMM	112	Fundamentals of Machine Tools B OR	3
CMM	114	Fundamentals of Machine Tools	(6)
CMM	118	Metrology/Control Charts	2
CMM	120	Applied Machining I AND	3
CMM	122	Applied Machining II OR	3
CMM	124	Applied Machining	(6)
CMM	130	Manual Programming AND	3
CMM	132	CAD/CAM/CNC OR	3
CMM	134	Manual Programming/CAD/CAM/CNC OR	(6)
CMM	138	Intro to Programming & CNC Machines	(6)
CMM	210	Industrial Machining I AND	3
CMM	212	Industrial Machining II OR	3
CMM	214	Industrial Machining	(6)
CMM	220	Advanced Industrial Machining I AND	4
CMM	222	Advanced Industrial Machining II OR	2
CMM	224	Advanced Industrial Machining	(6)
CMM	2301	Intro to Conversational Programming AND	3
CMM	2302	Conversational Editing and Subroutines OR	3
CMM	230	Conversational Programming OR	(6)
CMM	234	CNC Machines and Coding Practices	(6)
CMM	2401	Intro to 3-D Code Sequencing and Tool path Production AND	3
CMM	2402	Advanced 3-D Code Sequencing and Macro Systems OR	3
CMM	240	Intro to 3-D Programming OR	(6)
CMM	244	Advanced Programming/Setup Practices	(6)
BRX	110	Basic Blueprint Reading for Machinist AND	2
BRX	210	Mechanical Blueprint Reading for Machinist OR	2
BRX	112	Blueprint Reading for Machinist	(4)
Subtotal			48-51

Total Credits

64-67

* Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Diploma

CNC Machinist - 4805034069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1:

Written Communication, Oral Communications, or Heritage/Humanities

Area 2:

Social/Behavioral Science, Natural Science or Quantitative Reasoning

Electives (Co-op or Practicum)

Technical:

	Digital Literacy*.....	0-3
CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B OR	3
CMM 114	Fundamentals of Machine Tools	(6)
CMM 118	Metrology/ Control Charts	2
CMM 120	Applied Machining I AND.....	3
CMM 122	Applied Machining II OR	3
CMM 124	Applied Machining	(6)
CMM 130	Manual Programming AND.....	3
CMM 132	CAD/CAM/CNC OR	3
CMM 134	Manual Programming/ CAD/ CAM/ CNC OR.....	(6)
CMM 138	Intro to Programming & CNC Machines	(6)
CMM 210	Industrial Machining I AND	3
CMM 212	Industrial Machining II OR	3
CMM 214	Industrial Machining	(6)
CMM 220	Advanced Industrial Machining I AND.....	4
CMM 222	Advanced Industrial Machining II OR.....	2
CMM 224	Advanced Industrial Machining	(6)
CMM 2301	Intro to Conversational Programming AND	3
CMM 2302	Conversational Editing and Subroutines OR.....	3
CMM 230	Conversational Programming OR	(6)
CMM 234	CNC Machines and Coding Practices	(6)
CMM 2401	Intro to 3-D Code Sequencing and Tool path Production AND.....	3
CMM 2402	Advanced 3-D Code Sequencing and Macro Systems OR	3
CMM 240	Intro to 3-D Programming OR	(6)
CMM 244	Advanced Programming/Setup Practices	(6)
BRX 110	Basic Blueprint Reading for Machinist AND	2
BRX 210	Mechanical Blueprint Reading for Machinist OR	2
BRX 112	Blueprint Reading for Machinist	(4)
	Subtotal:	48-51
	Total Credits:	55-58

Machinist - 4805034079

(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MYC, OWC, SEC, SMC, WKC)

General Education:

Area 1:

Written Communication, Oral Communications, or Heritage/Humanities	3
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Area 2:

Social/Behavioral Science, Natural Science or Quantitative Reasoning	3
Subtotal	6
Electives (Co-op or Practicum)	1
Subtotal:	1

Technical:

	Digital Literacy*.....	0-3
CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B OR	3
CMM 114	Fundamentals of Machine Tools	(6)
CMM 118	Metrology/ Control Charts	2
CMM 120	Applied Machining I AND.....	3
CMM 122	Applied Machining II OR	3
CMM 124	Applied Machining	(6)
CMM 130	Manual Programming AND.....	3
CMM 132	CAD/CAM/CNC OR.....	3
CMM 134	Manual Programming/ CAD/ CAM/ CNC OR.....	(6)
CMM 138	Intro to Programming & CNC Machines	(6)
CMM 210	Industrial Machining I AND	3
CMM 212	Industrial Machining II OR	3
CMM 214	Industrial Machining	(6)
CMM 220	Advanced Industrial Machining I AND.....	4
CMM 222	Advanced Industrial Machining II OR.....	2
CMM 224	Advanced Industrial Machining	(6)

BRX 110	Basic Blueprint Reading for Machinist AND	2
BRX 210	Mechanical Blueprint Reading for Machinist OR	2
BRX 112	Blueprint Reading for Machinist	(4)
	Subtotal:	36-39
	Total Credits:	43-46

Certificates

Exploratory Machining I - 4805033199

(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B AND.....	3
	Electives (Technical or Gen Ed) OR.....	5
CMM 114	Fundamentals of Machine Tools AND	(6)
	Electives (Technical or Gen Ed) OR.....	(5)
CMM 130	Manual Programming AND.....	(3)
CMM 132	CAD/ CAM/ CNC AND	(3)
	Elective (Technical or Gen Ed) OR.....	(6)
CMM 134	Manual Programming/ CAD/ CAM/ CNC AND.....	(6)
	Elective (Technical or Gen Ed) OR.....	(6)
CMM 138	Intro to Programming & CNC Machines AND.....	(6)
	Elective (Technical or Gen Ed).....	(6)
	Total Credits	11-12

Machine Tool Operator I - 4805033109

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B OR	3
CMM 114	Fundamentals of Machine Tools	(6)
CMM 130	Manual Programming AND.....	3
CMM 132	CAD/ CAM/ CNC OR.....	3
CMM 134	Manual Programming CAD/ CAM/ CNC OR.....	(6)
CMM 138	Intro to Programming & CNC Machines	(6)
BRX 110	Basic Blueprint Reading for Machinist OR.....	2
BRX 112	Blueprint Reading for Machinist	(4)
	Social/Behavioral Science, Natural Science, or Quantitative Reasoning	3
	Total Credits:	17-19

Machine Tool Operator II - 4805033119

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B OR	3
CMM 114	Fundamentals of Machine Tools	(6)
CMM 118	Metrology/ Control Charts	2
CMM 120	Applied Machining I AND.....	3
CMM 122	Applied Machining II OR	3
CMM 124	Applied Machining	(6)
CMM 130	Manual Programming AND.....	3
CMM 132	CAD/ CAM/ CNC OR.....	3
CMM 134	Manual Programming CAD/ CAM/ CNC OR.....	(6)
CMM 138	Intro to Programming & CNC Machines	(6)
BRX 110	Basic Blueprint Reading for Machinist OR.....	2
BRX 112	Blueprint Reading for Machinist	(4)
	Digital Literacy*	0-3
	Social/Behavioral Science, Natural Science, or Quantitative Reasoning	3
	Total Credits	25-30

CNC Operator - 4805033129

(Offered at BLC, HPC, JFC, SEC, SMC, WKC)

CMM 110	Fundamentals of Machine Tools A AND.....	3
CMM 112	Fundamentals of Machine Tools B OR	3
CMM 114	Fundamentals of Machine Tools	(6)
CMM 118	Metrology/Control Charts	2
CMM 130	Manual Programming AND.....	3
CMM 132	CAD/CAM/CNC OR	3
CMM 134	Manual Programming CAD/CAM/CNC OR.....	(6)
CMM 138	Intro to Programming & CNC Machines.....	(6)
CMM 2301	Intro to Conversational Programming AND	3
CMM 2302	Conversational Editing and Subroutines OR.....	3
CMM 230	Conversational Programming OR	(6)
CMM 234	CNC Machines and Coding Practices	(6)
BRX 110	Basic Blueprint Reading for Machinist OR.....	2
BRX 112	Blueprint Reading for Machinist	(4)
	Computer/Digital Literacy*	0-3
MAT 116	Technical Mathematics or	3
MAT 126	Technical Algebra and Trigonometry or Higher	(3)
	Total Credits	25-30

Tool & Die Apprentice - 4805033130

(Offered at BLC, JFC, SEC)

CMM 150	Shop Theory OR	2
CMM 110	Fundamentals of Machine Tools A.....	(3)
CMM 118	Metrology/Control Charts	2
CMM 151	Machinery's Handbook/Metallurgy OR.....	3
CMM 112	Fundamentals of Machine Tools B.....	(4)
CMM 152	Jigs, Fixtures and Gaging OR.....	3
CMM 120	Applied Machining I.....	(3)
CMM 153	Mold Theory.....	3
CMM 154	Die Theory.....	3
CMM 130	Manual Programming.....	3
CMM 132	CAD/CAM/CNC.....	3
BRX 110	Basic Blueprint Reading for Machinist	2
BRX 210	Mechanical Blueprint Reading.....	2
MAT 116	Technical Mathematics	3
WLD 151	Basic Welding A OR	2
	Computer/Digital Literacy* OR	(0-3)
IEX 295	Special Problems III	(3)
	Total Credits	29-34

CNC Machining & Waterjet Technology - 4805033189

(Offered at BLC, SEC)

CMM 138	Intro to Programming and CNC Machines.....	6
CMM 234	CNC Machines & Coding Practices	6
CMM 244	Advance Programming/Setup Practices	6
	Total Credits	18

* Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course

Construction Technology

The Construction Technology program is designed to prepare students for entry level positions in the construction industry. Residential and light commercial construction applications are taught. This program includes instructional units in blueprint reading, building site layout procedures, foundation systems, light framing construction methods, exterior and interior finish systems, concrete forming systems and construction safety. Units of instruction are designed to include lecture and practical experience in the lab or on-site projects. This program also offers an excellent prerequisite for students that plan to pursue a career in areas such as construction management, civil engineering or architectural design.

The Green Building Technology certificate familiarizes students with the principles of green building technologies and methods of sustainable construction. Emphasis is placed on green materials used in the construction of buildings along with alternative and/or renewable energy systems. Covers both Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard's rating systems for the certification process of green buildings.

Progression in the Construction Technology Program is contingent upon achievement of a grade of "C" or better in each technical and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Construction Technology - 4602017029

(Offered at BLC, ELC)

General Education Requirements:

	Written Communication.....	3
MAT 105	Business Mathematics OR	
	Higher level Quantitative Reasoning course	3
	Social/Behavioral Sciences	3
	Heritage/Humanities	3
	Natural Sciences	3
	Oral Communications	3
	Subtotal	18

Technical Requirements:

	Digital Literacy or demonstrated competency	0-3
BRX 220	Blueprint Reading For Construction	3
CAR 126	Intro to Construction	3
CAR 127	Intro to Construction-Lab	1
CAR 140	Surveying & Foundations	3
CAR 141	Surveying & Foundations-Lab	2
CAR 190	Light Frame Construction I.....	3
CAR 191	Light Frame Const. I-Lab	2
CAR 196	Light Frame Construction II.....	3
CAR 197	Light Frame Const. II-Lab.....	2
CAR 200	Light Frame Construction III.....	3
CAR 201	Light Frame Const. III-Lab.....	2
CAR 298	Practicum in Construction OR.....	2
CAR 299	Co-op in Construction.....	(2-4)
ISX 100	Industrial Safety	3
	Technical Electives*	10
	Subtotal	42-47
	Total	60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

***Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)**

BRX 120	Basic Blueprint Reading	3
CAR 150	Construction Formwork	3
CAR 151	Construction Formwork - Lab	2
CAR 198	Special Topics in Construction.....	1 - 6
CAR 240	Light Frame Construction IV.....	3
CAR 241	Light Frame Const. IV-Lab.....	2

Diploma

Construction Carpenter - 4602014019

(Offered at BLC, BSC, ELC, JFC, MYC, SEC, SMC)

General Education Requirements:

Area 1:	Written Communication, Oral Communications, or Humanities/Heritage.....	3
Area 2:	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
	Subtotal	6

Note: WPP200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

Technical Requirements:

	Digital Literacy course OR demonstrated competency.....	0-3
BRX 220	Blueprint Reading for Construction.....	3
CAR 126	Intro to Construction	3
CAR 127	Intro to Construction-Lab	1
CAR 140	Surveying & Foundations	3
CAR 141	Surveying & Foundations-Lab	2
CAR 190	Light Frame Construction I.....	3
CAR 191	Light Frame Const. I –Lab	2
CAR 196	Light Frame Construction II.....	3
CAR 197	Light Frame Const. II–Lab	2
CAR 200	Light Frame Construction III	3
CAR 201	Light Frame Const. III–Lab	2
CAR 298	Practicum in Construction OR.....	2
CAR 299	Co-op in Construction.....	(2-4)
ISX 100	Industrial Safety.....	3
	Technical Electives*.....	10
	Subtotal	42-47
	Total	48-53

NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Carpentry instructor.)

BRX 120	Basic Blueprint Reading	3
CAR 150	Construction Formwork	3
CAR 151	Construction Formwork - Lab	2
CAR 198	Special Topics in Construction.....	1 - 6
CAR 240	Light Frame Construction IV.....	3
CAR 241	Light Frame Const. IV-Lab.....	2

Finish Carpenter - 4602014029

(Offered at JFC)

General Education Requirements: (6-9 credit hours)

Area 1:	Written Communication, Oral Communications, Or Humanities/Heritage.....	3
Area 2:	Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
	Subtotal	6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

Technical Requirements:

	Digital Literacy course OR demonstrated competency.....	0-3
INF 105	Introduction to Painting	2
INF 111	Advanced Painting	2
INF 115	Introduction to Wall covering	2
INF 121	Advanced Wall Covering.....	2
INF 125	Introduction to Drywall	2
INF 131	Advanced Drywall.....	2
INF 205	Introduction to Acoustical Carpentry	3
INF 211	Advanced Acoustical Carpentry	2

INF 220	Customer Relations	2
INF 298	Practicum (or)	2
CAR 299	Cooperative Education in Construction	(2-4)
	Subtotal	24-29
	Total Credits	30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Certificates

Carpenter Helper - 4602013109

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

BRX 220	Blueprint Reading for Construction.....	3
CAR 126	Intro to Construction	3
CAR 127	Intro to Construction-Lab	1
CAR 140	Surveying & Foundations	3
CAR 141	Surveying & Foundations-Lab	2
CAR 190	Light Frame Construction I – Floors and Walls	3
CAR 191	Light Frame Construction I – Floors and Walls (Lab)	2
	Total Credits	17

Construction Forms Helper - 4602013029

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

BRX 220	Blueprint Reading for Construction.....	3
CAR 126	Intro to Construction	3
CAR 127	Intro to Construction-Lab	1
CAR 150	Construction Formwork	3
CAR 151	Construction Formwork - Lab	2
	Electives: (*Suggested Technical Electives).....	6
	Total Credits	18

*Suggested Technical Electives:

(This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology Program Coordinator.

BRX 120	Basic Blueprint Reading	(3)
ISX 100	Industrial Safety.....	(3)
CAR 140	Construction Surveying and Foundation Systems	(3)
CAR 141	Construction Surveying and Foundation Systems-Lab	(2)
CAR 150	Construction Formwork	(3)
CAR 151	Construction Formwork – Lab.....	(2)
CAR 190	Light Frame Construction I- Floors and Walls	(3)
CAR 191	Light Frame Construction I- Floors and Walls-Lab	(2)
CAR 196	Light Frame Construction II- Ceilings and Roofs	(3)
CAR 197	Light Frame Construction II- Ceilings and Roofs-Lab.....	(2)
CAR 198	Special Topics in Construction.....	(1 – 6)
CAR 200	Light Frame Construction III- Exterior and Interior Finish .	(3)
CAR 201	Light Frame Construction III- Exterior and Interior Finish-Lab	(2)
CAR 240	Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques	(3)
CAR 241	Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques (Lab)	(2)
DLC 100	Digital Literacy	3

*Suggested General Education Electives:

TEC 200	Technical Communications	(3)
COM 181	Basic Public Speaking	(3)
COM 252	Intro to Interpersonal Communications	(3)
MAT 105	Business Mathematics	(3)
MAT 110	Applied Mathematics.....	(3)
MAT 116	Technical Mathematics	(3)
PHX 150	Introductory Physics	(3)
EFM 100	Personal Financial Management.....	(3)
WPP 200	Workplace Principles	(3)

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

Residential Carpenter - 4602013059

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

BRX	220	Blueprint Reading for Construction.....	3
CAR	126	Intro to Construction.....	3
CAR	127	Intro to Construction-Lab.....	1
CAR	140	Surveying & Foundations.....	3
CAR	141	Surveying & Foundations-Lab.....	2
CAR	190	Light Frame Construction I – Floors and Walls.....	3
CAR	191	Light Frame Construction I – Floors and Walls (Lab).....	2
CAR	196	Light Frame Construction II – Ceilings and Roofs.....	3
CAR	197	Light Frame Construction II – Ceilings and Roofs (Lab).....	2
CAR	200	Light Frame Construction III – Exterior and Interior Finish..	3
CAR	201	Light Frame Construction III – Exterior and Interior Finish (Lab).....	2
CAR	240	Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques.....	3
CAR	241	Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques (Lab).....	2
Total Credits			32

Residential Roofer - 4602013069

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

BRX	220	Blueprint Reading for Construction.....	3
CAR	126	Intro to Construction.....	3
CAR	127	Intro to Construction-Lab.....	1
CAR	196	Light Frame Construction II – Ceilings and Roofs.....	3
CAR	197	Light Frame Construction II – Ceilings and Roofs (Lab).....	2
Total Credits			12

Residential Site Layout Assistant - 4602013079

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

CAR	126	Intro to Construction.....	3
CAR	127	Intro to Construction-Lab.....	1
CAR	140	Surveying & Foundations.....	3
CAR	141	Surveying & Foundations-Lab.....	2
Electives: *Suggested Technical Electives.....			6
Total Credits			15

*Suggested Technical Electives:

(This list is not all inclusive. Other courses (technical or general education) may be taken as approved by Construction Technology Program Coordinator.

BRX	120	Basic Blueprint Reading.....	(3)
BRX	220	Blueprint Reading for Construction.....	(3)
ISX	100	Industrial Safety.....	(3)
CAR	150	Construction Formwork.....	(3)
CAR	151	Construction Formwork-Lab.....	(2)
CAR	190	Light Frame Construction I-Floors and Walls.....	(3)
CAR	191	Light Frame Construction I-Floors and Walls.....	(2)
CAR	196	Light Frame Construction II-Ceilings and Walls.....	(3)
CAR	197	Light Frame Construction II-Ceilings and Walls-Lab.....	(2)
CAR	198	Special Topics in Construction.....	(1-6)
CAR	200	Light Frame Construction III-Exterior and Interior Finish..	(3)
CAR	201	Light Frame Construction III-Exterior and Interior Finish-Lab.....	(2)
CAR	240	Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques.....	(3)
CAR	241	Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques-Lab.....	(2)
DLC	100	Digital Literacy.....	3

*Suggested General Education Electives:

TEC	200	Technical Communications.....	(3)
COM	181	Basic Public Speaking.....	(3)
COM	252	Intro to Interpersonal Communications.....	(3)
MAT	105	Business Mathematics.....	(3)
MAT	110	Applied Mathematics.....	(3)
MAT	116	Technical Mathematics.....	(3)

PHX	150	Introductory Physics.....	(3)
EFM	100	Personal Financial Management.....	(3)
WPP	200	Workplace Principles.....	(3)

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

Rough Carpenter - 4602013089

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

BRX	220	Blueprint Reading for Construction.....	3
CAR	126	Intro to Construction.....	3
CAR	127	Intro to Construction-Lab.....	1
CAR	140	Surveying & Foundations.....	3
CAR	141	Surveying & Foundations-Lab.....	2
CAR	190	Light Frame Construction I – Floors and Walls.....	3
CAR	191	Light Frame Construction I – Floors and Walls (Lab).....	2
CAR	196	Light Frame Construction II – Ceilings and Roofs.....	3
CAR	197	Light Frame Construction II – Ceilings and Roofs (Lab).....	2
Total Credits			22

Basic Carpenter - 4602013139

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

CAR	126	Intro to Construction.....	3
CAR	127	Intro to Construction-Lab.....	1
Electives: (Any five [5] additional credits, program or otherwise).....			5
Total Credits			9

Acoustical Carpenter - 4602013119

(Offered at BSC, ELC, HZC, JFC, SEC)

INF	205	Introduction to Acoustical Carpentry.....	3
INF	211	Advanced Acoustical Carpentry.....	2
Electives: *Technical Electives.....			6
Total Credits			11

Dry Waller - 4602013039

(Offered at BSC, ELC, HZC, JFC, SEC)

INF	125	Introduction to Drywall.....	2
INF	131	Advanced Drywall.....	2
Electives: *Technical Electives.....			4
Total Credits			8

Painter, Interior Finish - 4602013049

(Offered at BSC, HZC, JFC, SEC)

INF	105	Introduction to Painting.....	2
INF	111	Advanced Painting.....	2
Electives: *Technical Electives.....			2
Total Credits			6

Painter, Paper Hanger - 4602013129

(Offered at BSC, HZC, JFC, SEC)

INF	105	Introduction to Painting.....	2
INF	111	Advanced Painting.....	2
INF	115	Introduction to Wallcovering.....	2
INF	121	Advanced Wallcovering.....	2
Total Credits			8

Green Building Technology - 4602013159

(Offered at HZC, JFC, SEC)

BRX	220	Blueprint Reading for Construction.....	3
CAR	270	Green Building.....	3
CAR	126	Introductory to Construction.....	3
CAR	127	Introduction to Construction Lab.....	1
Electives (*Suggested Technical Electives).....			10
Total Credits			20

***Suggested Technical Electives:**

Select a minimum of 10 credit hours. (This list is not all inclusive. Other courses may be taken as approved by Construction Technology Instructor.)

CAR 140	Surveying & Foundations	3
CAR 141	Surveying & Foundations-Lab	2
CAR 190	Light Frame Construction I – Floors and Walls	3
CAR 191	Light Frame Construction I – Floors and Walls (Lab)	2
CAR 196	Light Frame Construction II – Ceilings and Roofs	3
CAR 197	Light Frame Construction II – Ceilings and Roofs (Lab)	2
CAR 200	Light Frame Construction III-Exterior and Interior Finish	3
CAR 201	Light Frame Construction III-Exterior and Interior Finish-Lab	2

NCCER Skills Standard Level I – 4602013169

(Offered at HZC, SEC)

BRX 220	Blueprint Reading for Construction OR	3
BRX 2201	Basic Construction Prints AND	(1)
BRX 2202	Construction Blueprints	(2)
CAR 126	Introduction to Construction	3
CAR 127	Introduction to Construction Lab	1
CAR 190	Light Frame Construction I – Floors and Walls	3
CAR 191	Light Frame Construction I – Floors and Walls (Lab)	2
CAR 196	Light Frame Construction II – Ceilings and Roofs	3
CAR 197	Light Frame Construction II – Ceilings and Roofs (Lab)	2
CAR 2001	Light Frame Construction III – Interior AND	1
CAR 2011	Light Frame Construction III – Lab Interior OR	1
CAR 2002	Light Frame Construction III – Exterior AND	(1)
CAR 2012	Light Frame Construction III – Lab Exterior OR	(1)
CAR 200	Light Frame Construction III AND	(3)
CAR 201	Light Frame Construction III-Laboratory	(2)
CAR 299	Cooperative Education in Construction	2-4
ISX 100	Industrial Safety OR Approved Safety course by Program Coordinator	3
Total Credits		24-29

Cosmetology

Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the Board of Hairdressers and Cosmetologists. As required by the Board of Hairdressers and Cosmetologists, the applicant shall furnish proof that he or she has earned a high diploma or its equivalent.

Documentation of digital literacy as defined by KCTCS is required prior to graduation for the diploma credential.

Progression in the Cosmetology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1800 hours of instruction and the six-month apprenticeship, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetologists.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetology instructors.

After successful completion of the prescribed 600 hours of instruction, program graduates are eligible to take the examination administered

by the Kentucky Board of Hairdressers and Cosmetology to become licensed nail technicians.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed estheticians.

Diploma

Cosmetologist - 1204014019

(Offered at ASC, BLC, BSC, GTW, HZC, JFC, SMC, WKC)

General Education:

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
Subtotal		6

NOTE: Documentation of digital literacy as defined by KCTCS is required prior to graduation.

Technical Courses:

COS 114	Cosmetology I	14
COS 116	Cosmetology II	14
COS 218	Cosmetology III	14
COS 220	Cosmetology IV	12
Subtotal		54
Total Credits		60

Electives:

COS 135	Individual Requirements I	1-8
COS 235	Individual Requirements II	1-8

Certificates

Cosmetologist - 1204013039

(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)

COS 114	Cosmetology I	14
COS 116	Cosmetology II	14
COS 218	Cosmetology III	14
COS 220	Cosmetology IV	12
Total Credits		54

Electives:

COS 135	Individual Requirements I	1-8
COS 235	Individual Requirements II	1-8

Apprentice Cosmetology Instructor - 1204013019

(Offered at ASC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)

COS 210	Student Teaching I	13
COS 212	Student Teaching II	13
COS 214	Student Teaching III	13
Total Credits		39

OR

COS 216	Teaching I	20
COS 217	Teaching II	20
Total Credits		40

Electives:

COS 135	Individual Requirements I	1-8
COS 235	Individual Requirements II	1-8

Nail Technician - 1204013029

(Offered at ASC, BSC, HZC, JFC, MYC, SMC)

COS 150	Basic Nail Tech	13
COS 152	Applied Nail Technology	13
Total Credits		26

Electives:

COS 135 Individual Requirements I..... 1-8
COS 235 Individual Requirements II..... 1-8

Esthetician - 1204093019

(Offered at BLC)

COS 105 Esthetician I..... 14
COS 205 Esthetician II..... 14
COS 275 Esthetician III..... 13
Total Credits 41

Electives

COS 135 Individual Requirements I..... 1-8
COS 235 Individual Requirements II..... 1-8

Criminal Justice

The Criminal Justice Program prepares the student for entry level work in the fields of law enforcement, corrections, court systems, loss safety and prevention, and other related occupations. The Criminal Justice vocations evolved from jobs with minimal requirements to employment positions that require complex knowledge and skills. Criminal Justice Program Curriculum provides the student with a foundation of theory, principles, and techniques employed by the criminal justice agencies. Graduates who complete an AAS Criminal Justice Degree may seek job opportunities on the federal, state, county, municipal levels of government, and private sectors of the criminal justice field.

Progression in the Criminal Justice Program is contingent upon the achievement of a grade of "C" or better in each CRJ course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). The grading scale for criminal justice courses with a Pass/Fail scale, the grade of "P or Pass" meets the requirement for the Criminal Justice Program.

Criminal Justice Program Certificates are embedded in the Criminal Justice AAS Degree. The certificates are not stand alone certificates; therefore a student cannot receive financial aid for just a certificate. The student must be a Criminal Justice AAS Degree seeker in order to obtain program certificates.

Criminal background checks are currently not required for the Criminal Justice AAS Program; however students should understand that certain disqualifiers may hinder employment in the field of criminal justice. Such disqualifiers include, but are not limited to the following: criminal convictions, substance abuse, offensive social media activities, excessive traffic related offenses, and visible tattoos and body piercings. Students seeking employment in the criminal justice field or related field should research the requirements and disqualifiers of their desired areas or agencies of employment.

Associate in Applied Science

Criminal Justice - 4301037039

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

General Education:

ENG 101 Writing I..... 3
ENG 102 Writing II..... 3
COM 181 Basic Public Speaking OR..... 3
COM 252 Introduction to Interpersonal Communication..... (3)
Quantitative Reasoning Course..... 3
Natural Sciences Course..... 3
Heritage/Humanities Course..... 3
POL 101 American Government OR..... 3

POL 255 State Government..... (3)
PSY 110 General Psychology..... 3
SOC 101 Introduction to Sociology..... 3
Elective Courses (Can be Technical or General Education Elective courses)..... 6
Subtotal: 33

Digital Literacy OR General Education Elective..... 3
(Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course; if student does not have to take a digital literacy class then the student must choose a general education elective for the completion of the three (3) hours).
Subtotal: 3

Technical Core Requirements:

CRJ 100 Introduction to Criminal Justice..... 3
CRJ 202 Issues and Ethics in Criminal Justice..... 3
CRJ 204 Criminal Investigations..... 3
CRJ 216 Criminal Law..... 3
CRJ 217 Criminal Procedures..... 3
CRJ 295 Criminal Justice Capstone..... 1
Subtotal: 16

Criminal Justice Track - 430103701

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Track Electives: (Choose 9 credit hours from the following courses)

CRJ 102 Introduction to Corrections..... 3
CRJ 108 Advanced Firearms and Less Than Lethal Weapons..... 4
CRJ 110 Principles of Asset Protection..... 3
CRJ 201 Introduction to Criminalistics..... 3
CRJ 203 Community Corrections/Probation & Parole..... 3
CRJ 208 Delinquency and the Juvenile Justice System..... 3
CRJ 210 Physical Security Technology and Systems..... 3
CRJ 211 Liability and Legal Issues..... 3
CRJ 215 Introduction to Law Enforcement..... 3
CRJ 218 Police Supervision..... 3
CRJ 219 Police Recruit Defensive Tactics..... 4
CRJ 220 Introduction to Computer Forensics..... 3
CRJ 222 Prison and Jail Administration..... 3
CRJ 224 Basic Traffic Collision Investigation..... 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement..... 4
CRJ 230 Criminal Justice Courtroom Procedures..... 3
CRJ 231 Legal Aspects of Corrections..... 3
CRJ 240 Introduction to Corporate and Industrial Security..... 3
CRJ 245 Introduction to Business and Financial Fraud..... 3
CRJ 277 Introduction to Criminology..... 3
CRJ 279 Terrorism and Political Violence..... 3
CRJ 290 Internship in Criminal Justice..... 3
CRJ 299 Selected Topics in Criminal Justice..... 1-3
Subtotal: 9

Technical Elective..... 0-3
Subtotal 0-3

Total Credits 61-64

Law Enforcement Track - 430103702

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required Course:

CRJ 215 Introduction to Law Enforcement..... 3
Subtotal: 3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 108	Advanced Firearms and Less Than Lethal Weapons	4
CRJ 201	Introduction to Criminalistics	3
CRJ 208	Delinquency and the Juvenile Justice System	3
CRJ 218	Police Supervision	3
CRJ 219	Police Recruit Defensive Tactics.....	4
CRJ 220	Introduction to Computer Forensics	3
CRJ 224	Basic Traffic Collision Investigation	4
CRJ 225	Driving and Traffic Enforcement for Law Enforcement.....	4
CRJ 230	Criminal Justice Courtroom Procedures	3
CRJ 277	Introduction to Criminology	3
CRJ 279	Terrorism and Political Violence	3
CRJ 290	Internship in Criminal Justice	3
CRJ 299	Selected Topics in Criminal Justice	1-3
Subtotal:		9

Technical Elective.....	0-3
Subtotal	0-3

Total Credits 61-64

Corrections Track - 430103703

(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Required:

CRJ 102	Introduction to Corrections	3
Subtotal		3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 203	Community Corrections/Probation & Parole	3
CRJ 208	Delinquency and the Juvenile Justice System	3
CRJ 220	Introduction to Computer Forensics	3
CRJ 222	Prison and Jail Administration	3
CRJ 231	Legal Aspects of Corrections	3
CRJ 277	Introduction to Criminology	3
CRJ 290	Internship in Criminal Justice	3
CRJ 299	Selected Topics in Criminal Justice	1-3
Subtotal		9

Technical Elective.....	0-3
Subtotal	0-3

Total Credits 61-64

Security and Loss Prevention Track - 430103704

(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required course:

CRJ 110	Principles of Asset Protection	3
Subtotal		3

Track Electives: (Choose 6 credit hours from the following courses)

CRJ 210	Physical Security Technology and Systems.....	3
CRJ 211	Liability and Legal Issues	3
CRJ 220	Introduction to Computer Forensics	3
CRJ 240	Introduction to Corporate and Industrial Security.....	3
CRJ 245	Introduction to Business and Financial Fraud	3
CRJ 290	Internship in Criminal Justice	3
CRJ 299	Selected Topics in Criminal Justice	1-3
Subtotal:		9

Technical Elective.....	0-3
Subtotal	0-3

Total Credits 61-64

NOTE: CRJ 107 Introduction to Firearms I may be used as a technical elective only. Course will not substitute for track elective.

Certificates

Computer Forensics - 4301033019

(Offered ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

CRJ 100	Introduction to Criminal Justice OR.....	3
CRJ 204	Criminal Investigations	(3)
CRJ 220	Introduction to Computer Forensics for Criminal Justice	3
CRJ 230	Criminal Justice Courtroom Procedures	3
CIT 105	Introduction to Computers	3
CIT 111	Computer Hardware and Software	4
CIT 160	Introduction to Networking Concepts OR.....	4
CIT 161	Introduction to Networks	(4)
CIT 180	Security Fundamentals.....	3
Total:		23

Criminal Justice Core – 4301033029

(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 100	Introduction to Criminal Justice	3
CRJ 202	Issues and Ethics in Criminal Justice	3
CRJ 204	Criminal Investigations	3
CRJ 216	Criminal Law	3
CRJ 217	Criminal Procedures	3
Total:		15

Corrections -4301033039

(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 102	Introduction to Corrections	3
CRJ 203	Community Corrections: Probation and Parole.....	3
CRJ 208	Delinquency and the Juvenile Justice System	3
CRJ 222	Prison and Jail Administration	3
CRJ 231	Legal Aspects of Corrections	3
Total:		15

Law Enforcement – 4301033049

(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 201	Introduction to Criminalistics OR.....	3
CRJ 204	Criminal Investigations	(3)
CRJ 208	Delinquency and Juvenile Justice System.....	3
CRJ 211	Liability and Legal Issues	3
CRJ 215	Introduction to Law Enforcement	3
CRJ 218	Police Supervision	3
Total:		15

Security and Loss Prevention – 4301033059

(Offered ASC, BSC, BLC, ELC, GTW, HPC, MYC, SEC, SMC, WKC)

CRJ 110	Principles of Asset Protection	3
CRJ 210	Physical Security Technology & Systems	3
CRJ 211	Liability and Legal Issues	3
CRJ 220	Introduction to Computer Forensics	3
CRJ 240	Introduction to Corporate Security	3
Total:		15

Advanced Law Enforcement – 4301033069

(Offered BSC, BLC, MDC, MYC, SEC, SMC)

CRJ 107	Introduction to Firearms	1
CRJ 108	Advanced Firearms and Less Than Lethal Weapons	4
CRJ 204	Criminal Investigations	3
CRJ 215	Introduction to Law Enforcement	3
CRJ 219	Police Recruit Defensive Tactics.....	4
CRJ 224	Basic Traffic Collision Investigation	4
CRJ 225	Driving and Traffic Enforcement for Law Enforcement.....	4
Total:		23

Culinary Arts

The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of "C" or better in each CUL and NFS courses.

Associate in Applied Science

Culinary Arts - 1205037029

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/Humanities	3
Written Communication	3
Oral Communications	3
Required General Education Hours	18

Culinary Arts Technical Core

CUL 100	Introduction to Culinary Arts OR	2
CUL 105	Applied Introduction to Culinary Arts	(2)
CUL 250	Garde Manger	4
CUL 125	Sanitation and Safety	2
CUL 211	Basic Food Production	4
CUL 215	Basic Baking	4
CUL 230	Basic Nutrition OR	3
NFS 101	Human Nutrition and Wellness	(3)
CUL 240	Meats, Seafood, and Poultry	4
CUL 270	Human Relations Management	3
CUL 280	Cost and Control	3
CUL 285	Front of the House OR	3
CUL 290	Front of the House/Catering	(4)
	Digital Literacy*	0-3
	Required Technical Core Hours	32-36

* Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Culinary Arts Degree Track - 120503702

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

	General Education	18
	Technical Core	32-36
CUL 220	Advanced Baking and Pastry Arts	4
CUL 260	International and Classical Cuisine	4
CUL 298	Culinary Arts Practicum Experience OR	2-3
CUL 299	Culinary Arts Cooperative Education Experience	(2-3)
	Total Hours	60-65

Food and Beverage Management Degree Track - 120503703

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

	General Education	18
	Technical Core	32-36
BAS 160	Introduction to Business	3
BAS 170	Entrepreneurship OR	3
BAS 283	Principles of Management	(3)
BAS 282	Principles of Marketing	3
CUL 298	Culinary Arts Practicum Experience OR	2-3
CUL 299	Culinary Arts Cooperative Education Experience	(2-3)
	Total Hours	61-66

Catering and Personal Chef Degree Track - 120503701

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

	General Education	18
	Technical Core	32-36
CUL 220	Advanced Baking and Pastry Arts	4
BAS 170	Entrepreneurship AND	3
CUL 295	Doing Business as a Personal Chef OR	3
BAS 160	Introduction to Business AND	(3)
BAS 283	Principles of Management	(3)
CUL 298	Culinary Arts Practicum Experience OR	2-3
CUL 299	Culinary Arts Cooperative Education Experience	(2-3)
	Total Hours	62-67

Diplomas

Culinary Arts - 1205034029

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

Area 1 =	Written/Oral Communications, Humanities, or Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
	Subtotal	6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP 200	Workplace Principles (Area 2) OR	3
EFM 100	Personal Financial Management (Area 2)	(3)
TEC 200	Technical Communications (Area 1)	3

Technical or Support Courses

	Technical Core	32-36
CUL 220	Advanced Baking and Pastry Arts	4
CUL 260	International and Classical Cuisine	4
CUL 298	Culinary Arts Practicum Experience OR	2-3
CUL 299	Culinary Arts Cooperative Education Experience	(2-3)
	Technical/ Support Total	42-47

Total Hours for Culinary Arts Diploma 48-53

Food and Beverage Management - 1205034039

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

Area 1 =	Written/Oral Communications, Humanities, or Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
	Subtotal	6

*** If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:**

WPP	200	Workplace Principles (Area 2) OR	3
EFM	100	Personal Financial Management (Area 2)	(3)
TEC	200	Technical Communications (Area 1)	3

Technical or Support Courses

		Technical Core	32-36
BAS	160	Introduction to Business	3
BAS	170	Entrepreneurship OR	3
BAS	283	Principles of Management	(3)
BAS	282	Principles of Marketing	3
CUL	298	Culinary Arts Practicum Experience OR	2-3
CUL	299	Culinary Arts Cooperative Education Experience	(2-3)
		Technical/Support Total	43-48
		Total Hours	49-54

Catering and Personal Chef - 1205034019

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

Area 1 =	Written/Oral Communications, Humanities, or Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
	Subtotal	6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP	200	Workplace Principles (Area 2) OR	3
EFM	100	Personal Financial Management (Area 2)	(3)
TEC	200	Technical Communications (Area 1)	3

Technical or Support Courses

		Technical Core	32-36
CUL	220	Advanced Baking and Pastry Arts	4
BAS	170	Entrepreneurship AND	3
CUL	295	Doing Business as a Personal Chef OR	3
BAS	160	Introduction to Business AND	(3)
BAS	283	Principles of Management	(3)
CUL	298	Practicum Experience OR	2-3
CUL	299	Cooperative Education	(2-3)
		Technical Support Total	44-49
		Total Hours	50-55

Certificates

Fundamentals of Culinary Arts - 1205033029

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

CUL	100	Introduction to Culinary Arts OR	2
CUL	105	Applied Introduction to Culinary Arts	(2)
CUL	250	Garde Manger	4
CUL	125	Sanitation and Safety	2
CUL	211	Basic Food Production	4
CUL	215	Basic Baking	4
		Total Hours	16

Catering - 1205033059

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

CUL	100	Introduction to Culinary Arts OR	2
CUL	105	Applied Introduction to Culinary Arts	(2)
CUL	250	Garde Manger	4
CUL	125	Sanitation and Safety	2
CUL	215	Basic Baking	4
CUL	290	Front of the House/Catering	4
		Total Hours	16

Advanced Catering - 1205033079

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

CUL	211	Catering Certificate	16
CUL	220	Basic Food Production	4
CUL	240	Advanced Baking and Pastry Arts	4
CUL	240	Meats, Seafood, Poultry	4
CUL	260	International and Classical Cuisine	4
CUL	270	Human Relations Management	3
CUL	280	Cost and Control	3
BAS	170	Entrepreneurship OR	3
BAS	160	Introduction to Business AND	(3)
BAS	283	Principles of Management	(3)
		Total Hours	41-44

Culinary Arts - 1205033049

(Offered at ASC, ELC, MYC, OWC, SKY, SMC, WKC)

		Culinary Arts Technical Core	32-36
		Total Hours	32-36

Advanced Culinary Arts - 1205033069

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

		Culinary Arts Technical Core	32-36
		Culinary Arts Degree Track Courses	10-11
		Total Hours	42-47

Food and Beverage Management - 1205033039

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

CUL	100	Introduction to Culinary Arts OR	2
CUL	105	Applied Fundamentals of the Culinary Arts Profession	(2)
CUL	125	Sanitation and Safety	2
CUL	211	Basic Food Production	4
CUL	215	Basic Baking	4
CUL	240	Meats, Seafood, and Poultry	4
CUL	270	Human Relations Management OR	3
CUL	280	Cost and Control	3
BAS	160	Introduction to Business	3
BAS	282	Principles of Marketing	3
BAS	283	Principles of Management	3
		Digital Literacy*	0-3
		Total Hours	31-34

Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Advanced Food and Beverage Management - 1205033089

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

CUL	100	Introduction to Culinary Arts OR	2
CUL	105	Applied Fundamentals of the Culinary Arts Profession	(2)
CUL	250	Garde Manger	4
CUL	125	Sanitation and Safety	2
CUL	211	Basic Food Production	4
CUL	215	Basic Baking	4
CUL	230	Basic Nutrition OR	3
NFS	101	Human Nutrition and Wellness	(3)
CUL	240	Meats, Seafood, and Poultry	4
CUL	270	Human Relations Management	3
CUL	280	Cost and Control	3
CUL	285	Front of the House OR	(3)
CUL	290	Front of the House/Catering	4
BAS	160	Introduction to Business	3
BAS	170	Entrepreneurship OR	3
BAS	283	Principles of Management	(3)
BAS	282	Principles of Marketing	3
CUL	298	Culinary Arts Practicum Experience OR	2-3
CUL	299	Culinary Arts Cooperative Education Experience	(2-3)
		Total Hours	43-45

Culinary Arts Professional Development - 1205033099

(Offered at SKY, SMC, WKC)

CUL Students may choose 12 credit hours from any Culinary Arts courses*
Total Hours 12

*Prerequisites apply

Baking-1205033109

(Offered at ASC, MYC, SKY, SMC, WKC)

CUL 100	Introduction to Culinary Arts...OR	2
CUL 105	Applied Introduction to Culinary Arts	(2)
CUL 125	Sanitation and Safety	2
CUL 215	Basic Baking	4
CUL 220	Advanced Baking	4
Total Hours		12

Dental Hygiene

This program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation and Kentucky state dental practice act. The program provides comprehensive educational experiences through lectures, clinical and related study in order that students may apply scientific knowledge in the performance of dental hygiene procedures. Students enrolled in the Dental Hygiene program must achieve a minimum grade of "C" in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

Associate in Applied Science

Dental Hygiene - 5106027019

(Offered at BLC)

General Education Core

BIO 137	Human Anatomy & Physiology I*	4
BIO 139	Human Anatomy & Physiology I*	4
BIO 226	Principles of Microbiology	3
PSY 110	General Psychology	3
SOC 101	Introduction to Sociology	3
	Heritage/Humanities	3
	Quantitative Reasoning	3
	Written Communication	3
	Oral Communications	3
Subtotal Credits		29

Technical Courses

DHP 120	Dental Hygiene I**	4
DHP 121	Oral Biology I	3
DHP 122	Dental Nutrition	2
DHP 130	Dental Hygiene II	3
DHP 131	Oral Biology II	5
DHP 135	Dental Radiology	3
DHP 136	Periodontics I	2
DHP 220	Dental Hygiene III	3
DHP 222	Special Needs Patients	3
DHP 224	Dental Materials	2
DHP 226	Periodontics II	2
DHP 230	Dental Hygiene IV	3
DHP 235	Principles of Practice	1
DHP 238	Community Dental Health	3
Subtotal Credits		39

Total Program Credits 68

Recommended Electives (Not Required)

DHP 229	Local Anesthesia	(2)
DHP 299	Independent Study Dental Hygiene	(1-4)
ENG 102	Writing II	(3)
NFS 101	Human Nutrition and Wellness	(3)

*The Dental Hygiene Program at BTC requires that BIO 137 & BIO 139 or their equivalents be successfully completed with a grade of C or higher prior to beginning DHP 120.

**Documentation of computer/digital literacy as defined by KCTCS is required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program

Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliaries.

The Dental Assisting program prepares the student to function as a dental assistant under the supervision of a dentist. As a member of the dental health team, the dental assistant is responsible for providing such services as assisting the dentist with operative and surgical procedures, manipulation of dental materials, taking radiographs, providing oral health instructions and performing office management tasks.

Dental Assisting students will be awarded a Diploma in Dental Assisting and will be eligible to take the Dental Assisting National Board (DANB). Graduates will also be certified in radiation health and safety, coronal polishing and expanded duties (lab competency). The dental assisting curriculum includes courses in general education as well as dental assisting as required by the Commission on Dental Accreditation. The program provides comprehensive educational experiences through lectures, clinical externship rotations, laboratory and related study. Students must achieve a minimum grade of "C" in each Dental Assisting (DAS) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of "C" in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.

Associate in Applied Science

Dental Hygiene - 5106027040

(Offered in West Consortium – Credential granted by Henderson CC but also taught at West KY CTC)

(Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC)

General Education Classes:

ENG 101	Writing I	3
ENG 102	Writing II	3
BIO 137	Human Anatomy & Physiology I	4
BIO 139	Human Anatomy & Physiology II	4
BIO 225	Medical Microbiology	4
PSY 110	General Psychology	3
SOC 101	Introductory Sociology	3
MAT 110	Applied Mathematics OR	3
MAT 150	College Algebra and Functions	(3)
	Oral Communications	3
	Heritage/Humanities	3
	Subtotal	33

Integrated Classes:

DAH 101	Infection Control and Medical Emergencies	2
DAH 121	Dental Sciences	3
DAH 124	Materials in Dentistry	2
DAH 131	Oral Pathology	3
DAH 135	Oral Radiology	2
DAH 235	Practice Management	1
	Subtotal	13

Dental Hygiene Only Classes:

DHG 120	Pre-Clinical Dental Hygiene	3
DHG 130	Clinical Dental Hygiene I	3
DHG 132	Pharmacology	2
DHG 134	Dental Nutrition	2
DHG 136	Periodontology	1
DHG 220	Clinical Dental Hygiene II	4
DHG 226	Advanced Periodontology	2
DHG 230	Clinical Dental Hygiene III	3
DHG 238	Community Dental Health Issues	2
	Subtotal	22

Total Credit Hours 68

Elective

DHG 221	Local Anesthesia and Nitrous Oxide Sedation	2
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Diploma

Dental Assisting - 5106024019

(Offered in West Consortium – Credential granted by Ashland CTC, Big Sandy CTC, West KY CTC but also taught at Henderson CC)

General Education Classes:

Program Related Classes

BIO 135	Basic Anatomy & Physiology with Laboratory OR	4
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II	(4)
	Three credits from Written Communication, Oral Communications, or Heritage/Humanities	3
PSY 110	General Psychology *	(3)

*Required at Bluegrass CTC, recommended at West Kentucky CTC

Subtotal 7-14

Integrated Classes

DAH 101	Infection Control and Medical Emergencies	2
DAH 121	Dental Sciences	3
DAH 124	Materials in Dentistry	2

DAH 131	Oral Pathology	3
DAH 135	Oral Radiology	2
DAH 235	Practice Management	1
	Subtotal	13

Dental Assisting Only Classes

DAS 125	Dental Assisting I	6
DAS 130	Seminar I	2
DAS 225	Dental Assisting II	2
DAS 230	Seminar II	1
DAS 245	Preventive Dentistry	2
DAS 250	Clinical Externship	5
	Subtotal	18

Total Credit Hours 38-45

Diagnostic Medical Sonography

Diagnostic Medical Sonography is a highly-skilled profession which uses specialized equipment to create images of structures inside the human body used by physicians to make medical diagnoses. Graduates of the program are qualified to provide patient services using diagnostic techniques under the supervision of a licensed physician.

This program contains four tracks, the general/vascular track, the general track, the vascular track and the cardiac track. The general/vascular track prepares the graduate to be a general sonographer who is qualified to perform vascular ultrasound. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. The general track prepares the graduate to perform sonograms on the abdominal, small parts and OB/GYN applications. The vascular track prepares the graduate to perform sonograms on the cerebrovascular, peripheral arterial, peripheral venous and abdominal vascular applications. The cardiac track prepares the graduate to perform cardiovascular sonograms.

Sectional anatomy, ultrasonic instrumentation and imaging are the major components in this program. Skills are developed through clinical experiences using diagnostic imagery equipment.

An advanced option (certificate) in vascular sonography is offered for candidates who are currently employed and registry eligible in Diagnostic Medical Sonography.

The student is exposed to and expected to acquire skills, attitudes, and habits that are generally common to all professionals in the medical field. Graduates will be prepared for a professional career in the opted sonography field.

CPR requirement must be successfully completed prior to enrolling in the first sonography course and must be kept current throughout the program. Documentation of successful completion of a minimum 75 hour nursing assistant course or its equivalent and digital literacy competency as defined by KCTCS are required prior to enrolling in the first sonography course.

Progression in the Diagnostic Medical Sonography program is contingent upon achievement of a grade of "C" or better in each Sonography course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Transportation to the community agencies is the responsibility of each student.

Note: Hours Exception (67-76 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Diagnostic Medical Sonography - 5109107019

(Offered at ELC, HZC, SKY, WKC)

General Education:

MAT 150	College Algebra or higher mathematics course	3
ENG 101	Writing I	3
	Heritage/Humanities	3
	Social/Behavioral Sciences	3
BIO 137	Human Anatomy and Physiology I AND	4
BIO 139	Human Anatomy and Physiology II OR	4
BIO 135	Basic Anatomy and Physiology with Laboratory	(4)
PHY 151	Introductory Physics I OR	3
PHY 152	Introductory Physics II OR	(3)
PHY 171	Applied Physics	(4)
	Subtotal	19-24

General/Vascular Sonography Track – 510910705

(Offered at ELC, HZC, WKC)

AHS 120	Medical Terminology	1
DMS 109	Sonography I	7
DMS 115	Sonography II	6
DMS 119	Ultrasonic Physics and Instrumentation	6
DMS 199	Online Physics Review AND/OR	1
DMS 201	Online Abdomen Review AND/OR	(1)
DMS 202	Online OB/GYN Review	(1)
DMS 255	Vascular Technology	6
DMS 260	Vascular Clinical Education	6

A total of 17 credit hours must be completed from the following clinical courses:

DMS 126	Clinical Education I	(3-4)	17
DMS 230	Clinical Education II	(5-8)	
DMS 240	Clinical Education III	(5-8)	
	Subtotal		50-52
	Total		69-76

General Sonography Track - 510910706

(Offered at ELC, HZC, SKY, WKC)

AHS 120	Medical Terminology	1
NAA 100	Nursing Assistant Skills OR	3
HST 101	Basic Skills I	(3)
DMS 111	Abdominal Sonography	7
DMS 116	OB/GYN Sonography	6
DMS 121	Sonography Physics and Instrumentation	6
DMS 199	Online Physics Review	1
DMS 201	Online Abdomen Review	1
DMS 202	Online OB/GYN Review	1

A total of 17 credit hours must be completed from the following clinical courses:

DMS 126	Clinical Education I	(3-4)	17
DMS 230	Clinical Education II	(5-8)	
DMS 240	Clinical Education III	(5-8)	
	Subtotal		43
	Total		62-67

Vascular Sonography Track – 510910707

(Offered at ELC)

AHS 120	Medical Terminology	1
DMS 117	Vascular Sonography I	7
DMS 118	Vascular Sonography II	6
DMS 121	Sonography Physics and Instrumentation	6
DMS 136	Vascular Clinical Education I	4
DMS 199	Online Physics Review	1

DMS 204	Online Vascular Review	2
DMS 206	Online Vascular Sonography III	3
DMS 236	Vascular Clinical Education II	8
DMS 237	Vascular Clinical Education III	5
	Subtotal	43
	Total	62-67

Cardiac Sonography Track – 510910708

(Offered at ELC)

AHS 120	Medical Terminology	1
DMS 105	Introduction to Cardiology	13
DMS 145	Cardiac Sonography I	12
DMS 205	Cardiac Sonography II	6
DMS 215	Cardiac Sonography III	6
DMS 245	Cardiac Sonography IV	6
	Subtotal	44
	Total	63-68

Certificates

Basic Vascular Sonography Technology – 5109103069

(Offered at SKY)

DMS 280	Basic Vascular Technology	3
	Total	3

Cardiac Sonography – 5109103079

DMS 105	Introduction to Cardiology	13
DMS 145	Cardiac Sonography I	12
DMS 205	Cardiac Sonography II	6
DMS 215	Cardiac Sonography III	6
DMS 245	Cardiac Sonography IV	6
	Total	43

General Sonography -5109103089

DMS 111	Abdominal Sonography	7
DMS 116	OB/GYN Sonography	6
DMS 121	Sonography Physics and Instrumentation	6
DMS 199	Online Physics Review	1
DMS 201	Online Abdomen Review	1
DMS 202	Online OB/GYN Review	1

A total of 17 credit hours must be completed from the following clinical courses:

DMS 126	Clinical Education I	(3-4)	17
DMS 230	Clinical Education II	(5-8)	
DMS 240	Clinical Education III	(5-8)	
	Total		39

Vascular Sonography– 5109103099

DMS 117	Vascular Sonography I	7
DMS 118	Vascular Sonography II	6
DMS 121	Sonography Physics and Instrumentation	6
DMS 136	Vascular Clinical Education I	4
DMS 199	Online Physics Review AND	1
DMS 204	Online Vascular Review	2
DMS 206	Online Vascular Sonography III	3
DMS 236	Vascular Clinical Education II	8
DMS 237	Vascular Clinical Education III	5
	Total	42

Basic Cardiac Ultrasound Technology - 5109103059

(Offered at SKY)

DMS 217	Basic Cardiac Ultrasound Technology	3
	Total	3

Diesel Technology

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of "C" or better to receive credit for successful completion of courses in the diesel technology curriculum.

Associate in Applied Science

Diesel Technology - 4706057039

(Offered at ELC, HPC, OWC, SEC)

General Education:

Written Communication	3
Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/Humanities	3
Subtotal	15

Technical Core:

	Computer/Digital Literacy	3
BEX 100	Basic Electricity for Non-Majors AND	3
BEX 101	Basic Electricity Lab for Non-Majors OR	2
ADX 120	Basic Automotive Electricity AND	(3)
ADX 121	Basic Automotive Electricity Lab OR	(2)
ELT 110	Circuits I	(5)
ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
DIT 103	Preventive Maintenance Lab	2
DIT 110	Introduction to Diesel Engines AND	3
DIT 111	Introduction to Diesel Engines Lab OR	(2)
ADX 150	Engine Repair AND	(3)
ADX 151	Engine Repair Lab	(2)
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
DIT 140	Hydraulics AND	3
DIT 141	Hydraulics Lab OR	(2)
FPX 100	Fluid Power AND	(3)
FPX 101	Fluid Power Lab	(2)
DIT 150	Power Trains	3
DIT 151	Power Trains Lab	2
DIT 190	Electrical Systems for Diesel Equipment AND	3
DIT 191	Electrical Systems for Diesel Equipment Lab OR	(2)
ADX 260	Electrical Systems AND	(3)
ADX 261	Electrical Systems Lab	(2)
	Subtotal	39

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course. If demonstrated by a competency exam, an additional three credit hour class must be taken.

Agriculture Diesel Technician Track - 470605701

(Offered at HPC, OWC, SEC)

DIT 152	Powertrain for Construction Equipment	3
DIT 153	Powertrain for Construction Equipment Lab	2
DIT 121	Introduction to Maintenance Welding Lab OR	3
IMT 100	Welding for Maintenance AND	(3)
IMT 101	Welding for Maintenance Lab OR	(2)
WLD 120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD 121	Shielded Metal Arc Welding (SMAW) Lab	(2)
	Subtotal	8-10
	Total	62-64

Construction Equipment Technician Track - 470605702

(Offered at OWC, SEC)

DIT 121	Introduction to Maintenance Welding Lab OR	3
IMT 100	Welding for Maintenance AND	(3)
IMT 101	Welding for Maintenance Lab OR	(2)
WLD 120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD 121	Shielded Metal Arc Welding (SMAW) Lab	(2)
DIT 123	Undercarriage Lab	3
DIT 152	Powertrain for Construction Equipment	3
DIT 153	Powertrain for Construction Equipment Lab	2
	Subtotal	11-13
	Total	65-67

Medium and Heavy Truck Technician Track - 470605703

(Offered at ELC, OWC, SEC)

DIT 180	Brakes	3
DIT 181	Brakes Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
	Subtotal	10
	Total	64

Recommended Technical Electives (Program Coordinator Approval required)

DIT 180	Brakes	3
DIT 181	Brakes Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
DIT 121	Introduction to Maintenance Welding Lab OR	3
IMT 100	Welding for Maintenance AND	(3)
IMT 101	Welding for Maintenance Lab OR	(2)
WLD 120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD 121	Shielded Metal Arc Welding (SMAW) Lab	(2)
DIT 123	Undercarriage Lab	3
DIT 152	Powertrain for Construction Equipment	3
DIT 153	Powertrain for Construction Equipment Lab	2
DIT 105	Mechanical Concepts OR	1
PMX 100	Precision Measurement	(3)
DIT 193	Special Problems I	1
DIT 195	Special Problems II	2
DIT 197	Special Problems III	3
DIT 198	Practicum	1
DIT 298	Practicum II	2
DIT 199	Cooperative Education	1
DIT 299	Cooperative Education II	2

(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Diplomas

Agriculture Equipment Technician - 4706054039

(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)

General Education

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social /Behavioral Science, Natural Sciences or Quantitative Reasoning	3
	Subtotal	6

Technical Courses

	Computer/Digital Literacy course OR demonstrated competency	0-3
ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
BEX 100	Basic Electricity for Non-Majors AND	3
BEX 101	Basic Electricity Lab for Non-Majors OR	2
ADX 120	Basic Automotive Electricity AND	(3)
ADX 121	Basic Automotive Electricity Lab OR	(2)

ELT	110	Circuits I	(5)
DIT	103	Preventive Maintenance Lab	2
DIT	110	Introduction to Diesel Engines AND	3
DIT	111	Introduction to Diesel Engines Lab OR	2
ADX	150	Engine Repair AND	(3)
ADX	151	Engine Repair Lab	(2)
DIT	112	Diesel Engine Repair	3
DIT	113	Diesel Engine Repair Lab	2
DIT	121	Introduction to Maintenance Welding Lab OR	3
IMT	100	Welding for Maintenance AND	(3)
IMT	101	Welding for Maintenance Lab OR	(2)
WLD	120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD	121	Shielded Metal Arc Welding (SMAW) Lab	(2)
DIT	140	Hydraulics AND	3
DIT	141	Hydraulics Lab OR	2
FPX	100	Fluid Power AND	(3)
FPX	101	Fluid Power Lab	(2)
DIT	150	Power Trains	3
DIT	151	Power Trains Lab	2
DIT	152	Powertrain for Construction Equipment	3
DIT	153	Powertrain for Construction Equipment Lab	2
DIT	190	Electrical Systems for Diesel Equipment AND	3
DIT	191	Electrical Systems for Diesel Equipment Lab OR	2
ADX	260	Electrical Systems AND	(3)
ADX	261	Electrical Systems Lab	(2)
		Subtotal	44-49
		Total	50-55

Construction Equipment Technician - 4706054019

(Offered at ASC, BSC, HZC, MYC, OWC, SEC, WKC)

General Education

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
	Subtotal	6

Technical Courses

	Computer/Digital Literacy course OR demonstrated competency	0-3	
ADX	170	Climate Control	3
ADX	171	Climate Control Lab	1
BEX	100	Basic Electricity for Non-Majors AND	3
BEX	101	Basic Electricity Lab for Non-Majors OR	2
ADX	120	Basic Automotive Electricity AND	(3)
ADX	121	Basic Automotive Electricity Lab OR	(2)
ELT	110	Circuits I	(5)
DIT	103	Preventive Maintenance Lab	2
DIT	110	Introduction to Diesel Engines AND	3
DIT	111	Introduction to Diesel Engines Lab OR	2
ADX	150	Engine Repair AND	(3)
ADX	151	Engine Repair Lab	(2)
DIT	112	Diesel Engine Repair	3
DIT	113	Diesel Engine Repair Lab	2
DIT	150	Power Trains	3
DIT	151	Power Trains Lab	2
DIT	152	Powertrain for Construction Equipment	3
DIT	153	Powertrain for Construction Equipment Lab	2
DIT	121	Introduction to Maintenance Welding Lab OR	3
IMT	100	Welding for Maintenance AND	(3)
IMT	101	Welding for Maintenance Lab OR	(2)
WLD	120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD	121	Shielded Metal Arc Welding (SMAW) Lab	(2)
DIT	123	Undercarriage Lab	3
DIT	140	Hydraulics AND	3
DIT	141	Hydraulics Lab OR	2
FPX	100	Fluid Power AND	(3)
FPX	101	Fluid Power Lab	(2)
DIT	190	Electrical Systems for Diesel Equipment AND	3

DIT	191	Electrical Systems for Diesel Equipment Lab OR	2
ADX	260	Electrical Systems AND	(3)
ADX	261	Electrical Systems Lab	(2)
		Subtotal	47-52
		Total	53-58

Medium and Heavy Truck Technician - 4706054049

(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, SEC, SMC, WKC)

General Education

Area 1 =	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
	Subtotal	6

Technical Courses

	Computer/Digital Literacy course OR demonstrated competency	0-3	
ADX	170	Climate Control	3
ADX	171	Climate Control Lab	1
BEX	100	Basic Electricity for Non-Majors AND	3
BEX	101	Basic Electricity Lab for Non-Majors OR	2
ADX	120	Basic Automotive Electricity AND	(3)
ADX	121	Basic Automotive Electricity Lab OR	(2)
ELT	110	Circuits I	(5)
DIT	103	Preventive Maintenance Lab	2
DIT	110	Introduction to Diesel Engines AND	3
DIT	111	Introduction to Diesel Engines Lab OR	2
ADX	150	Engine Repair AND	(3)
ADX	151	Engine Repair Lab	(2)
DIT	112	Diesel Engine Repair	3
DIT	113	Diesel Engine Repair Lab	2
DIT	140	Hydraulics AND	3
DIT	141	Hydraulics Lab OR	2
FPX	100	Fluid Power AND	(3)
FPX	101	Fluid Power Lab	(2)
DIT	150	Power Trains	3
DIT	151	Power Trains Lab	2
DIT	160	Steering and Suspension	3
DIT	161	Steering and Suspension Lab	2
DIT	180	Brakes	3
DIT	181	Brakes Lab	2
DIT	190	Electrical Systems for Diesel Equipment AND	3
DIT	191	Electrical Systems for Diesel Equipment Lab OR	2
ADX	260	Electrical Systems AND	(3)
ADX	261	Electrical Systems Lab	(2)
		Subtotal	46-49
		Total	52-55

Recommended Technical Electives (Program Coordinator Approval required)

DIT	180	Brakes	3
DIT	181	Brakes Lab	2
DIT	160	Steering and Suspension	3
DIT	161	Steering and Suspension Lab	2
DIT	121	Introduction to Maintenance Welding Lab OR	3
IMT	100	Welding for Maintenance AND	(3)
IMT	101	Welding for Maintenance Lab OR	(2)
WLD	120	Shielded Metal Arc Welding (SMAW) AND	(3)
WLD	121	Shielded Metal Arc Welding (SMAW) Lab	(2)
DIT	123	Undercarriage Lab	3
DIT	152	Powertrain for Construction Equipment	3
DIT	153	Powertrain for Construction Equipment Lab	2
DIT	105	Mechanical Concepts OR	1
PMX	100	Precision Measurement	(3)
DIT	193	Special Problems I	1
DIT	195	Special Problems II	2
DIT	197	Special Problems III	3

DIT	198	Practicum	1
DIT	298	Practicum II.....	2
DIT	199	Cooperative Education	1
DIT	299	Cooperative Education II	

(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Certificate

Agriculture Equipment Mechanic Helper - 4706053109

(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC,WKC)

ADX	150	Engine Repair AND	3
ADX	151	Engine Repair Lab OR.....	2
DIT	110	Introduction to Diesel Engines AND.....	(3)
DIT	111	Introduction to Diesel Engines Lab.....	(2)
ADX	260	Electrical Systems AND	3
ADX	261	Electrical Systems Lab OR.....	2
DIT	190	Electrical Systems for Diesel Equipment AND.....	(3)
DIT	191	Electrical Systems for Diesel Equipment Lab.....	(2)
DIT	112	Diesel Engine Repair.....	3
DIT	113	Diesel Engine Repair Lab	2
DIT	152	Powertrain for Construction Equipment	3
DIT	153	Powertrain for Construction Equipment Lab.....	2
Total			20

Construction Equipment Mechanic Helper - 4706053019

(Offered at ASC, BSC, HZC, MYC, OWC, SEC,WKC)

ADX	150	Engine Repair AND	3
ADX	151	Engine Repair Lab OR.....	2
DIT	110	Introduction to Diesel Engines AND.....	(3)
DIT	111	Introduction to Diesel Engines Lab.....	(2)
ADX	260	Electrical Systems AND	3
ADX	261	Electrical Systems Lab OR.....	2
DIT	190	Electrical Systems for Diesel Equipment AND.....	(3)
DIT	191	Electrical Systems for Diesel Equipment Lab.....	(2)
DIT	112	Diesel Engine Repair.....	3
DIT	113	Diesel Engine Repair Lab	2
DIT	152	Powertrain for Construction Equipment	3
DIT	153	Powertrain for Construction Equipment Lab.....	2
DIT	123	Undercarriage Lab.....	3
Total			23

Diesel Engine Mechanic - 4706053079

(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC,WKC)

DIT	110	Introduction to Diesel Engines AND.....	3
DIT	111	Introduction to Diesel Engines Lab OR	2
ADX	150	Engine Repair AND	(3)
ADX	151	Engine Repair Lab	(2)
DIT	112	Diesel Engine Repair.....	3
DIT	113	Diesel Engine Repair Lab	2
Electives (Diesel Courses/Industrial Education Core).....			2
Total			12

Diesel Mechanics Assistant - 4706053189

(Offered at BSC, ELC, HZC, MYC, OWC, SEC, SMC,WKC)

DIT	103	Preventive Maintenance Lab	2
DIT	110	Introduction to Diesel Engines	3
DIT	111	Introduction to Diesel Engines Lab.....	2
DIT	112	Diesel Engine Repair.....	3
DIT	113	Diesel Engine Repair Lab	2
DIT	160	Steering and Suspension	3
DIT	161	Steering and Suspension Lab.....	2
DIT	180	Brakes.....	3
DIT	181	Brakes Lab	2
DIT	190	Electrical Systems for Diesel Equipment	3
DIT	191	Electrical Systems for Diesel Equipment Lab.....	2
Total			27

Diesel Steering & Suspension Mechanic - 4706053179

(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC,WKC)

DIT	160	Steering and Suspension	3
DIT	161	Steering and Suspension Lab.....	2
Electives (Diesel Courses/Industrial Education Core).....			7
Total			12

Electrical/Electronics Systems Mechanic - 4706053059

(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC,WKC)

BEX	100	Basic Electricity for Non-Majors AND.....	3
BEX	101	Basic Electricity Lab for Non-Majors OR	2
ADX	120	Basic Automotive Electricity AND.....	(3)
ADX	121	Basic Automotive Electricity Lab OR	(2)
ENG	110	Circuits I	(5)
DIT	190	Electrical Systems for Diesel Equipment AND	3
DIT	191	Electrical Systems for Diesel Equipment Lab OR	2
ADX	260	Electrical Systems AND	(3)
ADX	261	Electrical Systems Lab	(2)
Electives (Diesel Courses/Industrial Education Core).....			2
Total			12

Fluid Power Mechanic - 4706053119

(Offered at ASC, BSC, ELC, HZC, HPC, MYC, OWC, SEC, SMC,WKC)

FPX	100	Fluid Power OR.....	3
DIT	140	Hydraulics	(3)
FPX	101	Fluid Power Lab OR	2
DIT	141	Hydraulics Lab	(2)
Electives (Diesel Courses/Industrial Education Core).....			7
Total			12

Heavy Duty Brake Mechanic - 4706053039

(Offered at ASC, BSC, ELC, HZC, HPC, MYC, OWC, SEC, SMC,WKC)

DIT	180	Brakes.....	3
DIT	181	Brakes Lab	2
Electives (Diesel Courses/Industrial Education Core).....			7
Total			12

Heavy Duty Drive Train Mechanic - 4706053089

(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC,WKC)

DIT	150	Power Trains	3
DIT	151	Power Trains Lab	2
Electives (Diesel Courses/Industrial Education Core).....			7
Total			12

Medium and Heavy Truck Mechanic Helper - 4706053149

(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC,WKC)

ADX	120	Basic Automotive Electricity AND.....	3
ADX	121	Basic Automotive Electricity Lab OR	2
BEX	100	Basic Electricity for Non-Majors AND.....	(3)
BEX	101	Basic Electricity Lab for Non-Majors OR	(2)
ELT	110	Circuits I	(5)
ADX	150	Engine Repair AND	3
ADX	151	Engine Repair Lab OR.....	2
DIT	110	Introduction to Diesel Engines AND.....	(3)
DIT	111	Introduction to Diesel Engines Lab.....	(2)
ADX	260	Electrical Systems AND	3
ADX	261	Electrical Systems Lab OR.....	2
DIT	190	Electrical Systems for Diesel Equipment AND.....	(3)
DIT	191	Electrical Systems for Diesel Equipment Lab.....	(2)
DIT	112	Diesel Engine Repair.....	3
DIT	113	Diesel Engine Repair Lab	2
DIT	160	Steering and Suspension	3
DIT	161	Steering and Suspension Lab.....	2
DIT	180	Brakes.....	3
DIT	181	Brakes Lab	2
Total			30

Mobile Air Conditioning Mechanic - 4706053169

(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

ADX	170	Climate Control	3
ADX	171	Climate Control Lab	1
		Electives (Diesel Courses/Industrial Education Core).....	8
		Total	12

Preventive Maintenance Mechanic - 4706053199

(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

DIT	103	Preventive Maintenance Lab	2
		Electives (Diesel Courses/Industrial Education Core).....	11
		Total	13

Undercarriage Mechanic - 4706053099

(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

DIT	123	Undercarriage Lab.....	3
		Electives (Diesel Courses/Industrial Education Core).....	9
		Total	12

Digital Game and Simulation Design

Provides students with a thorough understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, rigging, scripting and game setup using state-of-the-art software development tools.

Completing students will have developed the skills necessary to create sophisticated 3D graphics and a simple application that can be used for games and simulations.

Certificate

Digital Game and Simulation Design - 1108033029

(Offered at JFC)

		Computer/Digital Literacy	0-3
DGD	131	3D Texturing and Lighting I.....	3
DGD	132	Introduction to Digital 3D Graphics	3
DGD	231	3D Texturing and Lighting II.....	3
DGD	232	3D Character Development	3
DGD	233	3D Character Rigging.....	3
DGD	234	3D Animation	3
DGD	235	3D Special Effects	3
DGD	236	Game Engines I	3
DGD	237	Game Engines II	3
		Total	27-30

Digital Printing Technology

The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.

Certificate

3D Printing Technician- Level I - 1506073059

(Offered at SMC)

DPT	100	Introduction to 3D Printing Technology OR.....	3
DPT	102	3D Printing Technology Fundamentals AND.....	(2)
CIT	105	Introduction to Computers	(3)
BAS	160	Introduction to Business OR	3
BAS	170	Entrepreneurship	(3)
DPT	150	Introduction to Engineering Mechanics for 3D Printing	3
DPT	280	Special Projects for 3D Printing, Level I.....	1
		Elective: Any technical, entry level course within a field where 3D printing applications exist.....	3
		Elective: Any technical, entry level course within a field where 3D printing applications exist.....	3
		Total	16-18

Education

The Associate in Applied Science Degree (AAS) – Education: Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.

Associate in Applied Science

Education - 1315017019

Educator Preparation Track - 131501703

(Offered at BLC, BSC, ELC, GTW, JFC, SEC)

General Education

ENG	101	Writing I	3
ENG	102	Writing II	3
COM	181	Basic Public Speaking	3
		OR	
COM	252	Introduction to Interpersonal Communications.....	(3)
–		Arts and Humanities ¹	3-4
HIS	108	History of the United States Through 1865	3
		OR	
HIS	109	History of the United States Since 1865	(3)
MAT	146	Contemporary College Mathematics.....	3
		OR	
MAT	150	College Algebra	(3)
		OR	
MA	109	College Algebra	(3)
		OR	
MA	111	Contemporary Mathematics	(3)
		Natural Sciences ²	6
PSY	110	General Psychology	3
		Social/Behavioral Sciences ¹	6
		Subtotal	34-35

Technical Core or Support Core (Common)

	Digital Literacy ³	3
EDU 201	An Introduction to American Education.....	3
EDP 202	Human Development and Learning	3
EDP 203	Teaching Exceptional Learners in Regular Classrooms OR ...	3
EDP 260	Motivation and Classroom Management ⁴	(3)
	Total Common	12

Technical or Support Courses

Technical or Support Electives	15
Total Credit Hours	61-62

- 1 At least one course must be selected from the identified Cultural Studies course list.
- 2 Must include at least one Natural Science course with a laboratory experience.
- 3 Students must fulfill the Digital Literacy requirement by means specified in the KCTCS Catalog. A student who fulfills the Digital Literacy requirement by a means other than earning credit for an approved KCTCS digital literacy course must take three (3) credit hours of coursework approved by the program coordinator.
- 4 EDP 260 is intended for Jefferson Community & Technical College students transferring to the University of Louisville (excluding Special Education majors.)

Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies. Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS-Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 4 credit hours/EMS 200 Introduction to Paramedicine; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in

ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab; 1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 215 Clinical Experience I; 1 credit hour/EMS 225 Clinical Experience II; 2 credit hours/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may choose to change their career path while in the program without reapplying for admission to the college.

Student can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

Associate in Applied Science

Emergency Medical Services - Paramedic - 5109047029 (Offered at GTW, HPC, HZC, JFC, MDC, OWC, SMC)

General Education:

ENG 101	Writing I	3
PSY 110	General Psychology	3
BIO 135	Basic Anatomy and Physiology with Laboratory*	4
	Quantitative Reasoning	3
	Oral Communications	3
	Heritage or Humanities	3
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin	(3)
	Digital Literacy	0-3
EMS 200	Introduction to Paramedicine	4
EMS 210	Emergency Pharmacology	3
EMS 211	Fundamentals Lab	2
EMS 215	Clinical Experience I.....	1
EMS 220	Cardiovascular Emergencies	3
EMS 221	Cardiac and Trauma Lab	1
EMS 225	Clinical Experience II	1
EMS 230	Traumatic Emergencies.....	4
EMS 231	Medical Lab.....	1
EMS 235	Clinical Experience III	2
EMS 240	Medical Emergencies I.....	3
EMS 250	Medical Emergencies II.....	3
EMS 260	Special Populations	3
EMS 270	EMS Operations	1
EMS 275	Seminar in Advanced Life Support (ALS).....	1
EMS 285	Field Internship & Summation	5-6
AHS 201	Management Principles for Allied Health Providers.....	3
	Total Credits	63-67

*BIO 137 & BIO 139 may be substituted for BIO 135

Certificate

Emergency Medical Services - Paramedic - 5109043040 (Offered at BLC, HZC, GTW, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

BIO 135	Basic Anatomy and Physiology with Laboratory*	4
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology Greek/Latin	(3)
FHM 100	Dosage Calculations OR.....	2
MAT 110	Applied Mathematics.....	(3)
EMS 200	Introduction to Paramedicine	4
EMS 210	Emergency Pharmacology	3
EMS 211	Fundamentals Lab	2
EMS 215	Clinical Experience I.....	1
EMS 220	Cardiovascular Emergencies	3
EMS 221	Cardiac and Trauma Lab	1
EMS 225	Clinical Experience II	1

EMS 230	Traumatic Emergencies	4
EMS 231	Medical Lab.....	1
EMS 235	Clinical Experience III	2
EMS 240	Medical Emergencies I.....	3
EMS 250	Medical Emergencies II.....	3
EMS 260	Special Populations	3
EMS 270	EMS Operations	1
EMS 275	Seminar in Advanced Life Support (ALS).....	1
EMS 285	Field Internship & Summation	5-6
	Total Credits	47-49

*BIO 137 & BIO 139 may be substituted for BIO 135

Electrocardiogram Technician – 5109043060

(Offered at MDC)

EMS 150	Electrocardiogram Technology	5
	Total Credits	5

Energy Management

The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute's Building Specialist certificate, The North American Board of Certified Energy Practitioners' Entry Level Solar certification, the Leadership in Energy and Environmental Design's Green Associate certification, and the Environmental Protection Agency's Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

Associate in Applied Science

Energy Management -1505037039

(Offered at MDC)

General Education

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/Humanities	3
Written Communication	3
Subtotal	15

Technical Core

ENM 101	Energy Industry Fundamentals	9
ENM 111	Sustainability Management OR	3
	One Study Abroad/Overseas Experience course (HRS 200,(3) IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator).	
ENM 121	Solar Design and Applications	3
ENM 200	Commercial Energy Analysis	3
ENM 210	Smart Grid Applications	3
AIT 220	The Integrated Power Grid	3
ENM 230	Building Automation	3
EGY 240	Energy Analysis and Efficiency	4
ENM 250	Regulatory and Environmental Issues	3
ENM 260	Air Conditioning and Refrigeration Regulations	3

BRX 120	Basic Blueprint Reading	3
BAS 160	Introduction to Business	3
BAS 283	Principles of Management OR	3
BAS 284	Applied Management Skills	(3)
	Subtotal	46
	Total Credits	61

Diploma

Energy Management - 1505034019

(Offered at MDC)

General Education

Natural Sciences	3
Written/Oral Communications	3
Subtotal	6

Technical Core

ENM 101	Energy Industry Fundamentals	9
ENM 111	Sustainability Management OR	3
	One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator).....	(3)
ENM 121	Solar Design and Applications	3
ENM 200	Commercial Energy Analysis	3
ENM 210	Smart Grid Applications	3
AIT 220	The Integrated Power Grid	3
ENM 230	Building Automation	3
EGY 240	Energy Analysis and Efficiency	4
ENM 250	Regulatory and Environmental Issues	3
ENM 260	Air Conditioning and Refrigeration Regulations	3
BRX 120	Basic Blueprint Reading	3
BAS 160	Introduction to Business	3
BAS 283	Principles of Management OR	3
BAS 284	Applied Management Skills	(3)
	Subtotal	46
	Total Credits	52

Certificates

Fundamentals of Energy Production – 1505033089

(Offered at MDC)

ENM 101	Energy Industry Fundamentals	9
	Total Credits	9

Commercial Energy Analysis – 1505033099

(Offered at MDC)

ENM 111	Sustainability Management OR	3
	One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator).....	(3)
ENM 200	Commercial Energy Analysis	3
ENM 230	Building Automation	3
ENM 250	Regulatory and Environmental Issues	3
ENM 260	Air Conditioning and Refrigeration Regulations	3
	Total Credits	15

Sustainable Energy - 1505033109

(Offered at MDC)

ENM	111	Sustainability Management OR 3
		One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management Program coordinator)..... (3)
ENM	121	Solar Design and Applications 3
AIT	220	The Integrated Power Grid 3
ENM	210	Smart Grid Applications 3
		Total Credits 12

Energy Technologies

Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as an entry-level utility apprentice, line maintenance technician, transformer/relay technician, fiber optic technician, outside plant fiber optic technician, network communications technician, voice and data wiring technician, or renewable energy and energy efficiency specialist. The degree provides a broad foundation across many facets of utility and communications technologies, resulting in a multi-skilled technician valued by the workforce. Hands-on instruction is used to teach students aspects of smart grid technology, fiber optics installation, utility operation, line maintenance, underground operations, substation operations, transmission distribution, solar/photovoltaic systems installation, design and placement of wind energy systems, energy efficiency analysis, electrical energy efficiency control technologies, and job safety. The technical certificate tracks are complemented by an operations management certificate, which provides background knowledge of business operations.

Associate in Applied Science

Energy Technologies - 1505037029

(Offered at GTW)

General Education

ENG	101	Writing I 3
MAT	110	Applied Mathematics OR 3
		Any Higher Level Quantitative Reasoning Courses..... (3)
PHY	171	Applied Physics OR 4
		Natural Sciences (3)
		Heritage / Humanities..... 3
		Oral Communications 3
		Social/Behavioral Sciences 3
		Subtotal 18-19

Core

BAS	160	Introduction to Business 3
EET	150	Transformers 2
EET	151	Transformers Lab 1
ELT	110	Circuits I 5
ETT	110	Voice and Data Installer Level I 4
ISX	101	Introduction to Industrial Safety 3
EGY	170	Energy Utility Technologies 4
EGY	120	Outside Plant Communications 4
		Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.)..... 0-3
		Subtotal 26-29

Technical Electives

		Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator 16
COE	199	Cooperative Education (up to 8 credit hours)..... 16
DFT	122	Introduction to Computer Aided Drafting 16
		Subtotal 16
		Total Credits 60-64

Certificate

Energy Efficiency Electrical Controls Technician – 1505033049

(Offered at GTW)

EET	154	Electrical Construction I 2
EET	155	Electrical Construction I Lab 2
EET	250	National Electric Code 4
EET	252	Electrical Construction II 2
EET	253	Electrical Construction II Lab 2
ELT	110	Circuits I 5
EGY	220	Energy Efficiency Electrical Controls 4
		Total 21

Outside Plant Technician – 1505033039

(Offered at GTW)

ELT	110	Circuits I 5
ETT	110	Voice and Data Installer Level I 4
ISX	101	Introduction to Industrial Safety 3
EGY	120	Outside Plant Communications 4
		Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.)..... 0-3
		Total 19-21

Energy Utility Technician – 1505033029

(Offered at GTW)

EET	150	Transformers 2
EET	151	Transformers Lab 1
ELT	110	Circuits I 5
ISX	101	Introduction to Industrial Safety 3
EGY	170	Energy Utility Technologies 4
		Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.)..... 0-3
		Total 15-18

Wind System Technologies – 1505033059

(Offered at BSC, BLC, GTW)

ELT	110	Circuits I 5
IMT	150	Maintaining Industrial Equipment 3
IMT	151	Maintaining Industrial Equipment Lab 2
EGY	250	Wind / Turbine Technologies 4
		Total 14

Solar/Photovoltaic Technologies – 1505033069

(Offered at BSC, BLC, GTW)

EET	154	Electrical Construction I 2
EET	155	Electrical Construction I Lab 2
ELT	110	Circuits I 5
EGY	230	Solar / Photovoltaic Technologies 4
		Total 13

Energy Efficiency and Analysis – 1505033079

(Offered at BSC, BLC, GTW)

ACR	170	Heat Load / Duct Design	3
EGY	240	Energy Efficiency and Analysis	4
		Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.).....	0-3
		Total	7-10

Computer Maintenance Track – 150399703

(Offered at BLC, ELC, JFC, SMC)

CIT	111	Computer Hardware and Software OR.....	4
ELT	234	Computer Hardware Maintenance AND	(3)
ELT	232	Computer Software Maintenance	(3)
ELT	220	Digital II.....	3
CIT	160	Introduction to Networking Concepts OR.....	4
CIT	161	Networking Fundamentals	(4)
		Technical Electives *	9
		Subtotal:	20-22
		Total	62-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Apprenticeship Track – 150399701

(Offered at JFC)

APS	201	Apprenticeship Studies	24
		Total	66-68

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Mechanical Track – 150399706

(Offered at JFC, OWC)

ELT	122	Mechanical Power Transmission Systems AND	3
ELT	124	Mechanical Power Transmission Systems Lab OR.....	1
IMT	150	Maintaining Industrial Equipment I AND	(3)
IMT	151	Maintaining Industrial Equipment I Lab	(2)
ELT	265	Applied Fluid Power	3
CAD	200	Intermediate Computer Aided Drafting	4
		Technical Electives *	8
		Subtotal:	19-20
		Total	61-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Industrial Track – 150399704

(Offered at BLC, HPC, JFC, OWC)

ELT	214	Devices II.....	4
ELT	220	Digital II.....	3
ELT	244	Electrical Machinery and Controls OR.....	(4)
EET	270	Electrical Motor Controls I AND	(2)
EET	271	Electrical Motor Controls I Lab.....	(2)
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND.....	(2)
EET	277	Programmable Logic Controllers Lab	(2)
		Technical Electives *	9
		Subtotal:	24
		Total	66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Aided Design Track – 150399702

(Offered at HPC, JFC)

CAD	150	Programming in CAD OR	4
ELT	290	Selected Topics in Engineering Technology	(3-4)
CAD	200	Intermediate Computer Aided Drafting	4
CAD	201	Advanced 3D Modeling.....	4
		Technical Electives *	12
		Subtotal:	23-24
		Total	65-68

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Engineering and Electronics Technology

The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Engineering and Electronics Technology - 1503997019

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SKY, SMC)

General Education

MAT	150	College Algebra OR.....	3
MAT	126	Technical Algebra and Trigonometry OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)
PHY	171	Applied Physics OR	4
		Other Natural Sciences with Consent of Program Coordinator.....	(3)
ENG	101	Writing I	3
		Social/Behavioral Sciences	3
		Oral Communications	3
		Heritage/Humanities	3
		Subtotal:	18-19

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I.....	3
CAD	100	Introduction to Computer Aided Design OR.....	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3
		NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.	
		Subtotal:	24-25

Electronics Track – 150399707

(Offered at BLC, ELC, HPC, JFC, OWC, SMC)

ELT	214	Devices II.....	4
ELT	220	Digital II.....	3
		Technical Electives *	13
		Subtotal:	20
		Total	62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Robotics and Automation Track – 150399705

(Offered at BLC, HPC, JFC, SKY)

ELT	265	Applied Fluid Power	3
ELT	260	Robotics and Industrial Automation	5
ELT	244	Electrical Machinery and Controls OR	4
EET	270	Electrical Motor Controls I AND	(2)
EET	271	Electrical Motor Controls I Lab	(2)
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND	(2)
EET	277	Programmable Logic Controllers Lab	(2)
		Technical Electives *	8
		Subtotal:	24
		Total	66-68

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications Track – 150399708

(Offered at BLC, ELC)

ELT	214	Devices II	4
ELT	220	Digital II	3
ELT	240	Communications Electronics	6
		Technical Electives *	9
		Subtotal:	22
		Total	64-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Instrumentation Track – 150399709

(Offered at ELC)

ELT	220	Digital II	3
ISM	102	Fundamentals of Instrumentation	4
ISM	210	Fundamentals of Process Control	4
		Technical Electives *	7
		Subtotal:	18
		Total	60-62

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Diplomas

Electronics – 1503994019

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR	3
MAT	126	Technical Algebra and Trigonometry OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I	3
CAD	100	Introduction to Computer Aided Design OR	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3

NOTE: If a student takes CAD 103 to meet

Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit

		not used in the selected track	(3)
COED	198	Practicum OR	1-2
COE	199	Cooperative Education OR	(1-2)
		Equivalent Course with Consent of Program Coordinator(1-2)	
		Subtotal:	25-27

ELT	214	Devices II	4
ELT	220	Digital II	3
		Technical Electives *	13
		Subtotal:	20

Total **51-53**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Apprenticeship- 1503994059

(Offered at JFC)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR	3
MAT	126	Technical Algebra and Trigonometry OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I	3
CAD	100	Introduction to Computer Aided Design OR	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3

NOTE: If a student takes CAD 103 to meet

Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit

		not used in the selected track	(3)
COED	198	Practicum OR	1-2
COE	199	Cooperative Education OR	(1-2)
		Equivalent Course with Consent of Program Coordinator(1-2)	
		Subtotal:	25-27

APS	201	Apprenticeship Studies	24
		Subtotal:	24

Total **55-57**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Industrial Electronics – 1503994079

(Offered at BLC, HPC, JFC, OWC, SEC)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR	3
MAT	126	Technical Algebra and Trigonometry OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 210	Devices I	4
ELT 120	Digital I	3
CAD 100	Introduction to Computer Aided Design OR	3
CAD 103	CAD Fundamentals OR	(4)
BRX 120	Basic Blueprint Reading OR	(3)
	Equivalent Course with Consent of Program Coordinator(3-4)	
ELT 289	Engineering and Electronics Technology Capstone Course	1
	Digital Literacy	3
	NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track	(3)
COED 198	Practicum OR	1-2
COE 199	Cooperative Education OR	(1-2)
	Equivalent Course with Consent of Program Coordinator(1-2)	
	Subtotal:	25-27
ELT 214	Devices II	4
ELT 220	Digital II	3
ELT 244	Electrical Machinery and Controls OR	4
EET 270	Electrical Motor Controls I AND	(2)
EET 271	Electrical Motor Controls I Lab	(2)
ELT 250	Programmable Logic Controllers OR	4
EET 276	Programmable Logic Controllers AND	(2)
EET 277	Programmable Logic Controllers Lab	(2)
	Technical Electives *	9
	Subtotal:	24
	Total	55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Engineering Design Technician – 1503994089

(Offered at JFC)

General Education:

Area 1:	Written Communication or Oral Communications	3
	AND	
Area 2:		
MAT 150	College Algebra OR	3
MAT 126	Technical Algebra and Trigonometry OR	(3)
	Higher Level Quantitative Reasoning Course	(3)
	Subtotal:	6

Core:

ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 210	Devices I	4
ELT 120	Digital I	3
CAD 100	Introduction to Computer Aided Design OR	3
CAD 103	CAD Fundamentals OR	(4)
BRX 120	Basic Blueprint Reading OR	(3)
	Equivalent Course with Consent of Program Coordinator(3-4)	
ELT 289	Engineering and Electronics Technology Capstone Course	1
	Digital Literacy	3
	NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track	(3)
COED 198	Practicum OR	1-2
COE 199	Cooperative Education OR	(1-2)
	Equivalent Course with Consent of Program Coordinator(1-2)	
	Subtotal:	25-27
CAD 150	Programming in CAD OR	4
ELT 290	Selected Topics in Engineering Technology OR	(3-4)

CAD 200	Intermediate Computer Aided Drafting	4
CAD 201	Advanced 3D Modeling	4
	Technical Electives *	12
	Subtotal:	23-24
	Total	54-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications – 1503994029

(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:

Area 1:	Written Communication or Oral Communications	3
	AND	
Area 2:		
MAT 150	College Algebra OR	3
MAT 126	Technical Algebra and Trigonometry OR	(3)
	Higher Level Quantitative Reasoning Course	(3)
	Subtotal:	6

Core:

ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 210	Devices I	4
ELT 120	Digital I	3
CAD 100	Introduction to Computer Aided Design OR	3
CAD 103	CAD Fundamentals OR	(4)
BRX 120	Basic Blueprint Reading OR	(3)
	Equivalent Course with Consent of Program Coordinator(3-4)	
ELT 289	Engineering and Electronics Technology Capstone Course	1
	Digital Literacy	3
	NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track	(3)
COED 198	Practicum OR	1-2
COE 199	Cooperative Education OR	(1-2)
	Equivalent Course with Consent of Program Coordinator(1-2)	
	Subtotal:	25-27
ELT 214	Devices II	4
ELT 220	Digital II	3
ELT 240	Communications Electronics	6
	Technical Electives *	11
	Subtotal:	24
	Total	55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Maintenance – 1503994049

(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:

Area 1:	Written Communication or Oral Communications	3
	AND	
Area 2:		
MAT 150	College Algebra OR	3
MAT 126	Technical Algebra and Trigonometry OR	(3)
	Higher Level Quantitative Reasoning Course	(3)
	Subtotal:	6

Core:

ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 210	Devices I	4
ELT 120	Digital I	3
CAD 100	Introduction to Computer Aided Design OR	3

CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3
		NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.....	(3)
COED	198	Practicum OR	1-2
COE	199	Cooperative Education OR	(1-2)
		Equivalent Course with Consent of Program Coordinator(1-2)	
		Subtotal:	25-27
CIT	111	Computer Hardware and Software OR.....	4
ELT	234	Computer Hardware Maintenance AND	(3)
ELT	232	Computer Software Maintenance	(3)
ELT	220	Digital II.....	3
CIT	160	Introduction to Networking Concepts OR.....	(4)
CIT	161	Networking Fundamentals	(4)
		Technical Electives *	9
		Subtotal:	20-22
		Total	51-55

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Mechanical – 1503994069

(Offered at JFC, OWC)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR.....	3
MAT	126	Technical Algebra and Trigonometry OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I.....	3
CAD	100	Introduction to Computer Aided Design OR.....	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3
		NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.....	(3)
COED	198	Practicum OR.....	1-2
COE	199	Cooperative Education OR	(1-2)
		Equivalent Course with Consent of Program Coordinator(1-2)	
		Subtotal:	25-27
ELT	122	Mechanical Power Transmission Systems AND	3
ELT	124	Mechanical Power Transmission Systems Lab OR.....	1
IMT	150	Maintaining Industrial Equipment I AND	(3)
IMT	151	Maintaining Industrial Equipment I Lab	(2)
ELT	265	Applied Fluid Power	3
BRX	120	Basic Blueprint Reading	3
CAD	200	Intermediate Computer Aided Drafting	4
		Technical Electives *	8
		Subtotal:	22-23
		Total	53-56

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Robotics and Automation – 1503994039

(Offered at BLC, BSC, HPC, JFC, OWC, SKY)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR.....	3
MAT	126	Technical Algebra and Trigonometry OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I.....	3
CAD	100	Introduction to Computer Aided Design OR.....	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3
		NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.....	(3)
COED	198	Practicum OR.....	1-2
COE	199	Cooperative Education OR	(1-2)
		Equivalent Course with Consent of Program Coordinator(1-2)	
		Subtotal:	25-27
ELT	265	Applied Fluid Power	3
ELT	260	Robotics and Industrial Automation	5
ELT	244	Electrical Machinery and Controls OR	4
EET	270	Electrical Motor Controls I AND.....	(2)
EET	271	Electrical Motor Controls I Lab.....	(2)
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND.....	(2)
EET	277	Programmable Logic Controllers Lab	(2)
		Technical Electives *	8
		Subtotal:	24
		Total	55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Instrumentation – 1503994099

(Offered at ELC)

General Education:

Area 1:	Written Communication or Oral Communications	3	
	AND		
Area 2:			
MAT	150	College Algebra OR.....	3
MAT	126	Technical Algebra and Trigonometry OR.....	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal:	6

Core:

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	120	Digital I.....	3
CAD	100	Introduction to Computer Aided Design OR.....	3
CAD	103	CAD Fundamentals OR	(4)
BRX	120	Basic Blueprint Reading OR	(3)
		Equivalent Course with Consent of Program Coordinator(3-4)	
ELT	289	Engineering and Electronics Technology Capstone Course....	1
		Digital Literacy	3

NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track..... (3)

COED 198	Practicum OR.....	1-2
COE 199	Cooperative Education OR.....	(1-2)
	Equivalent Course with Consent of Program Coordinator(1-2)	
	Subtotal:	25-27
ELT 220	Digital II.....	3
ISM 102	Fundamentals of Instrumentation.....	4
ISM 210	Fundamentals of Process Control.....	4
	Technical Electives *.....	9
	Subtotal:	20
	Total	51-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Digital Telephony - 1503994109

General Education:

Area 1:	Written Communication or Oral Communications.....	3
	AND	
Area 2:		
MAT 150	College Algebra OR.....	3
MAT 126	Technical Algebra and Trigonometry OR.....	(3)
	Higher Level Quantitative Reasoning Course.....	(3)
	Subtotal:	6

Core:

ELT 110	Circuits I.....	5
ELT 114	Circuits II.....	5
ELT 210	Devices I.....	4
ELT 120	Digital I.....	3
CAD 100	Introduction to Computer Aided Design OR.....	3
CAD 103	CAD Fundamentals OR.....	(4)
BRX 120	Basic Blueprint Reading OR.....	(3)
	Equivalent Course with Consent of Program Coordinator(3-4)	
ELT 289	Engineering and Electronics Technology Capstone Course....	1
	Digital Literacy.....	3
	NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.....	(3)
COED 198	Practicum OR.....	1-2
COE 199	Cooperative Education OR.....	(1-2)
	Equivalent Course with Consent of Program Coordinator(1-2)	
	Subtotal:	25-27
ELT 222	Mechanics of Telephony.....	3
ELT 224	Basic Telecoms Installation and Maintenance.....	3
ELT 226	Safety in the Workplace OR.....	2
ISX 100	Industrial Safety OR.....	(3)
	Equivalent Course with Consent of Program Coordinator..	(3)
ELT 214	Devices II.....	4
ELT 220	Digital II.....	3
	Subtotal	15-16
	Total	46-49

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Certificates

Electronics Tester – 1503993089

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SKY, SMC)

ELT 110	Circuits I.....	5
ELT 114	Circuits II.....	5
ELT 120	Digital I.....	3
	Total	13

Electronics Technician –1503993069

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SMC)

ELT 110	Circuits I.....	5
ELT 114	Circuits II.....	5
ELT 210	Devices I.....	4
ELT 214	Devices II.....	4
ELT 120	Digital I.....	3
ELT 220	Digital II.....	3
	Total	24

Maintenance Technician – 1503993059

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)

CAD 100	Introduction to Computer Aided Design OR.....	3
CAD 103	CAD Fundamentals OR.....	(4)
BRX 120	Basic Blueprint Reading OR.....	(3)
	Equivalent Course with Consent of Program Coordinator(3-4)	
ELT 110	Circuits I.....	5
ELT 114	Circuits II.....	5
ELT 265	Applied Fluid Power.....	3
ELT 244	Electrical Machinery and Controls OR.....	4
EET 270	Electrical Motor Controls I AND.....	(2)
EET 271	Electrical Motor Controls I Lab.....	(2)
ELT 250	Programmable Logic Controllers OR.....	4
EET 276	Programmable Logic Controllers AND.....	(2)
EET 277	Programmable Logic Controllers Lab.....	(2)
	Total	24-25

Robotics and Automation Technician – 1503993099

(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY, SMC)

ELT 110	Circuits I.....	5
ELT 114	Circuits II.....	5
ELT 210	Devices I.....	4
ELT 120	Digital I.....	3
ELT 265	Applied Fluid Power.....	3
ELT 260	Robotics and Industrial Automation.....	5
ELT 244	Electrical Machinery and Controls OR.....	4
EET 270	Electrical Motor Controls I AND.....	(2)
EET 271	Electrical Motor Controls I Lab.....	(2)
ELT 250	Programmable Logic Controllers OR.....	4
EET 276	Programmable Logic Controllers AND.....	(2)
EET 277	Programmable Logic Controllers Lab.....	(2)
	Total	33

Digital Telephony Technician – 1503993119

(Offered at BSC, JFC, SEC)

ELT 222	Mechanics of Telephony.....	3
ELT 224	Basic Telecoms Installation and Maintenance.....	3
ELT 226	Safety in the Workplace OR.....	2
ISX 100	Industrial Safety.....	(3)
ELT 110	Circuits I.....	5
ELT 120	Digital I.....	3
	Digital Literacy.....	3
	Total	19-20

Computer Maintenance Technician – 1503993029

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SMC)

ELT 110	Circuits I.....	5
ELT 120	Digital I.....	3
	Digital Literacy.....	3
CIT 111	Computer Hardware and Software OR.....	4
ELT 234	Computer Hardware Maintenance AND.....	(3)
ELT 232	Computer Software Maintenance.....	(3)
	Total	15-17

Industrial Electronics Technician I – 1503993129

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	120	Digital I	3
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND	(2)
EET	277	Programmable Logic Controllers Lab	(2)
		Total	17

Industrial Electronics Technician II – 1503993139

(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	214	Devices II	4
ELT	120	Digital I	3
ELT	220	Digital II	3
ELT	244	Electrical Machinery and Controls OR	4
EET	270	Electrical Motor Controls I AND	(2)
EET	271	Electrical Motor Controls I Lab	(2)
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND	(2)
EET	277	Programmable Logic Controllers Lab	(2)
		Total	32

Mechanical Technician – 1503993149

(Offered at BSC, HPC, JFC, OWC, SEC)

CAD	100	Introduction to Computer Aided Design OR Equivalent Course with Consent of Program Coordinator(3-4)	3
ELT	122	Mechanical Power Transmission Systems AND	3
ELT	124	Mechanical Power Transmission Systems Lab OR	1
IMT	150	Maintaining Industrial Equipment I AND	(3)
IMT	151	Maintaining Industrial Equipment I Lab	(2)
ELT	265	Applied Fluid Power	3
BRX	120	Basic Blueprint Reading	3
CAD	200	Intermediate Computer Aided Drafting	4
		Total	17-19

Automation Technician – 1503993229

(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY)

ELT	110	Circuits I	5
ELT	244	Electrical Machinery and Controls OR	4
EET	270	Electrical Motor Controls I AND	(2)
EET	271	Electrical Motor Controls I Lab	(2)
ELT	250	Programmable Logic Controllers OR	4
EET	276	Programmable Logic Controllers AND	(2)
EET	277	Programmable Logic Controllers Lab	(2)
ELT	265	Applied Fluid Power	3
		Total	16

Communications Technician – 1503993039

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)

ELT	110	Circuits I	5
ELT	114	Circuits II	5
ELT	210	Devices I	4
ELT	214	Devices II	4
ELT	120	Digital I	3
ELT	240	Communications Electronics	6
		Total	27

Instrumentation Technician – 1503993249

(Offered at BSC, ELC, JFC, OWC, SEC)

ELT	110	Circuits I OR	5
EET	119	Basic Electricity OR	(5)
IMT	110	IMT Electrical Principles AND	(3)

IMT	111	IMT Electrical Principles Lab	(2)
ISM	102	Fundamentals of Instrumentation	4
ISM	210	Fundamentals of Process Control	4
		Total	13

CAD Technician – 1503993239

(Offered at HPC, JFC, OWC, SEC, SKY)

CAD	100	Introduction to CAD	3
CAD	200	Intermediate Computer Aided Drafting	4
		Total Credits	7

*Technical Electives: Any EET, ENGT, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students' ability to function effectively in a variety of job situations. Graduates of this program will be prepared to sample and analyze air, water and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals. Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator's designee.

Associate in Applied Science

Environmental Science Technology - 1505077019

(Offered at BLC)

ENG	101	Writing I*	3
ENG	102	Writing II*	3
MAT	150	College Algebra*	3
COM	181	Basic Public Speaking OR	3

COM	252	Intro to Interpersonal Communications*	(3)
		Social/Behavioral Sciences Course*	3
		Digital Literacy	3
		Heritage/Humanities Course	3
BIO	112	Introduction to Biology*	3
EST	150	Introductory Ecology*	4
CHE	170	General College Chemistry I*	4
CHE	175	General College Chemistry Lab I*	1
EST	160	Hydrologic Geology*	3
EST	161	Hydrologic Geology Lab*	1
EST	170	Environmental Sampling Lab	2
EST	220	Pollution of Aquatic Ecosystems	3
EST	230	Aquatic Chemistry Lab	2
EST	240	Sources and Effects of Air Pollution	4
EST	250	Solid and Hazardous Waste Management	3
EST	260	Environmental Analysis Lab	2
EST	270	Environmental Law and Regulation	3
EST	290	Applied Projects in Environmental Science Technology	2
		Program Elective	3
		Total Credits	61

Technical Electives

ACH	195	Computer-Aided Drafting I	3
BTN	101	Introduction to Biotechnology	1
BTN	201	Biotechnology Techniques I	4
BTN	202	Biotechnology Techniques II	4
CAD	100	Intro to Computer Aided Design	3
CET	211	Surveying	4
CHE	180	General College Chemistry II*	4
CHE	185	General College Chemistry Lab II*	1
CIT	234	Advanced Productivity Software	3
COE	199	Cooperative Education (Internship)	1-3
ECO	201	Principles of Microeconomics*	3
ENG	203	Business Writing	3
ENG	204	Technical Writing	3
EST	299	Selected Topics in EST	1-3
GLY	101	Physical Geology*	3
GLY	111	Physical Geology Laboratory*	1
PHY	151	Introductory Physics I*	3
STA	210	Statistics: A Force in Human Judgement*	3

Courses not on this list may be approved at the coordinator's discretion.

* Satisfies General Education requirement for A.S degrees

Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

Certificates

Hazardous Materials Technician - 1505073019

(Offered at BLC)

CPU	100	Introduction to Computers	3
ENV	100	Environmental Mathematics	3
ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	120	Environmental Chemistry	3
ENV	121	Environmental Chemistry Lab	1
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	260	Hazardous Materials	6
ENV	261	Hazardous Materials Lab	3
ENV	270	Treatment and Disposal Technologies	3
TEC	200	Technical Communications	3

Electives:

ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
		Total Credits	37

Waste Processing Attendant - 1505073029

ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	260	Hazardous Materials	6
ENV	261	Hazardous Materials Lab	3

Electives:

ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
		Total Credits	21

Wastewater Treatment Plant Attendant - 1505073039

ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	290	Wastewater Treatment Technology	6
ENV	291	Wastewater Treatment Technology Lab	2

Electives:

ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
		Total Credits	20

Wastewater Treatment Plant Operator - 1505073049

CPU	100	Introduction to Computers	3
ENV	100	Environmental Mathematics	3
ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	120	Environmental Chemistry	3
ENV	121	Environmental Chemistry Lab	1
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	270	Treatment and Disposal Technologies	3
ENV	290	Wastewater Treatment Technology	6
ENV	291	Wastewater Treatment Technology Lab	2
TEC	200	Technical Communications	3

Electives:

ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
		Total Credits	36

Water Treatment Plant Attendant - 1505073059

ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	280	Water Treatment Technology	6
ENV	281	Water Treatment Technology Lab	2

Electives:

ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
		Total Credits	20

Water Treatment Plant Operator - 1505073069

CPU	100	Introduction to Computers	3
ENV	100	Environmental Mathematics	3
ENV	110	Introduction to Environmental Technology	4
ENV	111	Environmental Sampling Techniques Lab	2
ENV	120	Environmental Chemistry	3
ENV	121	Environmental Chemistry Lab	1
ENV	140	Geology, Hydrology and Soils	4
ENV	141	Geology, Hydrology and Soils Lab	2
ENV	270	Treatment and Disposal Technologies	3
ENV	280	Water Treatment Technology	6
ENV	281	Water Treatment Technology Lab	2
TEC	200	Technical Communications	3
Electives:			
ENV	293	Special Problems I	(1)
ENV	295	Special Problems II	(2)
ENV	297	Special Problems III	(3)
Total Credits			36

Equine Studies

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, feet, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistant trainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.

Other Certificates:

The Equine Industry Workforce Certificate will prepare students for entry level careers in the equine industry. Students will learn the basics of equine studies, equine physiology, and care of the racehorse. Lec-

ture classes will be provided online through BCTC/NARA, while the hands-on laboratory work associated with the courses may be offered by BCTC/NARA or in partnerships with other KCTCS colleges and racecourses within their districts.

The Veterinary Assistant Certificate will prepare students for application into the AAS in Veterinary Technology program at Morehead State University. Students will receive a core of general education courses, as well as an introduction to animal sciences and physiology. The racehorse care class and one credit hour of co-operative education in a local veterinary clinic will provide the student with the work experience/job shadowing hours typically required for consideration of acceptance into a Veterinary Technology program.

Associate in Applied Science

Equine Studies - 0105077019

(Offered at BLC)

General Education:

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/Humanities	3
Written Communication	3
Total General Education Requirements	15

Technical Core:

Computer/Digital Literacy	0-3
EQS 101 Introduction to the Thoroughbred	3
EQS 103 Racehorse Care	1
EQS 104 Racehorse Care Lab	3
EQS 110 Basic Equine Physiology	3
EQS 125 Equine Nutrition	3
EQS 130 Introduction to the Racing Industry	3
EQS 200 Lameness in Racehorses	3
EQS 240 Equine Legal and Business Principles	3
Technical Electives	6
Total Technical Core	28-31

Jockey Track - 010507701

(Offered at BLC)

EQS 111 Introduction To Riding Racehorses	1
EQS 112 Racehorse Riding Skills I	4
EQS 113 Racehorse Riding Skills II	4
EQS 212 Racehorse Riding Principles	3
EQS 213 Racehorse Riding Techniques	2
EQS 215 Life Skills for Jockeys	3
Subtotal Jockey Track	17

Total Jockey Track AAS

60-63

Horseman Track - 010507702

(Offered at BLC)

EQS 118 Equine Bloodstock	3
EQS 121 Introduction to Breaking and Training Racehorses	1
EQS 122 Yearling Breaking and Training	3
EQS 123 Breaking and Prepping Two Year Olds	3
EQS 223 Training Principles and Practices	4
EQS 225 Life Skills for Horsemen	3
Subtotal Horseman Track	17

Total Horseman Track

60-63

Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA 101	Elementary Spanish	4
EQM 120	Introduction to Commercial Breeding Practices	3
EQS 118	Equine Bloodstock.....	3
EQS 299	Equine Cooperative Education (internship).....	1-9

Diplomas

Equine Studies - 0105074019

(Offered at BLC)

General Education Core

Area I	(Written Communication /Oral Communications, or Humanities/Heritage)	3
Area II	(Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning).....	3
	General Education Total	6

Technical Core

	Computer/Digital Literacy	0-3
EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 125	Equine Nutrition.....	3
EQS 130	Introduction to the Racing Industry	3
EQS 200	Lameness in Racehorses	3
EQS 240	Equine Legal and Business Principles.....	3
EQS 299	Equine Cooperative Education (1 credit hour min required in diploma. Additional credits may count toward elective credits.)	1
	Technical Electives.....	6
	Total Technical Core	29-32

Jockey Track - 010507401

(Offered at BLC)

EQS 111	Introduction to Riding Racehorses	1
EQS 112	Racehorse Riding Skills I	4
EQS 113	Racehorse Riding Skills II	4
EQS 212	Racehorse Riding Principles	3
EQS 213	Racehorse Riding Techniques	2
EQS 215	Life Skills for Jockeys	3
	Subtotal Jockey Track	17
	Total JockeyTrack Diploma	52-55

Horseman Track - 010507402

(Offered at BLC)

EQS 118	Equine Bloodstock.....	3
EQS 121	Introduction to Breaking and Training Racehorses	1
EQS 122	Yearling Breaking and Training	3
EQS 123	Breaking and Training Yearlings/Two Year Olds.....	3
EQS 223	Training Principles and Practices	4
EQS 225	Life Skills for Horsemen.....	3
	Subtotal Horseman Track	17
	Total Horseman Track	52-55

Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

SPA 101	Elementary Spanish	4
EQM 120	Introduction to Commercial Breeding Practices	3
EQS 118	Equine Bloodstock.....	3
EQS 299	Equine Cooperative Education (internship).....	1-9

Certificate

Exercise Rider - 0105073019

(Offered at BLC)

EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 111	Introduction to Riding Racehorses	1
EQS 112	Racehorse Riding Skills I	4
EQS 113	Racehorse Riding Skills II	4
EQS 130	Introduction to the Racing Industry	3
	Total Credits	22

Racehorse Care and Breaking – 0105073049

(Offered at BLC)

EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 121	Introduction to Breaking and Training Racehorses	1
EQS 123	Breaking and Prepping Two Year Olds	3
EQS 125	Equine Nutrition.....	3
EQS 130	Introduction to the Racing Industry	3
	Total Credits	20

Equine Industry Workforce - 0105073039

(Offered at BLC)

EQS 101	Introduction to the Thoroughbred	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab OR.....	3
EQS 299	Equine Co-op	(3)
EQS 110	Basic Equine Physiology	3
EQS 130	Introduction to the Racing Industry	3
EQS 200	Lameness in Racehorses	3
	Total Credits	16

Veterinary Assistant - 0105073059

(Offered at BLC)

ENG 101	Writing I	3
BIO 112	Introduction to Biology	3
CHE 140	Introductory General Chemistry.....	3
CHE 145	Introductory General Chemistry Lab	1
COM 181	Basic Public Speaking	3
MAT 116	Technical Mathematics	3
AGR 240	Introduction to Animal Science	3
EQS 103	Racehorse Care	1
EQS 104	Racehorse Care Lab	3
EQS 110	Basic Equine Physiology	3
EQS 299	Equine Co-op	1
	Total Credits	27

Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

Certificate

Personal Trainer – 5109993029

(Offered at BSC)

MIT	103	Medical Office Terminology OR	3
CLA	131	Medical Terminology from Greek and Latin OR	(3)
AHS	115	Medical Terminology	(3)
CPR	100	CPR for the Healthcare Professional	1
SFA	100	Safety and First Aid	1
BAS	200	Small Business Management OR	3
BAS	288	Personal and Organizational Leadership	(3)
MSG	100	Musculoskeletal Anatomy and Physiology OR	4
BIO	135	Basic Anatomy and Physiology with Laboratory	(4)
KHP	150	Personal Health Behavior	3
KHP	160	Personal Nutrition and Fitness	3
KHP	225	Exercise Techniques and Physical Training	3
KHP	235	Personal Trainer Practicum	2
Total Credits			23

Financial and Customer Services

This certificate is designed to provide students with the financial, communication, and customer service skills necessary to be successful in the global financial services market. The certificate will require four primary areas of study including two fundamental courses, Spanish and customer service, and two courses in finance and communication, which enable different areas of emphasis.

Certificate

Financial and Customer Services Certificate – 5208033019

(Offered at OWC)

SPA	101	Elementary Spanish	4
QMS	201	Customer Service Improvement Skills	3
OST	235	Business Communication Technology OR	3
COM	252	Introduction to Interpersonal Communication	(3)
BAS	120	Personal Finance OR	3
BAS	294	Money and Financial Institutions	(3)
Total Credits			13

Fire/Rescue Science Technology

Fire/Rescue Science Technology:

If you are interested in a career in the fire service, the Fire/Rescue Science Technology Program will prepare you for the challenges facing today's emergency responders. In the program you will learn the skills of fire suppression and prevention, technical rescue, hazardous materials, emergency medical care, and leadership. This program is beneficial whether you are seeking a career in emergency services (Fire, Rescue, EMS or Emergency Management) or if you are already involved in providing fire, rescue or EMS services in your community.

Students may enter the program with or without experience in emergency services. The degree, certificate, and diploma programs that are offered can help you in obtaining employment in various emergency service fields, or if you are already a firefighter, help you get that promotion you have been waiting for. Classes are offered through State Fire/Rescue Training and may be offered in various formats such as: Web courses, hybrid courses, and traditional classroom offerings. For more information regarding this program, contact your local State Fire/Rescue Training Area Office or see the index for Fire/Rescue Training.

Emergency Medical Technician Certificate:

Students in the Emergency Medical Technician program are instructed in the proper care of sick and injured patients. Students are trained to treat victims suffering from traumatic and medical emergencies such as broken bones, puncture wounds, cardiac, and respiratory emergencies, vehicle accidents and more. This course meets requirements set forth by the National Highway Traffic Safety Administration's National Emergency Medical Services Standards for the Emergency Medical Technician. Students that successfully complete the course and its requirements will be awarded a certificate for Emergency Medical Technician, and will be eligible to sit for the certification examination as administered by the National Registry of Emergency Medical Technicians.

Associate in Applied Science

Fire/Rescue Science Technology - 4302037019

(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

Heritage/Humanities	3
Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Written Communication	3
Subtotal	15

Technical Courses:

	Computer/Digital Literacy	0-3	
FRS	101	Introduction to Fire Service	3
FRS	102	Firefighters Basic Skills I	3
FRS	103	Firefighters Basic Skills II	3
FRS	104	Firefighters Intermediate Skills I	3
FRS	105	Firefighters Intermediate Skills II	3
FRS	201	Firefighters Advanced Skills I	3
FRS	202	Firefighters Advanced Skills II	3
FRS	203	Firefighters Advanced Skills III	3
FRS	204	EMT First Responder	3
FRS	205	Fire Officer I	5
FRS	206	Fire Officer II	8
FRS	207	Fire Officer III	6
Subtotal		46-49	
Total Credits		61-64	

NOTE: All FRS courses are available in modules; see course description section.

Diploma

Fire Chief - 4302034039

(Offered at ASC, BLC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

Area 1	Written Communication, Oral Communications, or Humanities/Heritage	3
Area 2	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
Subtotal		6

Technical Courses:

	Computer/Digital Literacy Course OR demonstrated competency	0-3
FRS 101	Introduction to Fire Service	3
FRS 102	Firefighters Basic Skills I.....	3
FRS 103	Firefighters Basic Skills II.....	3
FRS 104	Firefighters Intermediate Skills I.....	3
FRS 105	Firefighters Intermediate Skills II.....	3
FRS 201	Firefighters Advanced Skills I.....	3
FRS 202	Firefighters Advanced Skills II.....	3
FRS 203	Firefighters Advanced Skills III.....	3
FRS 204	EMT First Responder.....	3
FRS 205	Fire Officer I.....	5
FRS 206	Fire Officer II.....	8
FRS 207	Fire Officer III.....	6
	Subtotal	46-49
	Total Credits	52-55

NOTE: All FRS courses are available in modules; see course description section.

Certificate

Basic Firefighter - 4302033019

(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 101	Introduction to Fire Service	3
FRS 102	Firefighters Basic Skills I.....	3
FRS 103	Firefighters Basic Skills II.....	3
FRS 104	Firefighters Intermediate Skills I.....	3
	Total Credits	12

NOTE: All FRS courses are available in modules; see course description section.

Advanced Firefighter - 4302033029

(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 101	Introduction to Fire Service	3
FRS 102	Firefighters Basic Skills I.....	3
FRS 103	Firefighters Basic Skills II.....	3
FRS 104	Firefighters Intermediate Skills I.....	3
FRS 105	Firefighters Intermediate Skills II.....	3
FRS 201	Firefighters Advanced Skills I.....	3
FRS 202	Firefighters Advanced Skills II.....	3
FRS 203	Firefighters Advanced Skills III.....	3
	Total Credits	24

NOTE: All FRS courses are available in modules; see course description section.

Fire Officer - 4302033039

(Offered at ASC, BLC, BSC, ELC, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

FRS 2051	Fire Prevention, Public Education and Fire Cause Determination II.....	0.5
FRS 2052	Firefighter Survival and Rescue	1.1
FRS 2053	Hazardous Materials Technician	3.4
FRS 2062	Managing Company Tactical Operations: Decision Making	1.0
FRS 2063	Instructional Techniques for Company Officers	1.0
FRS 2071	Company Officer	3.5
FRS 2072	Incident Command System (ICS).....	0.9
FRS 2073	Leadership I: Strategies for Company Success.....	0.8
FRS 2074	Fire/Arson Detection (Arson I)	0.8
	Total Credits	13

NOTE: All FRS courses are available in modules; see course description section.

Emergency Medical Technician - 5109042010

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

FRS 2061	Emergency Medical Technician OR.....	6
EMS 105	Emergency Medical Technician.....	6
	Total Credits	6

NOTE: Contact faculty concerning pre-requisites.

General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/ Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/ Technical Studies degree when consistent with the objectives of the student's individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student's program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

Associate in Applied Science

General Occupational/Technical Studies - 3099997017

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

General Education Component Minimum³

Quantitative Reasoning	3
Natural Sciences	3
Social/Behavioral Sciences	3
Heritage/Humanities	3
Written Communication.....	3
Additional General Education Coursework	0-5
Subtotal	15- 20

Technical Component Minimum³

Computer/Digital Literacy (Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course) ¹	0-3
Technical Courses ²	45-50
Subtotal	45- 53
Total Credits	60-68

NOTE:

1 If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.

2 The student must have a plan of study on file in the academic affairs office.

3 A combination of general education and technical courses should not exceed 68 credits.

Geospatial Technology

The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

Certificate

Applications of Geospatial Technology – 4507023029

(Offered at)

CIT	125	Introduction to GIS	3
CIT	225	GIS Software Tools.....	3
GIS	145	Remote Sensing	3
GIS	255	Geospatial Programming	3
GIS	260	Geospatial Web Mapping	3
Total Credits			15

Global Studies

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

Associate in Applied Science

Global Studies - 3020017019

(Offered at JFC)

Global Studies

ENG	101	Writing II AND	3
ENG	102	Writing III OR	3
ENG	105	Writing: An Accelerated Course ¹ and.....	(3)
		Global Studies Humanities/Fine Arts ²	(3)
MAT	146	Contemporary College Mathematics ¹ OR.....	3
MAT	150	College Algebra ¹	(3)
		Natural Sciences ¹	3-4
		Social/Behavioral Sciences ¹	3
		Heritage/Humanities ¹	3
		Computer/Digital Literacy ³	3
COM	254	Introduction to Intercultural Communication ¹	3
		Foreign Language ¹	8
		One Study Abroad/Overseas Experience course (HRS 200, IES 235 or other Study Abroad course from a non-KCTCS accredited higher education institution)	3
		Global Studies Heritage ⁴	6
		Global Studies Humanities/Fine Arts ²	6
		Global Studies Natural Science/Business ⁵	6-7
		Global Studies Social Interaction ⁶	6
GBS	290	Global Studies Capstone Course	3
Total			62-64

1 General Education

2 Select from Global Studies Humanities/Fine Arts list.

3 Students who pass the computer/digital literacy exam in lieu of completing an approved computer/digital literacy course must take an additional three (3) credits of Global Studies credit from the approved Global Studies course lists.

4 Select from Global Studies Heritage list.

5 Select from Global Studies Natural Science list.

6 Select from Global Studies Social Interaction list.

Certificate

Global Studies - 3020013010

(Offered at ELC, JFC)

COM	254	Introduction to Intercultural Communication.....	3
		Foreign Language	4
		Global Studies Heritage ⁴	3
		Global Studies Humanities/Fine Arts ²	3
		Global Studies Natural Science/Business ⁵	3
		Global Studies Social Interaction ⁶	3
Total			19

2 Select from Global Studies Humanities/Fine Arts list.

4 Select from Global Studies Heritage list.

5 Select from Global Studies Natural Science list.

6 Select from Global Studies Social Interaction list.

Health Care Foundations

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

Certificate

Health Care Foundations-Basic - 5139023209

(Offered at ASC, JFC)

HST	101	Health Care Basic Skills I OR.....	3
HST	104	Health Care Basic Skills I with Clinical	(3.5)
HST	102	Health Care Delivery & Management.....	3
HST	103	Health Care Communication	2
AHS	115	Medical Terminology	3
Subtotal			11-11.5

Health Care Foundations-Intermediate - 5139023219

(Offered at ASC, JFC)

HST	101	Health Care Basic Skills I OR.....	3
HST	104	Health Care Basic Skills I with Clinical	(3.5)
HST	102	Health Care Delivery & Management.....	3
HST	103	Health Care Communication	2
AHS	115	Medical Terminology	3
HST	121	Pharmacology	2
HST	122	Clinical Pathophysiology	3
HST	123	Health Care Basic Skills II	2
Subtotal			18-18.5

Health Care Specialist

This certificate prepares students for a variety of Health IT workforce roles across hospitals, clinics, and other healthcare organizations that are integral to the implementation and management of electronic health information systems. The knowledge gained through completion of this certificate can be used to gain employment locally, regionally, and nationally.

Students will select a certificate track of Practice Workflow/Redesign Specialist, Clinician/Practitioner Consultant, Implementation Manager, Technical Software Support Specialist, Implementation Support Technician, or Trainer Specialist, all of which map to AHIMA's (American

Health Information Management Association) Certified Healthcare Technology Specialist (CHTS), and CompTIA's HIT Technician and Pro Certifications.

Certificate

Health Care Specialist – 5107073079

(Offered at HZC)

Core:		
CIT 105	Introduction to Computers	3
AHS 115	Medical Terminology	3
BIO 135	Basic Anatomy and Physiology with Lab	4
Subtotal		10

Practice Workflow/Redesign Specialist Track – 510707301

(Offered at HZC)

HCS 110	Culture of Healthcare	1
HCS 145	Health IT Terminology	1
HCS 150	Health IT Analysis & Quality	2
HCS 165	Health Management Systems	2
HCS 180	Usability & Human Factors	1
HCS 200	Health IT Computer Systems.....	1
HCS 295	Health IT Capstone.....	1
Total		19

Clinician/Practitioner Consultant Track – 510707302

(Offered at HZC)

HCS 145	Health IT Terminology	1
HCS 150	Health IT Analysis & Quality	2
HCS 165	Health Management Systems	2
HCS 220	Working with Health IT Systems	1
HCS 290	Leadership in Health IT	1
HCS 295	Health IT Capstone.....	1
Total		18

Implementation Manager Track – 510707303

(Offered at HZC)

HCS 110	Culture of Healthcare	1
HCS 125	History in Healthcare	1
HCS 145	Health IT Terminology	1
HCS 150	Health IT Analysis & Quality	2
HCS 280	Project Management & Teams	1
HCS 290	Leadership in Health IT	1
HCS 295	Health IT Capstone.....	1
Total		18

Technical Software Support Specialist Track – 510707304

(Offered at HZC)

HCS 145	Health IT Terminology	1
HCS 200	Health IT Computer Systems.....	1
HCS 210	Implementing Health IT Systems	3
HCS 220	Working with HIT Systems	1
HCS 230	Vendor-Specific Systems.....	2
HCS 281	Health IT Customer Service	1
HCS 295	Health IT Capstone.....	1
Total		20

Implementation Support Specialist Track – 510707305

(Offered at HZC)

HCS 145	Health IT Terminology	1
HCS 200	Health IT Computer Systems.....	1
HCS 210	Implementing Health IT Systems	3
HCS 220	Working with HIT Systems	1
HCS 230	Vendor-Specific Systems.....	2
HCS 295	Health IT Capstone.....	1
Total		19

Training Specialist Track – 510707306

(Offered at HZC)

HCS 100	Public Health Care in the US	2
HCS 110	Culture of Healthcare	1
HCS 145	Health IT Terminology	1
HCS 165	Health Management Systems	2
HCS 180	Usability & Human Factors	1
HCS 260	Health IT Instructional Design	1
HCS 281	Health IT Customer Service	1
HCS 295	Health IT Capstone.....	1
Total		20

Health Information Technology

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of "C" in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association's / Commission on Certification for Health Informatics and Information Management (CCHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association's CCA coding examination and the American Academy of Professional Coders' CPC-A (and others as qualified) coding examinations.

For students completing the AAS in Health Information Technology, documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied Science Degree Health Information Technology Program at Jefferson Community and Technical College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Additional information may be found at CAHIIM's website URL: <http://cahiim.org>.

Associate in Applied Science

Health Information Technology - 5107077019

(Offered at BLC, GTW, HZC, JFC)

General Education Requirements:

ENG 101	Writing I	3
BIO 135	Human Anatomy and Physiology with laboratory OR.....	4
BIO 137	Human Anatomy and Physiology I AND	(4)
BIO 139	Human Anatomy and Physiology II	(4)
MAT 110	Applied Mathematic OR	3
MAT 150	College Algebra	(3)
PSY 110	General Psychology OR	3
SOC 101	Introduction to Sociology	(3)
	Heritage/Humanities	3
Subtotal		16-20

Health Science Technology

The Health Science Technology (HST) program is designed to prepare students for entry-level career opportunities in the field of healthcare and health-related services. The program is designed for those students who seek entry level jobs as well as for the currently employed individual wishing to broaden skills for career enhancement. Graduates will possess marketable skills sets for direct services as well as the foundation needed to understand current health care delivery. Many of the general education and core courses are required for completion of varied professional health programs. Examples include diagnostic medical sonography, medical assisting, nursing, physical therapy assistant, radiography, respiratory care, and surgical technology. The HST provides a smooth transition or career pathway to an Allied Health or nursing selective admission program once a student is accepted.

A grade of "C" or better is required in each biological science and quantitative reasoning course.

Associate in Applied Science

Health Science Technology – 5100007019

(Offered at ASC, BSC, ELC, HPC, JFC, MDC, WKC)

General Education

MAT 150	College Algebra and Functions OR.....	3
MAT 110	Applied Math.....	(3)
ENG 101	Writing I.....	3
FYE 105	Achieving Academic Success.....	3
BIO 135	Basic Human Anatomy OR.....	4
BIO 137	Human Anatomy & Physiology I AND.....	(4)
BIO 139	Human Anatomy & Physiology II.....	(4)
PSY 110	General Psychology.....	3
	Social/Behavioral Sciences.....	3
	Heritage/Humanities.....	3
	Oral Communications.....	3
	Subtotal	25-29

Technical Core:

CLA 131	Medical Terminology from Greek and Latin OR.....	3
AHS 115	Medical Terminology OR.....	(3)
MIT 103	Medical Office Terminology.....	(3)
NAA 100	Nursing Assistant Skills I.....	3
	Digital Literacy#.....	0-3
	Health Science Technical Courses**.....	29-30
	Subtotal	35-39

Total 60-68

Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

** Health Science Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

Nursing Assistant
Advanced Nursing Assistant
Phlebotomy for the Healthcare Worker
Pharmacy Technician I
Medical Coding
Medical Office Radiology

Student may take the following courses to meet the required 60 credit hours needed for the Health Science Technology degree:

AHS 100	BIO 137	EFM 100	HST 122	PHY 172
AHS 105	BIO 139	HST 101	HST 123	PLW 130
AHS 115	BIO 225	HST 102	NAA 102	PLW 135
AHS 201	CIT 105	HST 103	OST 110	PLW 140
AHS 203	COM 181	HST 104	PHY 152	TEC 200
BAS 120	COM 252	HST 121	PHY 171	WPP 200

Technical Course Requirements:

CIT 105	Introduction to Computers OR.....	3
OST 105	Introduction to Information Systems.....	(3)
CLA 131	Medical Terminology from Greek or Latin OR.....	3
MIT 103	Medical Office Terminology OR.....	(3)
AHS 115	Medical Terminology.....	(3)
HIT 100	Introduction to Health Information Technology.....	3
HIT 105	Patho/Pharm for Health Information Professionals.....	4
CIT 130	Productivity Software OR.....	3
OST 240	Software Integration.....	(3)
HIT 109	Clinical Classification Systems I.....	4
HIT 110	Legal/Ethical Issues in Health Information.....	2
HIT 112	Reimbursement Methodologies.....	3
HIT 200	Information Systems in Healthcare.....	3
HIT 202	Clinical Classification Systems II.....	3
HIT 205	Performance Improvement in Health Information.....	3
HIT 207	Clinical Classification Systems III.....	3
HIT 211	Health Care Management & Statistics.....	3
HIT 215	Clinical Practicum OR.....	4
HIT 2151	Clinical Practicum I AND.....	(2)
HIT 2152	Clinical Practicum II.....	(2)
	Subtotal	44
	Total Credits	60-64

NOTE: BIO 137 and BIO 139 are required at JCTC.

Certificate

HIT Coding- 5107073089

(Offered at BLC, GTW, HZC, JFC)

CLA 131	Medical Terminology from Greek or Latin OR.....	3
MIT 103	Medical Office Terminology OR.....	(3)
AHS 115	Medical Terminology.....	(3)
BIO 135	Human Anatomy and Physiology with laboratory OR.....	4
BIO 137	Human Anatomy and Physiology I AND.....	(4)
BIO 139	Human Anatomy and Physiology II.....	(4)
HIT 100	Introduction to Health Information Technology.....	3
HIT 105	Patho/Pharm for Health Information Professionals.....	4
HIT 109	Clinical Classification Systems I.....	4
HIT 110	Legal/Ethical Issues in Health Information.....	2
HIT 112	Reimbursement Methodologies.....	3
HIT 202	Clinical Classification Systems II.....	3
HIT 207	Clinical Classification Systems III.....	3
HIT 215	Clinical Practicum.....	4
	Total Credits	33-37

Release of Information Data Specialist – 5107073099

(Offered at BLC, GTW, HZC, JFC)

HIT 100	Introduction to Health Information Technology.....	3
HIT 110	Legal/Ethical Issues in Health Information.....	2
BIO 135	Human Anatomy and Physiology with laboratory OR.....	4
BIO 137	Human Anatomy & Physiology I AND.....	(4)
BIO 139	Human Anatomy & Physiology II.....	(4)
CLA 131	Medical Terminology from Greek or Latin OR.....	3
MIT 103	Medical Office Terminology OR.....	(3)
AHS 115	Medical Terminology.....	(3)
	Total Credits	12-16

Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

Associate in Applied Science

Healthcare Facilities Leadership – 5107997019

(Offered at OWC)

General Education Courses

ENG 101	Writing I	3
MAT 150	College Algebra or Higher Level Quantitative Reasoning Course	3
PHI 110	Medical Ethics	3
HFL 100	Introduction to Healthcare Facility Management	3
HFL 110	Introduction to Healthcare Industry	2
HFL 120	Infection Control and Prevention	2
HFL 130	Compliance, Codes, and Standards I	3
HFL 140	Maintenance and Operations I	3
HFL 150	Planning, Design, and Construction I	3
CHE 170	General College Chemistry I AND	3
CHE 175	General College Chemistry I Lab OR	1
BIO 112	Introduction to Biology AND	(3)
BIO 113	Introduction to Biology Lab	(1)
COM 181	Basic Public Speaking	3
ESP 101	Introduction to Energy Systems	3
HFL 230	Compliance, Codes, and Standards II	3
HFL 240	Maintenance and Operations II	3
HFL 250	Planning, Design, and Construction II	3
HFL 260	Healthcare Facilities Leadership Capstone I	3
HFL 270	Healthcare Facilities Leadership Capstone II	3
BAS 287	Supervisory Management OR	3
BAS 289	Operations Management	(3)
BAS 212	Introduction to Financial Management	3
ECO 201	Principles of Microeconomics	3
BAS 288	Personal and Organizational Leadership	3
	Digital Literacy or Elective (if Digital Literacy is satisfied)	3
	Total Credits	65-66

Diploma

Healthcare Facilities Leadership - 5107994019

(Offered at OWC)

ENG 101	Writing I	3
PHI 110	Medical Ethics	3
HFL 100	Introduction to Healthcare Facility Management	3
HFL 110	Introduction to Healthcare Industry	2
HFL 120	Infection Control and Prevention	2
HFL 130	Compliance, Codes, and Standards I	3
HFL 140	Maintenance and Operations I	3
HFL 150	Planning, Design, and Construction I	3
COM 181	Basic Public Speaking	3
HFL 230	Compliance, Codes, and Standards II	3
HFL 240	Maintenance and Operations II	3
HFL 250	Planning, Design, and Construction II	3
HFL 260	Healthcare Facilities Leadership Capstone I	3
ECO 201	Principles of Microeconomics	3
BAS 288	Personal and Organizational Leadership	3
	Digital Literacy	0-3
	Total Credits	43-46

Certificate

Healthcare Facilities Foundation - 5107993019

(Offered at OWC)

HFL 100	Introduction to Healthcare Facility Management	3
HFL 110	Introduction to Healthcare Industry	2
HFL 120	Infection Control and Prevention	2
HFL 130	Compliance, Codes, and Standards I	3
HFL 140	Maintenance and Operations I	3
HFL 150	Planning, Design, and Construction I	3
	Total Credits	16

Heavy Equipment Operation

Designed to instruct students in the safe operation of heavy equipment, e.g., bulldozers, backhoes, front-end loaders, hydraulic excavators and graders. Instruction in digging, ditching, sloping, stripping, grading, back filling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

Diploma

Operating Engineer - 4902024019

(Offered at HZC, SEC)

General Education:

Area 1=	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2=	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning*	3
	Subtotal	6

*MAT 116 or higher level Quantitative Reasoning course required at SEC

Technical Courses:

	Digital Literacy	0-3
ISX 100	Industrial Safety	3
DIT 103	Preventive Maintenance Lab	2
HEO 151	Heavy Equipment Operating I	6
HEO 201	Heavy Equipment Operating II	6
HEO 251	Heavy Equipment Operating III	6
HEO 125	Special Problems I	3
HEO 225	Special Problems II	3
	Total Technical Credits	29-32
	Total Credits	35-38

Certificates

Backhoe Operator - 4902023069

(Offered at HZC, SEC, WKC)

HEO 110	Power Shovel Backhoe Operator	7
DIT 103	Preventive Maintenance Lab	2
HEO 125	Special Problems I	3
	Total Credits	12

Bulldozer Operator- 4902023029

(Offered at HZC, SEC, WKC)

HEO 111	Bulldozer Operator	7
DIT 103	Preventive Maintenance Lab	2
HEO 125	Special Problems I	3
	Total Credits	12

Front-End Loader Operator - 4902023079

(Offered at HZC, SEC,WKC)

HEO	107	Utility Tractor Loader Operator	7
DIT	103	Preventive Maintenance Lab	2
HEO	125	Special Problems	3
Total Credits			12

Motor-Grader Operator - 4902023049

(Offered at HZC, SEC,WKC)

HEO	106	Motor-Grader Operator	7
DIT	103	Preventive Maintenance Lab	2
HEO	125	Special Problems	3
Total Credits			12

Hydraulic Excavator Operator - 4902023059

(Offered at HZC, SEC,WKC)

HEO	151	Heavy Equipment Operating I.....	6
HEO	115	Hydraulic Excavator Operator	7
DIT	103	Preventive Maintenance Lab	2
HEO	125	Special Problems 1	3
Total Credits			18

Historic Preservation Technology

The program will focus on the study of preservation theory coupled with hands-on skill training to meet the needs of entry level individuals and prospective employers involved in the historic preservation field. Researching the background of structures designated as historic properties will enhance the learning experience while applying the Secretary of the Interior's standards for the rehabilitation of historic structures.

Certificates

Historic Preservation Technology – 3012013019

(Offered at JFC)

BRX	220	Blueprint Reading for Construction.....	3
ACH	120	Theory and History of Architecture I	3
HIS	240	History of Kentucky	3
HPT	100	Introduction to Historic Preservation.....	3
HPT	101	Introduction to Historic Preservation Lab	2
ISX	100	Industrial Safety OR	3
ISX	101	Introduction to Industrial Safety	(3)
Technical Electives*			8
Total			25

***Technical Electives: Select a minimum of 8 credit hours**

HPT	120	Traditional Woodworking	2
HPT	200	Masonry Repointing and Repair	2
HPT	202	Window Restoration and Repair.....	2
HPT	204	Roof Restoration and Repair	2
HPT	298	Field Experience Practicum	2

Homeland Security/ Emergency Management

The degree program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: Fire Departments, Law Enforcement, and Medical Services and how these agencies function within the National Incident Management System.

Fire Science Track:

This degree track includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.

Criminal Justice Track:

This criminal justice degree track prepares the student for entry into the field of police work and related occupations. Criminal justice vocations have evolved from jobs with minimal requirements to jobs requiring complex knowledge and skills. This curriculum gives the student theory, principles, and techniques employed by criminal justice agencies and police units. The study of the law as it relates to criminal justice agencies, human behavior, government, and communications along with specialized course work comprise the curriculum.

Security Management Track:

The Security Management Coordinator degree track provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, security design and surveys, contingency planning, and acts of violence.

Homeland Security/Emergency Management Specialist Certificate:

This certificate program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: fire departments, law enforcement and emergency medical services and how these agencies function within the National Incident Management System.

Progression in the program is contingent upon achievement of a grade of "C" or better in each technical course for all program tracks above

Associate in Applied Science

Homeland Security/Emergency Management - 4399997019

(Offered at WKC)

General Education Core

Written Communication.....	3
Quantitative Reasoning.....	3
Natural Sciences	3
Social/Behavioral Sciences.....	3
Heritage/Humanities	3
Oral Communications	3
General Education Core Credit Hour Subtotal	18

Technical Core or Support Courses

Computer/Digital Literacy.....	0-3
HSM 100 Introduction to Homeland Security	3
HSM 110 Introduction to Emergency Management	3
CRJ 110 Principles of Asset Protection AND	3
CRJ 210 Physical Security Technology & Systems OR.....	3
LSI 120 Comprehensive Security Specialist AND	(4)
LSI 146 Crisis Management/Contingency Planning	(2)
HSM 225 Issues and Ethics in Homeland Security.....	3
AHS 140 Introduction to Public and Community Health	3
BAS 212 Introduction to Financial Management	3
FRS 101 Introduction to Fire Science	3
FRS 2061 Emergency Medical Technician.....	6

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Technical Core Subtotal

30-33

Fire Science Track - 439999701

(Offered at WKC)

FRS	102	Firefighter Basic Skills I.....	3
FRS	103	Firefighters Basic Skills II.....	3
FRS	104	Firefighter Intermediate Skills I.....	3
FRS	105	Firefighters Intermediate Skills II.....	3
FRS	201	Firefighters Advanced Skills I.....	3
Fire Science Track Subtotal.....			15

**Fire Science Track Total
Degree Requirements**

63-66

Criminal Justice Track - 439999702

(Offered at WKC)

CRJ	100	Introduction to Criminal Justice.....	3
CRJ	204	Criminal Investigations.....	3
CRJ	215	Introduction to Law Enforcement.....	3
CRJ	217	Criminal Procedures.....	3
CRJ	279	Terrorism and Political Violence.....	3
Criminal Justice Track Subtotal.....			15

Criminal Justice Track

Total Degree Requirements

63-66

Security Management Track - 439999703

LSI	140	Managing Terrorism & Other Crises.....	1
LSI	150	Professional Locksmithing.....	4
Electives.....			10

A minimum of 3 credit hours must be taken from this list of electives:

LSI	130	GSA: Locks, Vaults & Containers.....	4
LSI	131	GSA: Locks, Vaults & Containers Certified Inspector Training.....	1
LSI	151	Basic Safe Penetration.....	1
LSI	152	Combination Lock Manipulation.....	1
LSI	153	Safe Lock Servicing – Mechanical and Electronic.....	2
LSI	160	Fundamentals of Electricity.....	2
LSI	170	Electronic Access Control.....	2
LSI	195	Tactical Lock (restricted enrollment).....	8
Security Management Track Subtotal.....			15

Security Management Track

Total Degree Requirements

63-66

Certificate

Homeland Security/Emergency Management Specialist - 4399993019

(Offered at JFC, WKC)

HSM	100	Introduction to Homeland Security.....	3
HSM	110	Introduction to Emergency Management.....	3
CRJ	110	Principles of Asset Protection OR.....	3
CRJ	210	Physical Security Technology & Systems OR.....	3
LSI	120	Comprehensive Security Specialist..... (4)	
LSI	146	Crisis Management/Contingency Planning..... (2)	
HSM	225	Issues and Ethics in Homeland Security.....	3
AHS	140	Introduction to Public and Community Health.....	3
BAS	212	Introduction to Financial Management.....	3
FRS	101	Introduction to Fire Science.....	3
FRS	2061	Emergency Medical Technician.....	6
HSEM Specialist Certificate.....			30

Horticulture

The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

Associate in Applied Science

Horticulture - 0106017019

General Education:

Quantitative Reasoning.....	3
Natural Sciences.....	3
Heritage/Humanities.....	3
Social/Behavioral Sciences.....	3
Written Communication.....	3
Subtotal.....	15

Technical Core:

HRT	110	Computer/Digital Literacy *.....	0-3
HRT	120	Nursery Management.....	4
HRT	160	Turf Management OR.....	4
HRT	161	Retail Floral Design AND..... (4)	
HRT	130	Retail Floral Design Lab..... (2)	
HRT	130	Landscape Maintenance.....	3
HRT	131	Landscape Maintenance Lab.....	2
HRT	150	Horticulture Business Management.....	3
HRT	210	Landscape Design.....	4
HRT	240	Greenhouse Management.....	4
HRT	241	Greenhouse Management Lab.....	2
Subtotal.....			26-31

* Must meet computer/digital literacy requirement.

Science Track - 010601701

General Education Natural Sciences Course.....		3	
COE	199	Cooperative Education OR.....	3
COED	198	Practicum..... (3)	
HRT	104	Introduction to Herbaceous Plants.....	4
HRT	108	Introduction to Woody Plants.....	4
Electives (Horticulture Course List including COE198).....		8	
Subtotal.....			22

Total Science Track Credits

63-68

Business Track - 010601702

COE	199	Cooperative Education OR.....	2
COED	198	Practicum..... (2)	
ACT	101	Fundamentals of Accounting I.....	3
BAS	200	Small Business Management.....	3
BMO	170	Introduction to Business Management.....	3
OST	215	Office Procedures.....	3
BAS	267	Introduction to Business Law.....	3
Electives (Horticulture Course List including COE198).....		3	
Subtotal.....			20

Total Business Track Credits

61-66

Diploma

Landscape Technology - 0106014009

General Education:

Area 1=	Written Communication, Oral Communications, or Heritage/Humanities,.....	3	
Area 2=	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning.....	3	
Subtotal.....			6

Technical:

	Computer/Digital Literacy*	3
COE 199	Cooperative Education OR	6
COED 198	Practicum	(6)
HRT 104	Introduction to Herbaceous Plants	4
HRT 108	Introduction to Woody Plants	4
HRT 120	Turf Management OR	4
HRT 160	Retail Floral Design AND	(4)
HRT 161	Retail Floral Design Lab	(2)
HRT 130	Landscape Maintenance.....	3
HRT 131	Landscape Maintenance Lab	2
HRT 210	Landscape Design.....	4
	Subtotal	30-32
	Total	36-38

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

Ornamental Horticulture - 0106014029

(Offered at MYC)

General Education:

Area 1=	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2=	Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning	3
	Subtotal	6

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

Technical:

	Computer/Digital Literacy*	3
COE 199	Cooperative Education OR	3
COED 198	Practicum	(3)
HRT 104	Introduction to Herbaceous Plants	4
HRT 108	Introduction to Woody Plants	4
HRT 110	Nursery Management	4
HRT 120	Turf Management OR	4
HRT 160	Retail Floral Design AND	(4)
HRT 161	Retail Floral Design Lab	(2)
HRT 130	Landscape Maintenance.....	3
HRT 131	Landscape Maintenance Lab	2
HRT 150	Horticulture Business Management	3
HRT 210	Landscape Design.....	4
HRT 240	Greenhouse Management	4
HRT 241	Greenhouse Management Lab	2
COED 198	Practicum	8
	Subtotal	48-50
	Total	54-56

Certificates

Greenhouse Operations - 0106013029

(Offered at MYC)

HRT 240	Greenhouse Management	4
HRT 241	Greenhouse Management Lab	2
	Electives (Horticulture Course List)	6
	Total Credits	12

Greenhouse Production – 010613019

HRT 104	Introduction to Herbaceous Plants	4
HRT 240	Greenhouse Management	4
HRT 241	Greenhouse Management Lab	2
	Electives (Horticulture Course List including COE198)	8
	Total Credits	18

Horticulture Sales - 0106013119

(Offered at MYC)

HRT 108	Introduction to Woody Plants OR	4
HRT 104	Introduction to Herbaceous Plants	(4)
HRT 120	Turf Management OR	4
HRT 160	Retail Floral Design AND	(4)
HRT 161	Retail Floral Design Lab	(2)
HRT 130	Landscape Maintenance.....	3
HRT 150	Horticulture Business Management	3
	Electives (Horticulture Course List)	1-2
	Total Credits	15-18

Landscape Installation - 0106013049

(Offered at MYC)

HRT 108	Introduction to Woody Plants OR	4
HRT 104	Introduction to Herbaceous Plants	(4)
HRT 130	Landscape Maintenance.....	3
HRT 131	Landscape Maintenance Lab	2
	Electives (Horticulture Course List)	3
	Total Credits	12

Landscape Planning - 0106013059

(Offered at MYC)

HRT 104	Introduction to Herbaceous Plants	4
HRT 108	Introduction to Woody Plants	4
HRT 130	Landscape Maintenance.....	3
HRT 131	Landscape Maintenance Lab	2
HRT 210	Landscape Design.....	4
	Electives (Horticulture Course List)	5
	Total Credits	22

Lawn Maintenance - 0106013069

(Offered at MYC)

HRT 120	Turf Management.....	4
HRT 130	Landscape Maintenance.....	3
HRT 131	Landscape Maintenance Lab	2
	Electives (Horticulture Course List)	1
	Total Credits	10

Nursery Production - 0106013079

(Offered at MYC)

HRT 108	Introduction to Woody Plants	4
HRT 110	Nursery Management.....	4
HRT 240	Greenhouse Management	4
	Electives (Horticulture Course List including COE198)	8
	Total Credits	20

Nursery Operations - 0106013089

(Offered at MYC)

HRT 108	Introduction to Woody Plants	4
HRT 110	Nursery Management.....	4
	Electives (Horticulture Course List including COE198)	5
	Total Credits	13

Human Services

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.

Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies.

Students obtain a "C" or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 249 OR HMS250) and also in the two technical courses that have been selected to complete the core requirements.

Associate in Applied Science

Human Services- 4400007000

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, OWC)

General Education:

COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communications	(3)
ENG 101	Writing I	3
ENG 102	Writing II	3
PSY 110	General Psychology	3
PSY 223	Developmental Psychology	3
SOC 101	Introduction to Sociology	3
	Second Sociology course	3
	Heritage/Humanities course	3
	Quantitative Reasoning course	3
	Natural Sciences	3
	Subtotal	30

Technical Core:

CIT 105	Introduction to Computers OR	3
	Approved Digital Literacy Course	(3)
HMS 101	Human Services Survey	3
HMS 102	Values of Human Services in a Contemporary Society	3
HMS 103	Theories and Techniques in Human Services	3
HMS 104	Group Dynamics for Human Services	3
HMS 249	Foundational Skills in Para-Professional Practice OR	4
HMS 250	Clinical Practice in Human Services OR	(4)
COE 199	Cooperative Education	(4)
	Technical courses	6
	Electives	9
	Subtotal	34
	Total Credits	64

Technical Courses: Choose six hours

CRJ 101	Introduction to Criminal Justice	3
CRJ 208	Delinquency and the Juvenile Justice System	3
EDP 203	Teaching Exceptional Learners in Regular Classrooms	3
FAM 252	Introduction to Family Science	3
FAM 253	Human Sexuality: Development, Behavior and Attitudes	3
HMS 210	Drugs, Society, and Human Behavior	3
HMS/SWK200	Dynamics of Human Behavior	3
HMS/SWK211/255	Introduction to Addictions	3
HMS/SWK212/260	Crisis Intervention	3
HMS/SWK220	Cultural Diversity in Human Services	3
HMS/SWK235/250	Teaching Persons with Mental Retardation	3
HMS 245	Psychiatric Mental Health Technician	3
HMS 265	Working with Disabilities in Human Services	3
HMS 299	Special Topics in Human Services	1-3
IEC 130	Early Childhood Development	3
IEC 200	Child Guidance	3
MNA 100	Medicaid Nurse Aide OR	3
NAA 100	Nursing Assistant Skills I	(3)
PSY 180	Human Relations	3
PSY 185	Human Potential	3
PSY 230	Psychosocial Aspects of Death and Dying	3
SED 110	Orientation to Interpreting for the Deaf	3
SED 101	American Sign Language I	3

SED 102	American Sign Language II	3
SOC 220	The Community	3
SWK 124	Introduction to Social Services	3
SWK 222	Development of Social Welfare	3
SWK 180	Introduction to Gerontology	3
SWK 269	Juvenile Delinquency	3
SWK 270	Corrections	3
SWK 275	The Family	3
SWK 276	Criminology	3
SWK 280	Methods of Working with the Aged	3
SWK 281	Psychology of Aging	3

Murray State University Courses:

SWK 120	Group Preparation and Selection for Foster and Adoptive Parents	2
SWK 121	Child Sexual Abuse for Foster and Adoptive Parents	2

Eastern Kentucky University Courses:

COR 106	Foundations of Youth Work	3
COR 423*	Reclaiming Our Prodigal Sons and Daughters	3
COR 423*	Life Space Crisis Intervention	3

* Special Topics course at EKU; different section numbers indicate different topic content

Eastern Kentucky University Courses:

SWK 106	Food Benefits	3
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Certificates

Direct Support Work - 4400003039

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, OWC, MDC)

Available Completely Online

HMS 102	Values of Human Services in a Contemporary Society	3
HMS 265	Working with Disabilities in Human Services	3
MNA 100	Medicaid Nurse Aide OR	3
NAA 100	Nursing Assistant Skills I	(3)
SWK 275	The Family OR	3
FAM 252	Introduction of Family Science	(3)

Electives – choose one course from the following list:

HMS/SWK235/250	Teaching Persons with Mental Retardation	3
SWK 180	Introduction to Gerontology	(3)
PSY 230	Psychosocial Aspects of Death and Dying	(3)
HMS/SWK200	Dynamics of Human Behavior	(3)

Total Credits 15

Aging Services – 4400003049

(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)

HMS 102	Values of Human Services in a Contemporary Society	3
HMS 265	Working with Disabilities in Human Services	3
MNA 100	Medicaid Nurse Aide OR	3
NAA 100	Nursing Assistant Skills I	(3)
SWK 275	The Family OR	3
FAM 252	Introduction of Family Science	(3)
SWK 180	Introduction to Gerontology	3
SWK 281	Psychology of Aging	3

Total Credits 18

Substance Abuse Recovery Coach – 4400003059

(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)

HMS 101	Human Services Survey	3
HMS 102	Values of Human Services in a Contemporary Society	3
HMS 103	Theories and Techniques in Human Services	3
HMS 104	Group Dynamics	3
HMS 210	Drugs, Society and Human Behavior	3
HMS/SWK211/255	Introduction to Addictions	3
HMS/SWK212/260	Crisis Intervention	3
SWK 275	The Family OR	3
FAM 252	Introduction of Family Science	(3)

Total Credits 24

Psychiatric Mental Health Technician –4400003069

(Offered at BSC, ELC, GTW, HZC, MDC)

HMS	101	Human Services Survey	3
HMS	102	Values of Human Services in a Contemporary Society	3
HMS	103	Theories and Techniques in Human Services	3
HMS	104	Group Dynamics	3
HMS	210	Drugs, Society and Human Behavior	3
SWK	275	The Family	3
MNA	100	Medicaid Nurse Aide OR	3
NAA	100	Nursing Assistant Skills I	(3)
HMS	245	Psychiatric Mental Health Technician	3
		Technical Elective from approved list	3
		Total Credits	27

Technical Electives:

HMS/SWK211/255	Introduction to Addictions	3
HMS/SWK212/260	Crisis Intervention	3
HMS/SWK200	Dynamics of Human Behavior	3
HMS/SWK220	Cultural Diversity in Human Services	3
HMS	265 Working with Disabilities in Human Services	3
SWK	180 Introduction to Gerontology	3
SWK	276 Criminology	3
SWK	281 Psychology of Aging	3

Industrial Chemical Technology

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

Associate in Applied Science

Industrial Chemical Technology - 4103017019

(Offered at JFC)

General Education

ENG	101	Writing I	3
CHE	140	Introductory General Chemistry	3
CHE	145	Introductory General Chemistry Lab	1
MAT	150	College Algebra	3
		Oral Communications	3
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
		Digital Literacy or demonstrated competency	0-3
AET	110	Introduction to Circuit Analysis	4
APT	142	Instrumentation	4
ICT	186	Introduction to Process Technology	3
ICT	192	Process Technology Equipment	4
ICT	194	Process Technology Systems	4
ICT	196	Process Technology Operations	3
ICT	200	Process Troubleshooting	4
ICT	230	Health, Safety, & Environmental Practices OR	3
ISX	101	Introduction to Industrial Safety	(3)
ICT	280	Capstone in Industrial Chemical Technology	2
ITE	250	Team Dynamics and Problem Solving	3
QMS	101	Introduction to Quality Systems	3
PHY	171	Applied Physics OR	4
PHY	152	Introductory Physics II AND	(3)
PHY	162	Introductory Physics II Lab	(1)
ELT	295	Independent Problems OR	1-2
COE	199	Co-operative Education	(1-4)
		Total	61-67

Information Management and Design

The Information Management & Design program prepares students for careers in various industries utilizing cutting-edge technology within video game design, graphic design, web design, and library professions. Students will specialize their degree from a choice of four tracks.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters, logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications.

The Web Design track provides the concepts and skills needed to create and produce web sites using industry-standard techniques using graphic and web design, and video editing applications. The Web Design track graduates will have the ability to create and maintain professional sites and also be capable of working with other web professionals such as programmers, network administrators and database administrators as well as interfacing with management and clients.

The Library and Information Technology track prepares graduates for paraprofessional library work.

The IMD Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on artistic and multimedia game design and development.

The courses within the Graphic and Web Design options will assist with preparation for Adobe Certifications and the Certified Internet Webmaster (CIW) certification exam. The Library and Information Technology option courses may be used to meet Kentucky public library certification requirements.

The IMD program also offers two certificates within the web and graphic design options. The web and graphic design certificates provide up-to-date training in current industry-standard software and trends for practitioners in the fields as well as introductory education for beginning students. In addition, the IMD program offers a certificate in Digital Video for students interested in film editing and cinematic arts.

Associate in Applied Science

Information Management and Design - 1108017019

(Offered at BLC)

General Education Courses

ENG	101	Writing I*	3
ENG	102	Writing II*	3
		Mathematics Course*	3
		Natural Sciences Course*	3
		Heritage/Humanities Course*	3
		Social/Behavioral Sciences Course*	3
		Subtotal	18

Core Content:

IMD	100	Digital Information and Communications Technologies	3
IMD	133	Beginning Web Design	3
IMD	126	Introduction to Desktop Publishing	3
IMD	115	Introduction to Graphic Design	3
IMD	270	Professional Practices	3
IMD	275	Information Management & Communications	3
COE	199	Coop Education OR	3
IMD	271	Internship	(3)
		Subtotal	21

Subtotal (General Education & Core Content) 39

*Satisfies General Education requirement for the AAS degree

Graphic Design Track - 110801702

(Offered at BLC)

IMD	127	Vector Design with Adobe Illustrator	3
IMD	128	Raster Design with Adobe Photoshop.....	3
IMD	180	Intermediate Web Design	3
IMD	226	Advanced Desktop Publishing	3
IMD	280	Portfolio Practicum: Graphic Design	3
IMD	277	Typography	3
IMD	228	Advanced Photoshop OR.....	3
IMD	229	Advanced Illustrator.....	(3)
		Subtotal	21

Total **60**

Library & Information Technology Track - 110801704

(Offered at BLC)

Available Completely Online

LIT	115	Introduction to Reference Services.....	3
LIT	124	Library Administration	3
LIT	132	Library Technical Services.....	3
LIT	243	Library Services for Children OR	3
LIT	245	Library Services for Young Adults OR.....	(3)
LIT	247	Library Services for Adults.....	(3)
		Library & Information Technology Track Courses	9

Choose a total of 9 hours from the following:

LIT	120	Readers' Advisory Services	3
LIT	243	Library Services for Children **.....	3
LIT	245	Library Services for Young Adults **	3
LIT	247	Library Services for Adults **	3
IMD	210	Microsoft Office Applications	3
LIT	285	History of Libraries	3
LIN	175	Information Literacy	3
LIT	299	Selected Topics in Library Information Management (may be repeated for up to 6 hours).....	1-3

** Course can be used as LIT track course if not utilized as LIT track core course

Subtotal **21**

Total **60**

Web Design Track– 110801703

(Offered at BLC)

IMD	128	Raster Design with Photoshop	3
IMD	180	Intermediate Web Design	3
IMD	230	Advanced Web Design	3
IMD	240	Multimedia Development for the Web.....	3
IMD	250	Digital Video Editing I	3
IMD	292	Portfolio Practicum: Web Design	3
		Web Design Track Courses.....	3

Choose from Web Design Track Courses:

IMD	115	Introduction to Graphic Design.....	3
IMD	127	Vector Design with Adobe Illustrator	3
IMD	290	Photography	3
IMD	294	Seminar in Information Management & Design Technologies	3
IMD	255	Digital Video Editing II	3
IMD	258	Visual Effects for Video	3
IMD	210	Microsoft Office Applications	3
CIT	150	Internet Technologies	3
CIT	120	Computational Thinking.....	3
CIT	140	JavaScript I.....	3
		Computer Programming Course Approved by Program Coordinator	
		Other Computer & Information Technologies and other Track Appropriate Courses Approved by Program Coordinator	
		Other Web or Graphic Design Courses Approved by Program Coordinator	
		Subtotal	21

Total **60**

Video Game Design Track– 110801705

(Offered at BLC)

IMD/CIT124	Introduction to Game Development	3
IMD/CIT274	Seminar in Game Development.....	3
IMD/CIT221	Computer Graphics	3
IMD/CIT222	3D Modeling for Video Games	3
IMD/CIT223	3D Animation for Video Games	3
IMD/CIT273	Game Production.....	3
	Video Game Design Track Course	3

Choose from Video Game Design Track Courses:

IMD	180	Intermediate Web Design with Photoshop	3
IMD	240	Multimedia Development for the Web.....	3
IMD	250	Digital Video Editing I	3
IMD	290	Photography	3
IMD	128	Raster Design with Photoshop	3
IMD	127	Vector Design with Illustrator	3
IMD	210	Microsoft Office Applications	3
IMD	228	Advanced Photoshop.....	3
IMD	294	Seminar in Information Management and Design.....	3
IMD	299	Selected Topics in Information Management and Design	3
MGT	282	Principles of Marketing.....	3
ENG	203	Business Writing	3
		Other Video Game Design Courses approved by Program Coordinator.....	3
		Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses Approved by Program Coordinator.....	3
		Subtotal	21

Total **60**

Certificate

Library Information Technology - 1108013019

(Offered at BLC)

The certificate in Library Information Technology prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to: perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, describe the role of libraries as agencies for information services. Courses taken for the Certificate in Library Information Technology may be used for the Associate of Applied Science degree in Information Management and Design, Library Information Technology track and as electives for the AA/AS degrees. All Library Information Technology courses are web-based distance courses.

Required:

LIT	115	Introduction to Reference Services.....	3
LIN	175	Information Literacy	3

Students will select one course from each of the following groups::

1. Library Procedures

LIT	124	Library Administration OR	3
LIT	132	Library Technical Services	(3)

2. Library Services

LIT	120	Readers' Advisory Services OR	3
LIT	243	Library Services for Children OR	3
LIT	245	Library Services for Young Adults OR.....	(3)
LIT	247	Library Services for Adults OR	(3)
LIT	248	Library Services for Preschool Children OR	(3)
LIT	280	Genealogy Services in Libraries	(3)

3. Library Information Technology Elective

LIT elective: any LIT course above LIT 115.....	3
Total	15

Graphic Design – 1108013029

(Offered at BLC)

IMD 115	Introduction to Graphic Design	3
IMD 133	Beginning Web Design	3
IMD 126	Introduction to Desktop Publishing	3
IMD 127	Vector Design with Adobe Illustrator	3
IMD 128	Raster Design with Adobe Photoshop.....	3
IMD 226	Advanced Desktop Publishing	3
Total		18

Web Design – 1108013039

(Offered at BLC)

IMD 128	Raster Design with Photoshop	3
IMD 133	Beginning Web Design	3
IMD 180	Intermediate Web Design	3
IMD 230	Advanced Web Design	3
IMD 240	Multimedia Development for the Web.....	3
IMD 250	Digital Video Editing I	3
Total		18

Digital Video – 1108013049

(Offered at BLC)

IMD 128	Raster Design with Adobe Photoshop.....	3
IMD 250	Digital Video Editing I	3
IMD 255	Digital Video Editing II	3
IMD 258	Visual Effects for Video	3
Total		12

Insurance Risk Management

The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) credential. Students will learn the foundations of insurance production and multiple lines insurance production. Students will also master the fundamentals of operating an agency and managing sales. Completers of this certificate program will be eligible to sit for the national Accredited Advisor in Insurance (AAI) Certification exam.

Certificate

Insurance and Risk Management – 5217013019

(Offered at JFC)

INS 100	Introduction to Insurance and Risk Management	3
INS 181	Foundations of Insurance Production	3
INS 182	Multiple Lines Insurance Production.....	3
INS 183	Agency Operations and Sales Management	3
Total Credits		12

Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and electropneumatics. Graduates will be able to work as maintenance technicians in most manufacturing settings, particularly manufacturing settings related to the automotive industry.

Associate in Applied Science

Integrated Engineering Technology – 1442017019

(Offered at BLC)

ENG 101	Writing I	3
MAT 126	Technical Algebra and Trigonometry OR	3
	Higher Level Quantitative Reasoning Course	(3)
	Social/Behavioral Sciences	3
	Heritage/Humanities	3
	Natural Sciences	3
	Oral Communications	3
Subtotal		18

Technical Courses:

	Computer/Digital literacy.....	3
IET 102	Preventive Maintenance	2
IET 104	Blueprint Reading/Schematics	2
IET 107	Basic Electricity/Electronics	3
IET 108	Mechanical Drive Systems	5
IET 109	Safety	3
IET 110	Welding and Fabrication.....	4
IET 120	Machine Tool Operations.....	4
IET 201	Electrohydraulics/Pneumatics	6
IET 203	Programmable Logic Controllers.....	5
IET 205	Robot Maintenance.....	4
IET 206	Controls and Instrumentation	5
Subtotal		46

Total Credits

64

Diploma

Integrated Engineering Technology – 1442014019

(Offered at BLC)

Area 1 =	Written/Oral Communications, or Heritage/Humanities ...	3
Area 2 =		
MAT 126	Technical Algebra and Trigonometry OR	3
	Higher Level Quantitative Reasoning Course	(3)
Subtotal		6

Technical Courses:

	Computer/Digital literacy.....	3
IET 102	Preventive Maintenance	2
IET 104	Blueprint Reading/Schematics	2
IET 107	Basic Electricity/Electronics	3
IET 108	Mechanical Drive Systems	5
IET 109	Safety	3
IET 110	Welding and Fabrication.....	4
IET 120	Machine Tool Operations.....	4
IET 201	Electrohydraulics/Pneumatics	6
IET 203	Programmable Logic Controllers.....	5
IET 205	Robot Maintenance.....	4
IET 206	Controls and Instrumentation	5
COE 199	Cooperative Education OR	1
COED 198	Practicum	(1)
Subtotal		47

Total Credits

53

Certificate

Electrical Engineering Technology – 1442013029

(Offered at BLC)

IET 107	Basic Electricity/Electronics	3
IET 203	Programmable Logic Controllers.....	5
IET 205	Robot Maintenance.....	4
IET 206	Controls and Instrumentation	5
Total Credits		17

Mechanical Engineering Technology – 1442013019

(Offered at BLC)

IET	102	Preventive Maintenance	2
IET	108	Mechanical Drive Systems	5
IET	201	Electrohydraulics/Pneumatics	6
IET	110	Welding and Fabrication.....	4
IET	120	Machine Tool Operations.....	4
Total Credits			21

Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students an understanding of the cognitive, physical, social and emotional development for working with young children. Opportunities to apply this knowledge in practical experiences are incorporated in the curriculum. Curriculum topics include, but are not limited, to developmental ages and stages, health and safety, curriculum planning, assessment and family involvement. Employment opportunities are available in public and private preschools, early care educational settings, early intervention programs, Head Start, hospitals, campus child development centers, rehabilitation clinics and recreation centers.

Students must earn a “C” or higher in each of the IEC courses in order to graduate.

Associate in Applied Science

Interdisciplinary Early Childhood Education - 1907097019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

ENG	101	Writing I	3
ENG	102	Writing II	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communications.....	(3)
PSY	110	General Psychology	3
		Heritage/Humanities	3-4
		Natural Sciences	3
		Quantitative Reasoning	3
Subtotal			21-22

Technical Core Courses

		Computer/Digital literacy.....	0-3
IEC	101	Orientation to Early Childhood Education.....	3
IEC	102	Foundations of Early Childhood Education.....	3
IEC	120	Health, Safety & Nutrition OR.....	3
KHP	230	Human Health & Wellness OR	(3)
NFS	101	Human Nutrition and Wellness.....	(3)
IEC	130	Early Childhood Development	3
IEC	170	Observation & Assessment OR.....	3
IEC	190	Applied Experiences in Early Childhood Education	(3)
IEC	180	Approaches to Early Childhood Education Curriculum	3
IEC	200	Child Guidance	3
IEC	216	Literacy and Language in IECE.....	3
IEC	221	Creative Expressions in IECE.....	3
IEC	246	Sciences and Mathematics for IECE	3
IEC	235	Introduction to Inclusive Education	3
IEC	260	Infant and Toddler Education and Programming	3
IEC	291	IECE Practicum/Cooperative Education	3
Subtotal			39-42

Computer/Digital literacy must be demonstrated by competency exam or by completing a computer/digital literacy course

Choose one course from the following approved technical support elective courses:

IEC	210	Families & Communities in Early Childhood Education	3
IEC	240	Administration of Early Childhood Education.....	3
IEC	250	School Age Child Care.....	3
Subtotal			3
Total Credits			63-67

Diploma

Interdisciplinary Early Childhood Education - 1907094019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SMC)

Area 1 =	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2 =	Social/Behavioral Sciences, or Quantitative Reasoning	3
Subtotal		6

		Computer/Digital Literacy course OR demonstrated competency.....	0-3
IEC	101	Orientation to Early Childhood Education.....	3
IEC	102	Foundations of Early Childhood Education.....	3
IEC	120	Health, Safety, and Nutrition OR	3
KHP	230	Human Health & Wellness OR	(3)
NFS	101	Human Nutrition and Wellness.....	(3)
IEC	130	Early Childhood Development	3
IEC	200	Child Guidance	3
IEC	180	Approaches to Early Childhood Education Curriculum	3
IEC	170	Observation and Assessment OR	3
IEC	190	Applied Experiences in Early Childhood Education	(3)
IEC	216	Literacy and Language in IECE.....	3
IEC	221	Creative Expressions in IECE.....	3
IEC	246	Sciences and Mathematics for IECE	3
IEC	235	Introduction to Inclusive Education	3
IEC	240	Administration of Early Childhood Education OR.....	3
IEC	250	School Age Child Care OR.....	(3)
IEC	210	Families & Communities in Early Childhood Education	(3)
IEC	260	Infant and Toddler Education and Programming	3
IEC	291	IECE Practicum/Cooperative Education	3
Subtotal			42-45

Total Credits: 48-51

Certificate

Interdisciplinary Early Childhood Education Technical Studies - 1907093019

(Offered at ASC, BLC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

Required:

IEC	101	Orientation to Early Childhood Education.....	3
IEC	102	Foundations of Early Childhood Education.....	3
IEC	120	Health, Safety, and Nutrition OR	3
KHP	230	Human Health & Wellness OR	(3)
NFS	101	Human Nutrition and Wellness.....	(3)
IEC	130	Early Childhood Development	3
IEC	200	Child Guidance	3
IEC	180	Approaches to Early Childhood Education Curriculum	3
IEC	170	Observation and Assessment OR	3
IEC	190	Applied Experiences in Early Childhood Education	(3)
IEC	216	Literacy and Language in IECE.....	3
IEC	221	Creative Expressions in IECE.....	3
IEC	246	Sciences and Mathematics for IECE	3
IEC	235	Introduction to Inclusive Education	3
IEC	240	Administration of Early Childhood Education OR.....	3
IEC	250	School Age Child Care OR.....	(3)
IEC	210	Families & Communities in Early Childhood Education	(3)
IEC	260	Infant and Toddler Education and Programming	3
IEC	291	IECE Practicum/Cooperative Education	3
Total Credits			42

Child Care Assistant - 1907093039

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Required:

IEC 101	Orientation to Early Childhood Education.....	3
IEC 102	Foundations of Early Childhood Education.....	3
	Any IECE three (3) hour course with the exception of IECE 190, IECE 230, IECE 250, and IECE 291.....	3
	Total Credits	9

Kentucky Child Care Provider - 1907093049

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required:

IEC 101	Orientation to Early Childhood Education.....	3
	Total Credits	3

Early Childhood Administrator - 1907093059

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

Option One: Course Work

Required:

IEC 101	Orientation to Early Childhood Education.....	3
IEC 102	Foundations of Early Childhood Education.....	3
IEC 240	Administration of Early Childhood Education.....	3
BAS 200	Small Business Management OR.....	3
IEC 230	Business Administration of ECE Programs.....	(3)
	Total Credits	12

Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102

Required:

IEC 240	Administration of Early Childhood Education.....	3
BAS 200	Small Business Management OR.....	3
IEC 230	Business Administration of ECE Programs.....	(3)

Option Three: With Life Skills Portfolio to replace competencies for IEC 101 and IEC 102

Required:

IEC 240	Administration of Early Childhood Education.....	3
BAS 200	Small Business Management OR.....	3
IEC 230	Business Administration of ECE Programs.....	(3)

Life Skills is defined as a Total of five years (10,000 Hours) of paid, full-time work experience in a licensed child care facility. Two and one-half years (5,000 Hours) must have been within the last five (5) years.

School Age Child Care - 1907093069

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, OWC, SMC, WKC)

IEC 101	Orientation to Early Childhood Education.....	3
IEC 102	Foundations of Early Childhood Education.....	3
IEC 130	Early Childhood Development.....	3
IEC 200	Child Guidance.....	3
IEC 250	School Age Child Care.....	3
	Total Credits	15

Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

Certificate

Invasive Cardiology – 5109153019

(Offered at JFC)

DMS 105	Introduction to Cardiology.....	13
IVC 140	Invasive Cardiology I.....	16
IVC 150	Invasive Cardiology II.....	3
IVC 160	Invasive Cardiology Clinical Education I.....	6
IVC 165	Invasive Cardiology Clinical Education II.....	6
	Total Credits:	44

Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

Associate in Applied Science

Logistics and Operations Management – 5202037019

(Offered at WKC)

General Education Courses

ENG 101	Writing I.....	3
MAT 110	Applied Mathematics or Higher General Education Quantitative Reasoning course.....	3
	Natural Sciences.....	3
	Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses).....	3
	Heritage/Humanities.....	3
COM 181	Basic Public Speaking OR.....	3
COM 252	Introduction to Interpersonal Communication.....	(3)
	Subtotal	18

Technical or Support Courses

ACC 201	Financial Accounting.....	3
ACC 202	Managerial Accounting.....	3
BAS 160	Introduction to Business.....	3
BAS 256	International Business.....	3
BAS 282	Principles of Marketing.....	3
BAS 283	Principles of Management OR.....	3
BAS 287	Supervisory Management.....	(3)
BAS 289	Operations Management.....	3
TEC 200	Technical Communications OR.....	3
ENG 102	Writing II.....	(3)
LOM 100	Introduction to Logistics Management.....	3
LOM 101	Transportation.....	3
LOM 102	Supply Chain Management.....	3
LOM 180	Project Management OR.....	3
LOM 210	Lean for Logistics.....	(3)
LOM 202	Applied Supply Chain Management.....	3
ECO 101	Contemporary Economic Issues OR.....	3
ECO 150	Global Economic Issues OR.....	(3)
ECO 201	Principles of Microeconomics OR.....	(3)

ECO 202	Principles of Macroeconomics	(3)
	Digital Literacy *	0-3
	Electives**	1-3
	Subtotal	43-48
	Total Credits	61-66

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

** May include BAS, QMS, STA or Business and Industry approved courses.

Certificates

Logistics Management – 5202033019

(Offered at WKC)

	Digital Literacy*	0-3
LOM 100	Introduction to Logistics Management.....	3
LOM 101	Transportation	3
LOM 102	Supply Chain Management.....	3
BAS 287	Supervisory Management	3
TEC 200	Technical Communications OR	3
ENG 101	Writing I	(3)
	Total Credits	15-18

Supply Chain Management – 5202033029

(Offered at WKC)

BAS 160	Introduction to Business	3
BAS 289	Operations Management	3
LOM 100	Introduction to Logistics Management.....	3
LOM 101	Transportation	3
LOM 102	Supply Chain Management.....	3
LOM 202	Applied Supply Chain Management	3
	Total Credits	18

Logistics Technology– 5202033039

(Offered at WKC)

	Digital Literacy*	0-3
LOM 100	Introduction to Logistics Management.....	3
LOM 101	Transportation	3
LOM 102	Supply Chain Management.....	3
LOM 180	Project Management OR	3
LOM 210	Lean for Logistics	(3)
	Total Credits	12-15

International Logistics – 5202033049

(Offered at WKC)

BAS 160	Introduction to Business	3
BAS 256	International Business	3
LOM 100	Introduction to Logistics Management.....	3
LOM 101	Transportation	3
LOM 102	Supply Chain Management.....	3
	Total Credits	15

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Manufacturing Engineering Technology

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to assist in leading projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

Associate in Applied Science

Manufacturing Engineering Technology - 1506137029

(Offered at GTW)

General Education

COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communications.....	(3)
ENG 101	Writing I	3
MAT 150	College Algebra	3
MAT 155	Trigonometry	3
STA 220	Statistical Method OR	3
MAT 170	Brief Calculus with Applications	(3)
PSY 110	General Psychology OR	3
SOC 101	Introduction to Sociology	(3)
	Natural Sciences	3
	Heritage /Humanities	3
	Subtotal	24

Core

	Computer/Digital Literacy	0-3
BAS 160	Introduction to Business	3
COE 199	Cooperative Education OR	1
MFG 175	Lean Operations	(2)
ELT 110	Circuits I	5
ELT 201	Statics and Strengths of Materials	4
BAS 289	Operations Management OR	3
MFG 256	Production Management	(3)
MFG 135	Fundamentals of Mechatronics	6
QMS 101	Introduction to Quality Systems	3
	Subtotal	25-29

Technical Electives

BAS 287	Supervisory Management	3
BAS 288	Personal and Organizational Leadership.....	3
BRX 112	Blueprint Reading for Machinists OR	4
BRX 120	Basic Blueprint Reading	(3)
COE 199	Cooperative Education	1-5
CAD 102	Drafting Fundamentals OR	4
CAD 112	Engineering Graphics	(4)
DFT 152	Intermediate Computer Aided Drafting	4
EET 154	Electrical Construction I	2
EET 155	Electrical Construction I Lab	2
EET 264	Rotating Machinery	2
EET 265	Rotating Machinery Lab	2
EET 270	Electrical Motor Controls I	2
EET 271	Electrical Motor Controls I Lab	2
EET 272	Electrical Motor Controls II	2
EET 273	Electrical Motor Controls II Lab	2
EET 276	Programmable Logic Controllers.....	2
EET 277	Programmable Logic Controllers Lab	2
ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 260	Robotics and Industrial Automation	5
ETT 110	Voice & Data Installer Level I.....	4

FPX	100	Fluid Power	3
FPX	101	Fluid Power Lab	2
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
MFG	145	Manufacturing Processes OR	3
CMM	110	Fundamentals of Machine Tool - A	(3)
CMM	112	Fundamentals of Machine Tool – B	4
CMM	118	Metrology and Control Charts	3
CMM	130	Manual Programming	3
CMM	132	CAD/CAM/CNC	3
MFG	256	Production Management	3
QMS	101	Introduction to Quality Systems	3
QMS	220	Quality Audits	3
QMS	240	Statistics for Quality I (if ST291 is not taken in the core).....	3
		Subtotal	14
		Total Credits	63-67

A minimum of fourteen (14) credit hours must be taken from the approved technical elective list. Other courses may be taken with the approval of the program coordinator.

Certificates

Integrated Manufacturing Technologies - 1506133069

(Offered at GTW)

FPX	100	Fluid Power	3
FPX	101	Fluid Power Lab	2
ELT	110	Circuits I	5
IMT	150	Maintaining Industrial Equipment	3
IMT	151	Maintaining Industrial Equipment Lab	2
EET	270	Electrical Motor Controls I	2
EET	271	Electrical Motor Controls I Lab	2
		Total Credits	19

Quality Control - 1506133049

(Offered at GTW)

General Education

COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communications.....	(3)
MAT	150	College Algebra	3
		Subtotal	6

Core

BRX	112	Blueprint Reading for Machinists OR.....	4
BRX	120	Basic Blueprint Reading OR	(3)
CAD	102	Drafting Fundamentals OR	(4)
CAD	112	Engineering Graphics	(4)
CMM	118	Metrology and Control Charts	3
QMS	101	Introduction to Quality Systems	3
QMS	220	Quality Audits	3
STA	220	Statistics OR	3
QMS	240	Statistics for Quality I.....	(3)
		Subtotal	15-16
		Total	21-22

Operations Management - 5202013369

(Offered at BSC, GTW)

General Education

COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communications.....	(3)
		Subtotal	3

Core

BAS	160	Introduction to Business	3
BAS	287	Supervisory Management OR	3
BAS	288	Personal and Organizational Leadership OR.....	(3)
QMS	101	Introduction to Quality Systems	(3)

BAS	289	Operations Management OR	3
MFG	256	Production Management	(3)
		Subtotal	9
		Total	12

Fundamentals of Mechatronics - 1500003219

(Offered at BSC)

MFG	135	Fundamentals of Mechatronics OR.....	6
MFG	125	Special Topics in Engineering Technology: Fundamentals of Mechatronics – A AND	(3)
MFG	130	Special Topics in Engineering Technology: Fundamentals of Mechatronics – B	(3)
		Total	6

Enhanced Operator – 1506133119

(Offered at GTW)

WPP	2001	Soft Skills.....	1
ISX	1001	Safety & Universal Precaution	1
MAT	110	Applied Mathematics.....	3
QMS	101	Introduction to Quality Systems	3
CMM	118	Metrology & Control Charts	2
MFG	175	Lean Operations	2
IET	1206	Hand & Power Tools	
QMS	299	Selected Topics in Quality Management Systems: Yellow Belt Certification	1
		Total	14

Manufacturing Industrial Technology

Two programs are offered under the broader heading of MIT.

They are Electrical Technology
and Industrial Maintenance Technology

MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering three different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

Associate in Applied Science

Electrical Technology - 4603027039

(Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, SKY, WKC)

General Education:

ENG	101	Writing I	3
MAT	116	Technical Mathematics OR.....	3
MAT	126	Technical Algebra & Trigonometry OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Natural Sciences	3
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
		Oral Communications	3
		Subtotal	18

Technical Core:

ELT	110	Circuits I OR	5
EET	119	Basic Electricity	(5)
		Approved Course from the Technical Core List	4-5
EET	250	National Electric Code	4
EET	264	Rotating Machinery	2
EET	265	Rotating Machinery Lab	2
EET	270	Electrical Motor Controls I	2
EET	271	Electrical Motor Controls I Lab	2
EET	127	Electrical Capstone.....	1
		Digital Literacy OR	3
		If any student successfully tests out of Computer/Digital Literacy he/she must take an additional Technical Course approved by the Electrical Program Coordinator.	(3)
		Subtotal	25-26

Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

ELT	114	Circuits II	5
EET	150	Transformers AND	2
EET	151	Transformers Lab.....	1
ELT	260	Robotics and Industrial Automation	5
EET	154	Electrical Construction I AND	2
EET	155	Electrical Construction I Lab	2
EET	276	Programmable Logic Controllers AND.....	2
EET	277	Programmable Logic Controllers Lab	2

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

Industrial Electrician Track - 460302701

(Offered at BSC, BLC, ELC, GTW, HPC, OWC, WKC)

EET	154	Electrical Construction I AND	2
EET	155	Electrical Construction I Lab AND.....	2
EET	252	Electrical Construction II AND	2
EET	253	Electrical Construction II Lab OR.....	2
EET	254	Electrical Construction AND.....	(3)
EET	255	Electrical Construction Lab.....	(4)
EET	272	Electrical Motor Controls II AND	2
EET	273	Electrical Motor Controls II Lab AND.....	2
EET	276	Programmable Logic Controllers AND.....	2
EET	277	Programmable Logic Controllers Lab OR	2
EET	278	Electrical Motor Controls II and PLCs AND	(3)
EET	279	Electrical Motor Controls II and PLCs Lab	(4)
		Technical Electives*	8
		Subtotal	22-24
		Total Credits	65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Construction Electrician Track - 460302702

(Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, WKC)

EET	154	Electrical Construction I AND	2
EET	155	Electrical Construction I Lab AND.....	2
EET	252	Electrical Construction II AND	2
EET	253	Electrical Construction II Lab OR.....	2
EET	254	Electrical Construction AND.....	(3)
EET	255	Electrical Construction Lab.....	(4)
		Technical Electives*	10
		Subtotal	17-18
		Total Credits	60-61

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Motor Controls Electrician Track - 460302703

(Offered at BSC, BLC, HPC, OWC, WKC)

EET	272	Electrical Motor Controls II AND	2
EET	273	Electrical Motor Controls II Lab AND.....	2
EET	276	Programmable Logic Controllers AND.....	2
EET	277	Programmable Logic Controllers Lab OR	2
EET	278	Electrical Motor Controls II and PLC's AND.....	(3)
EET	279	Electrical Motor Controls II and PLC's Lab.....	(4)
FPX	100	Fluid Power AND.....	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
		Technical Electives*	7
		Subtotal	17-20
		Total Credits	60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Diploma

Electrical Technology - 4603024049

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1

Written Communication OR.....	3
Heritage/ Humanities OR	(3)
Oral Communications	(3)

Area 2

MAT	116	Technical Mathematics OR.....	3
MAT	126	Technical Algebra & Trigonometry OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
		Subtotal	6

Technical Core:

ELT	110	Circuits I OR	5
EET	119	Basic Electricity	(5)
		Approved Course from Technical Core List	4-5
EET	250	National Electric Code	4
EET	264	Rotating Machinery	2
EET	265	Rotating Machinery Lab	2
EET	270	Electrical Motor Controls I.....	2
EET	271	Electrical Motor Controls I Lab.....	2
EET	127	Electrical Capstone.....	1
		Digital Literacy OR	3
		If any student successfully tests out of Digital Literacy he/she must take an additional Technical Course approved by the Electrical Program Coordinator	(3)
		Subtotal	25-26

Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

EET	114	Circuits II	5
EET	150	Transformers AND	2
EET	151	Transformers Lab.....	1
ELT	260	Robotics and Industrial Automation	5
EET	154	Electrical Construction I AND	2
EET	155	Electrical Construction I Lab	2
EET	276	Programmable Logic Controllers AND.....	2
EET	277	Programmable Logic Controllers Lab	2

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

Industrial Electrician Track - 460302401

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab AND	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab OR	2
EET 254	Electrical Construction AND	(3)
EET 255	Electrical Construction Lab	(4)
EET 272	Electrical Motor Controls II AND	2
EET 273	Electrical Motor Controls II Lab AND	2
EET 276	Programmable Logic Controllers AND	2
EET 277	Programmable Logic Controllers Lab OR	2
EET 278	Electrical Motor Controls II and PLCs AND	(3)
EET 279	Electrical Motor Controls II and PLCs Lab	(4)
	Technical Electives*	9
	Subtotal	23-25
	Total Credits	54-57

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Construction Electrician Track - 460302402

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab AND	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab OR	2
EET 254	Electrical Construction AND	(3)
EET 255	Electrical Construction Lab	(4)
	Technical Electives*	10
	Subtotal	17-18
	Total Credits	48-50

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Motor Controls Electrician Track - 460302403

(Offered at BLC, BSC, HPC, OWC, WKC)

EET 272	Electrical Motor Controls II AND	2
EET 273	Electrical Motor Controls II Lab AND	2
EET 276	Programmable Logic Controllers AND	2
EET 277	Programmable Logic Controllers Lab OR	2
EET 278	Electrical Motor Controls II and PLC's AND	(3)
EET 279	Electrical Motor Controls II and PLC's Lab	(4)
FPX 100	Fluid Power AND	3
FPX 101	Fluid Power Lab OR	2
ELT 265	Applied Fluid Power	(3)
	Technical Electives*	7
	Subtotal	17-20
	Total Credits	48-52

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Certificates

Electrical Construction - 4603023029

(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
EET 150	Transformers	2
EET 151	Transformers Lab	1

EET 250	National Electric Code	4
EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab AND	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab OR	2
EET 254	Electrical Construction AND	(3)
EET 255	Electrical Construction Lab	(4)
EET 264	Rotating Machinery AND	2
EET 265	Rotating Machinery Lab AND	2
EET 270	Electrical Motor Controls I AND	2
EET 271	Electrical Motor Controls I Lab OR	2
EET 268	Rotating Machinery Electrical Motor Controls I AND	(3)
EET 269	Rotating Machinery Electrical Motor Controls I Lab	(4)
	Technical Electives	5
	Total Credits	31-33

Electrician Trainee Level I - 4603023039

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
	Technical Electives	3
	Total Credits	8

Electrician Trainee Level II - 4603023059

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
	Technical Electives	8
	Total Credits	13

Residential Electricity Level I - 4603023049

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
EET 154	Electrical Construction I	2
EET 155	Electrical Construction I Lab	2
	Technical Electives	5
	Total Credits	14

Residential Electricity Level II - 4603023069

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab AND	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab OR	2
EET 254	Electrical Construction AND	(3)
EET 255	Electrical Construction Lab	(4)
EET 250	National Electrical Code	4
	Technical Electives	5
	Total Credits	21-22

Electrical Motor Control Level I - 4603023079

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT 110	Circuits I OR	5
EET 119	Basic Electricity	(5)
EET 150	Transformers AND	2
EET 151	Transformers Lab AND	1
EET 264*	Rotating Machinery AND	2
EET 265*	Rotating Machinery Lab OR	2

EET	266	Rotating Machinery and Transformers AND	(3)
EET	267	Rotating Machinery and Transformers Lab	(3)
EET	250	National Electrical Code	4
EET	270	Electrical Motor Controls I AND	2
EET	271	Electrical Motor Controls I Lab AND	2
EET	264*	Rotating Machinery AND	(2)
EET	265*	Rotating Machinery Lab OR	(2)
EET	268	Rotating Machinery Electrical Motor Controls I AND	(3)
EET	269	Rotating Machinery Electrical Motor Controls I Lab	(4)
		Digital Literacy Course	3
		If any student successfully tests out of Digital Literacy, he/ she must take an additional Technical Course approved by the Electrical Program Coordinator	(3)
		Total Credits	23-25

*May be offered in different combinations.

Electrical Motor Control Level II - 4603023089

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

ELT	110	Circuits I OR	5
EET	119	Basic Electricity	(5)
EET	150	Transformers AND	2
EET	151	Transformers Lab AND	1
EET	264*	Rotating Machinery AND	2
EET	265*	Rotating Machinery Lab OR	2
EET	266	Rotating Machinery and Transformers AND	(3)
EET	267	Rotating Machinery and Transformers Lab	(3)
EET	250	National Electrical Code	4
EET	264*	Rotating Machinery AND	(2)
EET	265*	Rotating Machinery Lab AND	(2)
EET	270	Electrical Motor Controls I AND	2
EET	271	Electrical Motor Controls I Lab OR	2
EET	268	Rotating Machinery Electrical Motor Controls I AND	(3)
EET	269	Rotating Machinery Electrical Motor Controls I Lab	(4)
EET	272	Electrical Motor Controls II AND	2
EET	273	Electrical Motor Controls II Lab AND	2
EET	276	Programmable Logic Controllers AND	2
EET	277	Programmable Logic Controllers Lab OR	2
EET	278	Electrical Motor Controls II and PLCs AND	(3)
EET	279	Electrical Motor Controls II and PLCs Lab	(4)
		Digital Literacy Course	3
		If any student successfully tests out of Digital Literacy, he/ she must take an additional Technical Course approved by the Electrical Program Coordinator	(3)
		Total Credits	34

* May be offered in different combinations.

Voice and Data Wiring Installer Level I - 4603023099

(Offered at ASC, BLC, GTW, HPC, SMC)

		Digital Literacy Course	3
		If any student successfully tests out of Digital Literacy, he/ she must take an additional Technical Course approved by the Electrical Program Coordinator	(3)
EET	154	Electrical Construction I	2
EET	155	Electrical Construction I Lab	2
ETT	110	Voice and Data Installer Level 1	4
ETT	112	Basic Electrical Theory	3
ETT	113	Basic Electrical Theory Lab	1
		Total Credits	15

Voice and Data Wiring Installer Level II - 4603023109

(Offered at BLC, GTW, HPC, SMC)

EET	252	Electrical Construction II	2
EET	253	Electrical Construction II Lab	2
ETT	114	Voice and Data Installer Level 2	4
ETT	116	Fiber Optics Systems	3
ETT	118	Residential Network Wiring	3
		Total Credits	14

Voice and Data Wiring Technician - 4603023119

(Offered at BLC, GTW, HPC, SMC)

ETT	120	Project Management	3
ETT	122	Voice and Data Installer Technician	3
ETT	123	Voice and Data Installer Technician Lab	2
ETT	199	Cooperative Education for Voice and Data Wiring Technicians	3
		Total Credits	11

MIT: Industrial Maintenance Technology

Industrial Maintenance Track:

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Advanced Manufacturing Technician Track

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (5S), Lean Manufacturing, Problem Solving and Maintenance Reliability, coupled with Personal Behavior development (Attendance, Communication, Diligence, Teamwork, Initiative, and Interpersonal Relations) within the program pathway. Successful students apply learned skills throughout the program in the campus classroom, campus laboratory and manufacturing workplace. The advanced manufacturing technician (AMT) track develops multiple skills within the industrial maintenance pathway for manufacturing employers.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade "C" or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

AMTEC Track

This program affords students the opportunity to achieve an understanding of the advanced skills needed to obtain a successful career in a constantly changing and globally competitive workforce. Students are trained in the multi-skilled maintenance trade with an emphasis on those skills needed in automotive industrial facilities.

Progression in the Industrial Maintenance AMTEC track is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Industrial Maintenance Technology - 4703037019

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SKY, SMC, WKC)

General Education Core:

ENG 101	Writing I	3
MAT 116	Technical Mathematics OR Higher	3
	Natural Sciences	3
	Heritage/Humanities	3
	Social/Behavioral Sciences	3
	Oral Communications	3
	Subtotal	18

Industrial Maintenance Track- 470303701

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, SKY, SMC, WKC)

Technical Core:

	Digital Literacy	3
BRX 110	Basic Blueprint Reading for Machinist OR	(2)
BRX 120	Basic Blueprint Reading OR	3
ELT 102	Blueprint Reading	(2)
FPX 100	Fluid Power AND	3
FPX 101	Fluid Power Lab OR	2
ELT 265	Applied Fluid Power	(3)
IMT 110	Industrial Maintenance Electrical Principles AND	3
IMT 111	Industrial Maintenance Electrical Principles Lab OR	2
ELT 110	Circuits I OR	(5)
EET 119	Basic Electricity	(5)
IMT 150	Maintaining Industrial Equipment I AND	3
IMT 151	Maintaining Industrial Equipment I Lab	2
IMT 220	Industrial Maintenance Electrical Motor Controls I AND	3
IMT 221	Industrial Maintenance Electrical Motor Controls I Lab OR	2
EET 270	Electrical Motor Controls I AND	(2)
EET 271	Electrical Motor Controls I Lab OR	(2)
ELT 244	Electrical Machinery and Controls OR	(4)
IMT 120	Industrial Maintenance Rotating Machinery AND	(3)
IMT 121	Industrial Maintenance Rotating Machinery Lab OR	(2)
EET 264	Rotating Machinery AND	(2)
EET 265	Rotating Machinery Lab	(2)
IMT 100	Welding for Maintenance AND	3
IMT 101	Welding for Maintenance Lab OR	2
WLD 120	Shielded Metal Arc Welding AND	(2)
WLD 121	Shielded Metal Arc Welding Fillet Lab OR	(3)
WLD 140	Gas Metal Arc Welding AND	(2)
WLD 141	Gas Metal Arc Welding Fillet Lab OR	(3)
WLD 152	Basic Welding B	(5)
IMT 289	Industrial Maintenance Technology Capstone	1
	Subtotal	28-32

Technical Electives:

Eighteen (18) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal	18
Total Credits	64-68

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Technical Electives List*:

ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 250	Cooling and Dehumidification	3
ACR 251	Cooling and Dehumidification Lab	2
ACR 260	Heating and Humidification	3
ACR 261	Heating and Humidification Lab	2
BRX 210	Mechanical Blueprint Reading for Machinist	2

CAD 100	Introduction to Computer Aided Design OR	3
	Modules CAD 1001 – 1004	(3)
CAD 150	Introduction to Programming: CAD	4
CMM 110	Fundamentals of Machine Tools – A	3
CMM 112	Fundamentals of Machine Tools – B	3
CMM 114	Fundamentals of Machine Tools	6
CMM 120	Applied Machining I	3
CMM 122	Applied Machining II	3
CMM 124	Applied Machining	6
CMM 224	Advanced Industrial Machining	6
COE 199	Cooperative Education	1-8
EET 148	Electronic Drafting	3
EET 150	Transformers	2
EET 151	Transformers Lab	1
EET 254	Electrical Construction	3
EET 255	Electrical Construction Lab	4
EET 264	Rotating Machinery	2
EET 265	Rotating Machinery Lab	2
EET 276	Programmable Logic Controllers	2
EET 277	Programmable Logic Controllers Lab	2
ELT 106	Mechanical Engineering Graphics	2
ELT 122	Mechanical Power Transmission Systems	3
ELT 124	Mechanical Power Transmission Systems Lab	1
ELT 243	Electric Power Distribution	3
ELT 250	Programmable Logic Controllers	4
IMT 100	Welding for Maintenance	3
IMT 101	Welding for Maintenance Lab	2
IMT 115	Maintenance Machining I	2
IMT 116	Maintenance Machining I Lab	5
IMT 120	Industrial Maintenance Rotating Machinery	3
IMT 121	Industrial Maintenance Rotating Machinery Lab	2
IMT 130	Industrial Maintenance Electrical Concepts	6
IMT 150	Maintaining Industrial Equipment	3
IMT 151	Maintaining Industrial Equipment Lab	2
IMT 198	Practicum	1-8
IMT 199	Cooperative Education	1-8
IMT 200	Industrial Robotics and Robotic Maintenance	4
IMT 220	Industrial Maintenance Electrical Motor Controls I	3
IMT 221	Industrial Maintenance Electrical Motor Controls I Lab	2
IMT 230	Industrial Maintenance of PLCs	5
IMT 231	Industrial Maintenance of PLCs Lab	2
IMT 240	Industrial Maintenance Motor Control Concepts	6
IMT 241	Industrial Maintenance Motor Control Concepts Lab	4
IMT 250	Maintaining Industrial Equipment II	2
IMT 251	Maintaining Industrial Equipment II Lab	3
IMT 280	Advanced Programmable Logic Controllers	3
IMT 281	Advanced Programmable Logic Controllers Lab	2
IMT 289	Industrial Maintenance Technology Capstone	1
IMT 290	Special Problems	1
ISX 100	Industrial Safety	3
ISX 101	Introduction to Industrial Safety	3
MST 200	Advanced Hydraulic Systems	3
MST 201	Advanced Hydraulic Systems Lab	2
MST 204	Advanced Pneumatic Systems	3
MST 205	Advanced Pneumatic Systems Lab	2
PLB 150	Plumbing, Introduction to the Trade	3
PLB 151	Basic Plumbing Skills	3
PHS 175	Applied Physics	6
PHX 150	Introductory Physics	3
PMX 100	Precision Measurement	3
WLD 100	Oxy-Fuel Systems	2
WLD 101	Oxy-Fuel Systems Lab	2
WLD 123	Shielded Metal Arc Welding Groove Welds with Backing Lab	3
WLD 151	Basic Welding A	2

Advanced Manufacturing Technician Track- 470303702

(Offered at BSC, BLC, ELC, GTW, HEC, HPC, JFC, SKY, SMC)

Technical Core:

	Digital Literacy	3
BRX	120 Basic Blueprint Reading	3
CMM	110 Fundamentals of Machine Tools – A	3
EET	270 Electrical Motor Controls I AND	2
EET	271 Electrical Motor Controls I Lab	2
EET	272 Electrical Motor Controls II AND	2
EET	273 Electrical Motor Controls Lab II	2
EET	276 Programmable Logic Controllers AND	2
EET	277 Programmable Logic Controllers Lab	2
FPX	100 Fluid Power AND	3
FPX	101 Fluid Power Lab	2
IET	1301 Safety Culture	1
IET	1302 5S	1
IET	1303 Total Production System Maintenance	1
IET	1304 Problem Solving	1
IET	1305 Maintenance Reliability	1
IMT	100 Welding for Maintenance AND	3
IMT	101 Welding for Maintenance Lab	2
IMT	110 Industrial Maintenance Electrical Principles AND	3
IMT	111 Industrial Maintenance Electrical Principles Lab	2
IMT	150 Maintaining Industrial Equipment AND	3
IMT	151 Maintaining Industrial Equipment Lab	2
IMT	198 Practicum	2
IMT	200 Industrial Robotics and Robotic Maintenance	4
IMT	289 Industrial Maintenance Technology Capstone	1
	Subtotal	53
	Total Credits	71

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.

Automotive Manufacturing Technical Education Collaborative (AMTEC) Track- 470303703

(Offered at BSC, BLC, HPC, JFC, SMC)

Technical Core:

	Digital Literacy	3
BRX	110 Basic Blueprint Reading for Machinist OR	(2)
BRX	120 Basic Blueprint Reading OR	3
ELT	102 Blueprint Reading	(2)
FPX	100 Fluid Power AND	3
FPX	101 Fluid Power Lab OR	2
ELT	265 Applied Fluid Power	(3)
IMT	110 Industrial Maintenance Electrical Principles AND	3
IMT	111 Industrial Maintenance Electrical Principles Lab OR	2
ELT	110 Circuits I OR	(5)
EET	119 Basic Electricity	(5)
IMT	150 Maintaining Industrial Equipment I AND	3
IMT	151 Maintaining Industrial Equipment I Lab	2
IMT	220 Industrial Maintenance Electrical Motor Controls I AND	3
IMT	221 Industrial Maintenance Electrical Motor Controls I Lab OR	2
EET	270 Electrical Motor Controls I AND	(2)
EET	271 Electrical Motor Controls I Lab OR	(2)
ELT	244 Electrical Machinery and Controls OR	(4)
IMT	120 Industrial Maintenance Rotating Machinery AND	(3)
IMT	121 Industrial Maintenance Rotating Machinery Lab OR	(2)
EET	264 Rotating Machinery AND	(2)
EET	265 Rotating Machinery Lab	(2)
IMT	100 Welding for Maintenance AND	3
IMT	101 Welding for Maintenance Lab OR	2
WLD	120 Shielded Metal Arc Welding AND	(2)
WLD	121 Shielded Metal Arc Welding Fillet Lab OR	(3)
WLD	140 Gas Metal Arc Welding AND	(2)
WLD	141 Gas Metal Arc Welding Fillet Lab OR	(3)

WLD	152	Basic Welding B	(5)
IMT	289	Industrial Maintenance Technology Capstone	1
		Subtotal	28-32

Technical Electives:

IET	109	Safety	3
IET	120	Machine Tool Operations	4
IET	203	Programmable Logic Controllers	5
IET	205	Robot Maintenance	4
		Subtotal	16
		Total Credits	62-66

Diploma

Industrial Maintenance Technician - 4703034049

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1 =

Written Communication, Oral Communications, or
Heritage/Humanities

Area 2 =

Technical Mathematics OR Higher

Subtotal

Technical Core:

	Digital Literacy	3
BRX	120 Basic Blueprint Reading OR	3
BRX	110 Basic Blueprint Reading for Machinist OR	(2)
BRX	112 Blueprint Reading for Machinist OR	(4)
ELT	102 Blueprint Reading	(2)
FPX	100 Fluid Power AND	3
FPX	101 Fluid Power Lab OR	2
ELT	265 Applied Fluid Power	(3)
IMT	110 Industrial Maintenance Electrical Principles AND	3
IMT	111 Industrial Maintenance Electrical Principles Lab OR	2
ELT	110 Circuits I OR	(5)
EET	119 Basic Electricity	(5)
IMT	150 Maintaining Industrial Equipment I AND	3
IMT	151 Maintaining Industrial Equipment I Lab	2
IMT	220 Industrial Maintenance Electrical Motor Controls I AND	3
IMT	221 Industrial Maintenance Electrical Motor Controls I Lab OR	2
EET	270 Electrical Motor Controls I AND	(2)
EET	271 Electrical Motor Controls I Lab OR	(2)
ELT	244 Electrical Machinery and Controls OR	(4)
IMT	120 Industrial Maintenance Rotating Machinery AND	(3)
IMT	121 Industrial Maintenance Rotating Machinery Lab OR	(2)
EET	264 Rotating Machinery AND	(2)
EET	265 Rotating Machinery Lab	(2)
IMT	100 Welding for Maintenance AND	3
IMT	101 Welding for Maintenance Lab OR	2
WLD	120 Shielded Metal Arc Welding AND	(2)
WLD	121 Shielded Metal Arc Welding Fillet Lab OR	(3)
WLD	140 Gas Metal Arc Welding AND	(2)
WLD	141 Gas Metal Arc Welding Fillet Lab OR	(3)
WLD	152 Basic Welding B	(5)
IMT	289 Industrial Maintenance Technology Capstone	1
	Subtotal	28-32

Technical Electives:

Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/ advisor.

Subtotal

Total Credits

**If courses equaling 10 credits are taken, five (5) credits may be used as electives.

Certificates

Fluid Power Mechanic - 4703033129

(Offered at BLC, BSC, HEC, HPC, MYC, OWC, SMC,)

FPX	100	Fluid Power AND	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
MST	200	Advanced Hydraulic Systems AND	3
MST	201	Advanced Hydraulic Systems Lab OR	2
MST	204	Advanced Pneumatic Systems AND	(3)
MST	205	Advanced Pneumatic Systems Lab	(2)
Total Credits			8-10

Industrial Maintenance Machinists Mechanic - 4703033119

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

BRX	120	Basic Blueprint Reading OR	3
BRX	110	Basic Blueprint Reading for Machinist OR	(2)
BRX	112	Blueprint Reading for Machinist OR	(4)
ELT	102	Blueprint Reading	(2)
IMT	100	Welding for Maintenance AND	3
IMT	101	Welding for Maintenance Lab OR	2
WLD	120	Shielded Metal Arc Welding AND	(2)
WLD	121	Shielded Metal Arc Welding Fillet Lab OR	(3)
WLD	140	Gas Metal Arc Welding AND	(2)
WLD	141	Gas Metal Arc Welding Fillet Lab OR	(3)
WLD	152	Basic Welding B	(5)
IMT	115	Maintenance Machining I AND	2
IMT	116	Maintenance Machining I Lab OR	5
CMM	114	Fundamentals of Machine Tools OR	(6)
CMM	110	Fundamentals of Machine Tools -A AND	(3)
CMM	112	Fundamentals of Machine Tools -B	(3)
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
Total Credits			19-21

Industrial Maintenance Electrical Mechanic - 4703033159

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

FPX	100	Fluid Power AND	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
IMT	110	Industrial Maintenance Electrical Principles AND	3
IMT	111	Industrial Maintenance Electrical Principles Lab OR	2
ELT	110	Circuits I OR	(5)
EET	119	Basic Electricity	(5)
IMT	220	Industrial Maintenance Electrical Motor Controls I AND	3
IMT	221	Industrial Maintenance Electrical Motor Controls I Lab OR	2
EET	270	Electrical Motor Controls I AND	(2)
EET	271	Electrical Motor Controls I Lab OR	(3)
ELT	244	Electrical Machinery and Controls OR	(4)
IMT	120	Industrial Maintenance Rotating Machinery AND	(3)
IMT	121	Industrial Maintenance Rotating Machinery Lab OR	(2)
EET	264	Rotating Machinery AND	(2)
EET	265	Rotating Machinery Lab OR	(2)
IMT	280	Advanced Programmable Logic Controllers AND	(3)
IMT	281	Advanced Programmable Logic Controllers Lab OR	(2)
EET	276	Programmable Logic Controllers AND	(2)
EET	277	Programmable Logic Controllers Lab	(2)
Total Credits			12-15

Industrial Maintenance Mechanic Level I - 4703033139

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

FPX	100	Fluid Power AND	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)

IMT	110	Industrial Maintenance Electrical Principles AND	3
IMT	111	Industrial Maintenance Electrical Principles OR	2
ELT	110	Circuits I OR	(5)
EET	119	Basic Electricity	(5)
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
Total Credits			13-15

Industrial Maintenance Mechanic Level II - 4703033149

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

BRX	120	Basic Blueprint Reading OR	3
BRX	110	Basic Blueprint Reading for Machinist OR	(2)
BRX	112	Blueprint Reading for Machinist OR	(4)
ELT	102	Blueprint Reading	(2)
FPX	100	Fluid Power AND	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
IMT	110	Industrial Maintenance Electrical Principles AND	3
IMT	111	Industrial Maintenance Electrical Principles OR	2
ELT	110	Circuits I OR	(5)
EET	119	Basic Electricity	(5)
IMT	100	Welding for Maintenance AND	3
IMT	101	Welding for Maintenance Lab OR	2
WLD	120	Shielded Metal Arc Welding AND	(2)
WLD	121	Shielded Metal Arc Welding Fillet Lab OR	(3)
WLD	140	Gas Metal Arc Welding AND	(2)
WLD	141	Gas Metal Arc Welding Fillet Lab OR	(3)
WLD	152	Basic Welding B	(5)
IMT	115	Maintenance Machining I AND	2
IMT	116	Maintenance Machining I Lab OR	5
CMM	114	Fundamentals of Machine Tools OR	(6)
CMM	110	Fundamentals of Machine Tools-A AND	(3)
CMM	112	Fundamentals of Machine Tools-B	(3)
Total Credits			22-26

Electro-hydraulic Technician - 4703033169

(Offered at BLC, HPC, JFC, MYC, OWC, SMC)

IMT	110	Industrial Maintenance Electrical Principles AND	3
IMT	111	Industrial Maintenance Electrical Principles Lab OR	2
ELT	110	Circuits I OR	(5)
EET	119	Basic Electricity	(5)
FPX	100	Fluid Power AND	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
MST	206	Electro-hydraulic	3
MST	207	Electro-hydraulic Lab	2
Total Credits			13-15

Chemical Operator - 4703033179

(Offered at MYC, WKC)

CHE	140	Introductory General Chemistry	3
CHE	145	Introductory General Chemistry Lab	1
GEN	276	Employment and Professional Skills	1
IMT	140	Industrial Mechanics	3
IMT	141	Industrial Mechanics Lab	1
ITE	250	Team Dynamics and Problem Solving	3
ISX	100	Industrial Safety	3
MAT	116	Technical Mathematics	3
PHX	150	Introduction to Physics	3
QMS	101	Introduction to Quality Systems	3
TEC	200	Technical Communications	3
		Digital Literacy	0-3
Total Credits			27-30

Presswork and Die Maintenance Technician Level I – 4703033209

(Offered at OWC, SMC)

IMT	115	Maintenance Machining I AND.....	2
IMT	116	Maintenance Machining I Lab OR	5
CMM	114	Fundamentals of Machine Tools OR	(6)
CMM	110	Fundamentals of Machine Tools-A AND	(3)
CMM	112	Fundamentals of Machine Tools-B	(3)
IMT	100	Welding for Maintenance AND	3
IMT	101	Welding for Maintenance Lab	2
IMT	260	Presswork and Die Maintenance	7
Total Credits			19

Presswork and Die Maintenance Technician Level II – 4703033219

(Offered at OWC, SMC)

IMT	115	Maintenance Machining I AND.....	2
IMT	116	Maintenance Machining I Lab OR	5
CMM	114	Fundamentals of Machine Tools OR	(6)
CMM	110	Fundamentals of Machine Tools-A AND	(3)
CMM	112	Fundamentals of Machine Tools-B	(3)
IMT	100	Welding for Maintenance AND	3
IMT	101	Welding for Maintenance Lab	2
IMT	260	Presswork and Die Maintenance	7
FPX	100	Fluid Power.....	3
FPX	101	Fluid Power Lab.....	2
IMT	110	Industrial Maintenance Electrical Principles	3
IMT	111	Industrial Maintenance Electrical Principles Lab.....	2
IMT	220	Industrial Maintenance Electrical Motor Controls I.....	3
IMT	221	Industrial Maintenance Electrical Motor Controls I Lab.....	2
Total Credits			34

Industrial Maintenance Robotics Technician – 4703033239

(Offered at BSC, BLC, ELC, HPC, JFC, MYC, SMC, WKC)

IMT	110	Industrial Maintenance Electrical Principles AND.....	3
IMT	111	Industrial Maintenance Electrical Principles Lab OR	2
ELT	110	Circuits I OR	(5)
EET	119	Basic Electricity	(5)
FPX	100	Fluid Power AND.....	3
FPX	101	Fluid Power Lab OR	2
ELT	265	Applied Fluid Power	(3)
IMT	220	Industrial Maintenance Electrical Motor Controls I AND.....	3
IMT	221	Industrial Maintenance Electrical Motor Control I Lab OR ..	2
EET	270	Electrical Motor Controls I AND.....	(2)
EET	271	Electrical Motor Controls I Lab OR	(2)
ELT	244	Electrical Machinery and Controls OR.....	(4)
IMT	120	Industrial Maintenance Rotating Machinery AND.....	(3)
IMT	121	Industrial Maintenance Rotating Machinery Lab	(2)
IMT	280	Advanced Programmable Logic Controllers AND.....	3
IMT	281	Advanced Programmable Logic Controllers Lab OR	2
EET	276	Programmable Logic Controllers AND.....	(2)
EET	277	Programmable Logic Controllers Lab	(2)
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
IMT	200	Industrial Robotic and Robotic Maintenance	4
Total Credits			25-29

Marine Technology

The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics,

which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

Associate in Applied Science

Marine Technology – 4903997019

(Offered at WKC)

ENG	101	Writing I	3
MAT	116	Technical Mathematics or Higher Level Quantitative Reasoning Course	3
GEN	140	Development of Leadership	3
		Natural Sciences	3
		Heritage/Humanities	3
Subtotal			15

Technical Core (required for all tracks):

		Digital Literacy	0-3
BAS	160	Introduction to Business	3
MRN	100	Introduction to Marine Technology.....	3
MRN	101	Anatomy of a Towboat	3
MRN	102	Basic Marine Safety.....	3
MRN	103	Applied Marine Weather.....	3
MRN	104	Marine Crew Wellness	3
MRN	203	Environmental Protection Rules	3
HSM	100	Introduction to Homeland Security	3
HSM	110	Introduction to Emergency Management	3
Subtotal			27-30

Wheelhouse Management Track – 490399701

(Offered at WKC)

BAS	120	Personal Finance	3
BAS	283	Principles of Management	3
BAS	287	Supervisory Management	3
MRN	200	Shipboard Deck Operations	3
MRN	201	Rules of the Road.....	3
MRN	202	Piloting and Navigation	3
Track Subtotal			18
Track Total			60-63

Marine Engineering Track – 490399702

(Offered at WKC)

MRN	204	Marine Electrical Systems	5
MRN	206	Marine Diesel	5
MRN	212	Marine Fluid Systems	5
MRN	214	Marine Refrigeration Systems	4
Track Subtotal			19
Track Total			61-64

Marine Logistics Operations Track – 490399703

(Offered at WKC)

BAS	120	Personal Finance	3
BAS	283	Principles of Management	3
BAS	289	Operations Management	3
MRN	208	Inland River Systems.....	3
LOM	100	Introduction to Logistics Management.....	3
LOM	101	Transportation	3
Track Subtotal			18
Track Total			60-63

Marine Culinary Management Track – 490399705

(Offered at WKC)

BAS	120	Personal Finance	3
BAS	283	Principles of Management	3
CUL	100	Introduction to Culinary Arts	2
CUL	200	Sanitation and Safety	2
CUL	230	Basic Nutrition	3
CUL	280	Cost and Control	3
MRN	208	Inland River Systems	3
		Track Subtotal	19
		Track Total	61-64

Certificates

Marine Technology Business – 4903993019

(Offered at WKC)

		Digital Literacy	0-3
BAS	120	Personal Finance	3
BAS	160	Introduction to Business	3
BAS	283	Principles of Management	3
BAS	289	Operations Management	3
LOM	100	Introduction to Logistics Management.....	3
LOM	101	Transportation	3
		Total	18-21

Marine Industry - 4903993029

(Offered at WKC)

		Digital Literacy	0-3
MRN	100	Introduction to Marine Technology.....	3
MRN	101	Anatomy of a Towboat	3
MRN	102	Basic Marine Safety.....	3
MRN	103	Applied Marine Weather.....	3
MRN	104	Marine Crew Wellness.....	3
MRN	203	Environmental Protection Rules.....	3
		Total	18-21

Marine Culinary – 4903993039

(Offered at WKC)

		Digital Literacy	0-3
CUL	100	Introduction to Culinary Arts	2
CUL	200	Sanitation and Safety	2
CUL	230	Basic Nutrition	3
CUL	280	Cost and Control	3
MRN	100	Introduction to Marine Technology.....	3
MRN	208	Inland River Systems	3
		Total	16-19

Marine Engineering – 4903993049

(Offered at WKC)

MRN	203	Environmental Protection Rules.....	3
MRN	204	Marine Electrical Systems.....	5
MRN	206	Marine Diesel	5
MRN	212	Marine Fluid Systems	5
MRN	214	Marine Refrigeration Systems.....	4
		Total	22

Massage Therapy Technology

The Massage Therapy Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace with relation to Massage Therapy. The program will educate students in the principles of integrative massage modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor's offices, private practice offices, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train Massage Therapist in techniques ranging from entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury and surgery. Using medical models, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist's education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a private practice.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.

Associate in Applied Science

Massage Therapy Technology - 5109997019

(Offered at GTW)

ENG	101	Writing I	3
ENG	102	Writing II	3
COM	252	Introduction to Interpersonal Communication	3
		Quantitative Reasoning	3
BIO	135	Basic Anatomy and Physiology OR	4
BIO	137	Human Anatomy and Physiology I AND	(4)
BIO	139	Human Anatomy and Physiology II	(4)
PSY	110	General Psychology	3
		Social/Behavioral Sciences.....	3
		Heritage/Humanities	6
		Subtotal	28-32

		Digital Literacy	0-3
MIT	103	Medical Office Terminology OR.....	3
CLA	131	Medical Terminology from Greek and Latin OR.....	(3)
AHS	115	Medical Terminology.....	(3)
SFA	100	Safety and First Aid.....	1
BAS	200	Small Business Management OR.....	3
BAS	288	Personal and Organizational Leadership.....	(3)
MSG	117	Musculoskeletal Anatomy and Physiology I	4
MSG	119	Musculoskeletal Anatomy and Physiology II.....	4
MSG	132	Massage Technique I.....	3
MSG	134	Massage Technique II	3
MSG	232	Advanced Clinical Massage I.....	3
MSG	234	Advanced Clinical Massage II.....	3
MSG	286	Massage Therapy Student Clinic.....	2
MSG	220	Massage Therapy Practice	3
		Subtotal	32-35

Total Credits (AAS)

60-67

Certificate

Massage Therapy - 5109993019

(Offered at GTW)

MIT 103	Medical Office Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin OR	(3)
AHS 115	Medical Terminology	(3)
MSG 117	Musculoskeletal Anatomy and Physiology I	4
MSG 119	Musculoskeletal Anatomy and Physiology II	4
MSG 132	Massage Technique I	3
MSG 134	Massage Technique II	3
MSG 232	Advanced Clinical Massage I	3
MSG 234	Advanced Clinical Massage II	3
MSG 286	Massage Therapy Student Clinic	2
MSG 220	Massage Therapy Pathology	3
	Total Credits	29

Masonry

The Masonry program prepares students for employment in the construction of houses, commercial structures and other projects involving brick, stone and other masonry materials. This program includes blueprint reading, introductory, intermediate and advanced masonry projects. Cost estimating, preparing materials lists, and practical experiences are included.

Progression in the Masonry program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average.

Diploma

Construction Mason - 4601014019

(Offered at BLC, BSC, JFC)

General Education: 6-9 credit hour requirement for diplomas in areas 1-3

Area 1 =	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
	Subtotal	6

Technical Courses:

	Computer/Digital Literacy course OR demonstrated competency	0-3
BRX 220	Blueprint Reading for Construction	3
ISX 100	Industrial Safety OR	3
ISX 101	Introduction to Industrial Safety	(3)
MSY 105	Introductory Masonry	3
MSY 115	Intermediate Masonry	3
MSY 199	Cooperative Education OR	3
MSY 198	Practicum	(3)
MSY 205	Advanced Masonry	3
MSY 215	Masonry Lab	3
MSY 225	Brick Construction	3
MSY 235	Special Techniques in Brick Construction	3
MSY 245	Anchors and Reinforcement	3
MSY 275	Fireplace Construction	3
MSY 299	Cooperative Education OR	3
MSY 298	Practicum	(3)
	Technical Electives*	6
	Subtotal	42-45
	Total Credits	48-51

Technical Electives

MSY 251	Concrete Finishing	3
MSY 253	Masonry Floors and Steps	3
MSY 255	Glass Blocks and Tile	3
MSY 257	Stone	3

Electives (Optional):

MSY 291	Special Problems III	(3)
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Certificates

Bricklayer Trainee - 4601013019

(Offered at BLC, BSC, JFC)

ISX 100	Industrial Safety OR	3
ISX 101	Introduction to Industrial Safety	(3)
MSY 105	Introductory Masonry	3
MSY 115	Intermediate Masonry	3
MSY 199	Cooperative Education OR	3
MSY 198	Practicum	(3)
MSY 205	Advanced Masonry	3
MSY 215	Masonry Lab	3
MSY 225	Brick Construction	3
MSY 235	Special Techniques in Brick Construction	3
MSY 245	Anchors and Reinforcement	3
	Total Credits	27

Bricklayer Helper - 4601013029

(Offered at BLC, BSC, JFC)

ISX 100	Industrial Safety OR	3
ISX 101	Introduction to Industrial Safety	(3)
MSY 105	Introductory Masonry	3
MSY 215	Masonry Lab	3
MSY 291	Special Problems III	3
	Total Credits	12

Construction Bricklayer - 4601013039

(Offered at BLC, BSC, JFC)

BRX 220	Blueprint Reading for Construction	3
ISX 100	Industrial Safety OR	3
ISX 101	Introduction to Industrial Safety	(3)
MSY 105	Introductory Masonry	3
MSY 115	Intermediate Masonry	3
MSY 199	Cooperative Education OR	3
MSY 198	Practicum	(3)
MSY 205	Advanced Masonry	3
MSY 215	Masonry Lab	3
MSY 225	Brick Construction	3
MSY 235	Special Techniques in Brick Construction	3
MSY 245	Anchors and Reinforcement	3
MSY 275	Fireplace Construction	3
MSY 299	Cooperative Education OR	3
MSY 298	Practicum	(3)
	Total Credits	36

Electives (Optional):

MSY 291	Special Problems III	(1-3)
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Stone Mason - 4601013049

(Offered at BLC, BSC, JFC)

BRX 220	Blueprint Reading for Construction	3
MSY 105	Introductory Masonry	3
MSY 115	Intermediate Masonry	3
MSY 205	Advanced Masonry	3
MSY 215	Masonry Lab	3
MSY 245	Anchors and Reinforcement	3
MSY 253	Masonry Floors and Steps	3
MSY 257	Stone	3
MSY 275	Fireplace Construction	3
	Total Credits	27

Mechatronic Systems

A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

Certificate

Mechatronic Systems Operating Technician - 1504033119

(Offered at JFC, SKY, WKC)

MES	110	Mechatronic Systems Electrical Components	4
MES	120	Mechatronic Systems Mechanical Components	4
MES	130	Mechatronic Systems Hydraulic / Pneumatic Components...	4
MES	150	Mechatronic Systems Programmable Controllers	4
Total Credits			16

Medical Administrative Services

Certificate

Medical Coding and Reimbursement Specialist - 5107133029

(Offered at JFC, SKY)

The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

AHS	109	Introduction to Body Structure and Functions OR	4
BIO	130	Aspects of Human Biology OR.....	(3)
BIO	135	Basic Anatomy and Physiology with Laboratory OR.....	(4)
BIO	137	Human Anatomy and Physiology I AND	(4)
BIO	139	Human Anatomy and Physiology II	(4)
AHS	115	Medical Terminology OR	3
CLA	131	Medical Terminology from Greek and Latin OR	(3)
MIT	103	Medical Office Terminology	(3)
		Computer/Digital Literacy.....	3
MBS	100	Introduction to the Health Care Field OR	2
HIT	100	Introduction to Healthcare Delivery Systems.....	(2)
MBS	110	Medical Insurance and Claims Processing	6
MBS	120	Coding for Reimbursement OR	8
MIT	204	Medical Coding AND	(3)
MIT	205	Advanced Medical Coding	(3)
MBS	199	Internship	0-8
Total Credits			23-38

Medical Assisting

A medical assistant is an integral member of the health care delivery team, qualified by education and experience to work in the administrative office, the examining room and the physician's laboratory. Individuals in this unique position will be involved in many of the following skills:

General: project a professional manner and image, adhere to legal and ethical principles, use medical terminology effectively, and use effective and correct verbal and written communication.

Administrative: schedule, coordinate and monitor appointments, perform telephone and written communications, arrange hospital admissions, manage medical records, process insurance claim forms, manage office financial records, and maintain inventory.

Clinical: prepare patient for examination procedures and treatment, record medical histories, take vital signs, chart patient information, administer medications and injections, provide patient instruction and education, perform venipunctures, collect and prepare other specimens, perform electrocardiograms (ECG), sterilize instruments, and perform basic laboratory tests.

With additional education, the medical assisting graduate may perform limited radiography.

The Medical Assistant is a vital liaison between the doctor and patient and plays an important role in diagnosis and treatment. The many different roles assumed in this profession assure a fast moving and challenging career.

Progression in the Medical Assisting program is contingent upon achievement of a grade of "C" or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Clinical orientation and externship are "non-paid work assignments." CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician's offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33756,
727/210-2350
www.caahep.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

Associate in Applied Science

Medical Assisting - 5108017029

(Offered at BLC, GTW, HEC, HPC, JFC, OWC)

Required General Education:

MAT	105	Mathematics for Business OR	3
MAT	110	Applied Mathematics OR	(3)
		Higher Level Quantitative Reasoning Course	(3)
BIO	135	Basic Anatomy and Physiology with Laboratory OR.....	4
BIO	137	Human Anatomy & Physiology I AND	(4)
BIO	139	Human Anatomy & Physiology II	(4)
PSY	110	General Psychology	3
ENG	101	Writing I	3
		Heritage/Humanities	3
Subtotal			16-20

Additional Suggested General Education Courses (Not Required)

ENG	102	Writing II	..... (3)
COM	181	Basic Public Speaking OR	..... (3)
COM	252	Introduction to Interpersonal Communications	..... (3)

Support Classes

AHS	115	Medical Terminology OR	..... 3
CLA	131	Medical Terminology from Greek and Latin OR	..... (3)
MIT	103	Medical Office Terminology	..... (3)
CPR	100	CPR for Health Care Professionals OR	..... 1
KHP	190	First Aid and Emergency Care	..... (2)
		Digital Literacy	..... 3
		Subtotal	7-8

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses

MAI	105	Introduction to Medical Assisting	..... 3
MAI	120	Medical Assisting Laboratory Techniques I	..... 3
MAI	140	Medical Assisting Clinical Procedures I	..... 4
MAI	150	Medical Assisting Administrative Procedures I OR	..... 3
MIT	217	Medical Office Procedures	..... (3)
MAI	170	Dosage Calculations	..... 2
MAI	200	Pathophysiology for the Medical Assistant	..... 3
MAI	220	Medical Assisting Laboratory Techniques II	..... 3
MAI	230	Medical Insurance OR	..... 3
MIT	104	Introduction to Medical Insurance	..... (3)
MAI	240	Medical Assisting Clinical Procedures II	..... 4
MAI	250	Medical Assisting Administrative Procedures II OR	..... 3
MIT	227	Medical Office Software	..... (3)
MAI	270	Pharmacology for the Medical Assistant	..... 3
MAI	289	Medical Assisting Assessment Preparation	..... 1-2
MAI	281	Medical Assisting Practicum	..... 1
MAI	284	Medical Assisting Externship	..... 2-3
		Subtotal	38-40

Total Credits 61-68

Elective List:

OST	100	Keyboarding	..... (1)
MAI	260	Medical Transcription	..... (3)
MAI	299	Selected Topics: Medical Assisting: (Topic)	..... (1-4)

Diploma

Medical Assisting - 5108014020

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

General Education:

BIO	135	Basic Anatomy and Physiology with Laboratory OR	..... 4
BIO	137	Human Anatomy & Physiology I AND	..... (4)
BIO	139	Human Anatomy & Physiology II	..... (4)
ENG	101	Writing I OR	..... 3
TEC	200	Technical Communications	..... (3)
		Subtotal	7-11

Support Classes

AHS	115	Medical Terminology OR	..... 3
AHS	120	Medical Terminology OR	..... (1)
CLA	131	Medical Terminology from Greek and Latin OR	..... (3)
MIT	103	Medical Office Terminology	..... (3)
CPR	100	CPR for Health Care Professionals OR	..... 1
KHP	190	First Aid and Emergency Care	..... (2)
		Digital Literacy	..... 3
		Subtotal	5-8

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses

MAI	105	Introduction to Medical Assisting	..... 3
MAI	120	Medical Assisting Laboratory Techniques I	..... 3
MAI	140	Medical Assisting Clinical Procedures I	..... 4
MAI	150	Medical Assisting Administrative Procedures I OR	..... 3
MIT	217	Medical Office Procedures	..... (3)
MAI	170	Dosage Calculations	..... 2
MAI	200	Pathophysiology for the Medical Assistant	..... 3
MAI	220	Medical Assisting Laboratory Techniques II	..... 3
MAI	230	Medical Insurance OR	..... 3
MIT	104	Introduction to Medical Insurance	..... (3)
MAI	240	Medical Assisting Clinical Procedures II	..... 4
MAI	250	Medical Assisting Administrative Procedures II OR	..... 3
MIT	227	Medical Office Software	..... (3)
MAI	270	Pharmacology for the Medical Assistant	..... 3
MAI	289	Medical Assisting Assessment Preparation	..... 1-2
MAI	281	Medical Assisting Practicum	..... 1
MAI	284	Medical Assisting Externship	..... 2-3
		Subtotal	38-40

Total Credits 50-59

Elective Courses:

OST	100	Keyboarding	..... (1)
MAI	260	Medical Transcription	..... (3)
MAI	299	Selected Topics: Medical Assisting: (Topic)	..... (1-4)

Certificates

Medical Office Insurance Billing and Coding - 5108013049

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

AHS	115	Medical Terminology OR	..... 3
AHS	120	Medical Terminology OR	..... (1)
CLA	131	Medical Terminology from Greek and Latin OR	..... (3)
MIT	103	Medical Office Terminology	..... (3)
BIO	135	Basic Anatomy and Physiology with Laboratory OR	..... 4
BIO	137	Human Anatomy & Physiology I AND	..... (4)
BIO	139	Human Anatomy & Physiology II	..... (4)
MAI	150	Medical Assisting Administrative Procedures I OR	..... 3
MIT	217	Medical Office Procedures	..... (3)
MAI	230	Medical Insurance OR	..... 3
MIT	104	Introduction to Medical Insurance	..... (3)
MAI	250	Medical Assisting Administrative Procedures II OR	..... 3
MIT	227	Medical Office Software	..... (3)
MAI	281	Medical Assisting Practicum	..... 1
		Digital Literacy	..... 3
		Total Credits	18-24

Medical Office Administrative Assistant - 5108013069

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

AHS	115	Medical Terminology OR	..... 3
AHS	120	Medical Terminology OR	..... (1)
CLA	131	Medical Terminology from Greek and Latin OR	..... (3)
MIT	103	Medical Office Terminology	..... (3)
BIO	135	Basic Anatomy and Physiology with Laboratory OR	..... 4
BIO	137	Human Anatomy & Physiology I AND	..... (4)
BIO	139	Human Anatomy & Physiology II	..... (4)
MAI	105	Introduction to Medical Assisting	..... 3
MAI	150	Medical Assisting Administrative Procedures I OR	..... 3
MIT	217	Medical Office Procedures	..... (3)
MAI	250	Medical Assisting Administrative Procedures II OR	..... 3
MIT	227	Medical Office Software	..... (3)
MAI	281	Medical Assisting Practicum	..... 1
		Digital Literacy	..... 3
		Total Credits	18-24

Electrocardiograph Technician - 5108013149

(Offered at JFC, MYC)

AHS	115	Medical Terminology OR	3
AHS	120	Medical Terminology OR	(1)
CLA	131	Medical Terminology from Greek and Latin OR	(3)
MIT	103	Medical Office Terminology	(3)
BIO	135	Basic Anatomy and Physiology with Laboratory OR.....	4
BIO	137	Human Anatomy & Physiology I AND	(4)
BIO	139	Human Anatomy & Physiology II	(4)
CPR	100	CPR for Healthcare Professionals OR	1
KHP	190	First Aid and Emergency Care.....	(2)
MAI	140	Medical Assisting Clinical Procedures I OR.....	4
MAI	240	Medical Assisting Clinical Procedures II	(4)
MAI	281	Medical Assisting Practicum	1
Total Credits			11-18

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Medical Office Limited Radiography - 5108013139

(Offered at JFC)

MOR	100	Medical Office Limited Radiography.....	6
MOR	115	Medical Office Limited Radiography Lab	3
MOR	117	Advanced Medical Office Limited Radiography	6
MOR	119	Advanced Medical Office Limited Radiography Clinical.....	3
Total Credits			18

Phlebotomist - 5108013109

(Offered at ASC, BLC, GTW, HEC, MYC, SEC)

PHB	100	Phlebotomy.....	6
PHB	155	Phlebotomy Clinical.....	2-3
Total Credits			8-9
OR			
MAI	120	Medical Assisting Laboratory Techniques I	3
PHB	155	Phlebotomy Clinical.....	2-3
Total Credits			5-6
OR			
MAI	120	Medical Assisting Laboratory Techniques I	3
PHB	152	Phlebotomy: Clinical Experience	1
Total Credits			4

NOTE: See <http://www.phlebotomy.com/CertAgencies.html> for a directory of phlebotomy certification agencies and examination requirements.

*A competency level of successful completion of MAT 065, RDG 030 and ENC 091 must be attained for any certificate.

Medical Laboratory Technician

The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered clinical scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of "C" in each of the medical laboratory technician courses.

Upon completion of the program, the graduate is eligible for the national certification examination as a medical laboratory technician.

The following Associate Degree Medical Laboratory Technician Programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address and telephone number of NAACLS are: NAACLS, 5600 North River Road, Suite 720, Rosemont, Illinois 60018. Telephone: 773.714.8880 Fax: 773.714.8886 (Website): <http://www.naacls.org> (E-mail): info@naacls.org

Henderson Community College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College. (Accreditation Pending).

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials "MLT (ASCP)" indicating proficiency in laboratory medicine.

Associate in Applied Science

Medical Laboratory Technician - 5110047049

(Offered at HEC, JFC, MDC, MYC, SEC, SMC, WKC)

General Education Courses:

ENG	101	Writing I	3
MAT	110	Applied Mathematics OR	3
		Higher Quantitative Reasoning course.....	(3)
CHE	130	Introductory General and Biological Chemistry OR	4
		Higher Chemistry course	(3)
PSY	110	General Psychology	3
		Heritage/Humanities	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communication.....	(3)
Subtotal			18-19

Core Courses:

		Digital Literacy	0-3
BIO	135	Basic Anatomy & Physiology with Laboratory*.....	4
MLT	112	Urinalysis	2
MLT	115	Serology	2
MLT	215	Hematology I AND.....	4
MLT	216	Hematology II OR.....	3
MLT	217	Fundamentals of Hematology AND	(3)
MLT	218	Clinical Hematology	(4)
MLT	225	Immunohematology I AND	2
MLT	226	Immunohematology II OR	2
MLT	227	Immunohematology.....	(4)
MLT	278	Practicum	
		Pathway 1	4
		Pathway 2	5
Subtotal			23-27

*BIO 137 & BIO 139 may be substituted for BIO 135

Pathway I-511004703

(Offered at SMC, SEC, HEC)

BIO	225	Medical Microbiology.....	4
MLT	101	Introduction to the Clinical Laboratory AND	3
PHB	151	Phlebotomy for the Health Care Worker AND	1
PHB	152	Phlebotomy: Clinical Experience	1
MLT	205	Clinical Microbiology I AND	3
MLT	206	Clinical Microbiology II	2
MLT	233	Clinical Chemistry I AND.....	3
MLT	234	Clinical Chemistry II	2
MLT	279	Practicum II.....	4
Subtotal			23

Total Credit Hours – Pathway I

64-68

Pathway II-511004704

(Offered at JFC, MDC, MYC, WKC)

MLT 207	Introduction to Clinical Diagnostic Microbiology	2
PHB 170	Applied Phlebotomy AND	3
PHB 152	Phlebotomy Clinical Experience	1
MLT 208	Clinical Diagnostic Microbiology I AND	3
MLT 209	Clinical Diagnostic Microbiology II	2
MLT 247	Introduction to Clinical Chemistry AND	3
MLT 248	Advanced Clinical Chemistry	3
MLT 279	Practicum II	5
	Subtotal	22

Total Credit Hours – Pathway II 64–68

Diploma

Certified Medical Laboratory Assistant - 5110044029

(Offered at MDC)

General Education Courses:

Course from Area I:

ENG 101	Writing I	3
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Course from Area II:

MAT 110	Applied Mathematics OR	3
	Higher Quantitative Reasoning course	(3)
	Subtotal	6

Support Courses:

	Digital Literacy	0-3
BIO 135	Basic Anatomy & Physiology with Laboratory*	4
BIO 225	Medical Microbiology OR	4
MLT 207	Introduction to Clinical Diagnostic Microbiology	(2)
	Subtotal	6-11

*BIO 137 & BIO 139 may be substituted for BIO 135.

Technical Courses:

MLT 101	Introduction to the Clinical Laboratory AND	3
PHB 151	Phlebotomy for the Health Care Worker AND	1
PHB 152	Phlebotomy: Clinical Experience AND	1
MLT 225	Immuno-hematology I OR	2
PHB 170	Applied Phlebotomy AND	(3)
PHB 152	Phlebotomy: Clinical Experience	(1)
MLT 112	Urinalysis	2
MLT 115	Serology	2
MLT 217	Fundamentals of Hematology OR	3
MLT 215	Hematology I	(4)
MLT 247	Introduction to Clinical Chemistry OR	3
MLT 233	Clinical Chemistry I	(3)
MLT 275	Clinical Experience	1
MLT 278	Practicum I	4
OST 217	Medical Office Procedures OR	3
MAI 150	Medical Assisting Administrative Procedures I	(3)
	Subtotal	22-26
	Total	34-43

Certificates

Physician's Office Laboratory - 5110043029

(Offered at HEC, HZC, JFC, MDC, SEC, WKC)

PHB 151	Phlebotomy AND	1
PHB 152	Phlebotomy Clinical Experience AND	1
MLT 101	Introduction to the Clinical Laboratory OR	3
PHB 170	Applied Phlebotomy AND	(3)
PHB 152	Phlebotomy Clinical Experience	(1)
MLT 112	Urinalysis	2
MLT 115	Serology	2
	Total	8-9

Phlebotomist - 5110043019

(Offered at HZC, JFC, MDC, MYC)

PHB 100	Phlebotomy	6
PHB 155	Phlebotomy Clinical	2-3
	Total	8-9

Phlebotomy for the Health Care Worker - 5110043039

(Offered at HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

PHB 151	Phlebotomy AND	1
PHB 152	Phlebotomy: Clinical Experience AND	1
MLT 101	Introduction to the Clinical Laboratory OR	3
PHB 170	Applied Phlebotomy AND	(3)
PHB 152	Phlebotomy: Clinical Experience	(1)
	Total	4-5

Advanced Phlebotomy Technician - 5110043049

(Offered at HZC, SEC,)

PHB 151	Phlebotomy AND	1
PHB 152	Phlebotomy: Clinical Experience AND	1
PHB 155	Phlebotomy Clinical AND	2
MLT 101	Introduction to the Clinical Laboratory OR	3
PHB 151	Phlebotomy AND	(1)
PHB 153	Advanced Topics in Phlebotomy AND	(4)
PHB 155	Phlebotomy Clinical OR	(3)
PHB 170	Applied Phlebotomy AND	(3)
PHB 152	Phlebotomy: Clinical Experience AND	(1)
PHB 155	Phlebotomy Clinical	(2)
	Total	6-8

Mining Technology

The Mining Technology program will focus on the knowledge needed to succeed in the coal mining industry. Emphasis will be given to the statutory rights and safety procedures in all of the offerings including: the self-rescuer device, transportation controls, communication controls, mining conditions, mining methods, mining cycle, escapeways, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

Associate in Applied Science

Mining Technology - 1509017019

(Offered at BSC, MDC)

General Education:

ENG 101	Writing I	3
	Quantitative Reasoning course*	3
	Social/Behavioral Sciences course	3
GLY 101	Physical Geology AND	3
GLY 111	Laboratory for Physical Geology OR	1
	Natural Sciences	(4)
	Heritage/Humanities	3
	Subtotal	16

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.

Technical Core:

	Digital Literacy	3
MNG 102	Introduction to Mine Engineering and Mining Technology ...	3
MNG 160	Elements of Underground Mining	3
MNG 170	Elements of Surface Mining	2
MNG 150	Mining Laws	3

BAS	160	Introduction to Business	3
EFM	100	Personal Financial Management OR	3
BAS	120	Personal Finance	(3)
MNG	274	Mine Safety	3
MNG	180	Environmental Issues in Mining	3
Subtotal			26

Operators Track – 150901702

(Offered at BSC, MDC)

IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
MNG	161	Elements of Underground Mining Lab	1-3
MNG	171	Elements of Surface Mining Lab	1-3
Technical Electives*			11-13
Subtotal			18-24

Total Credits 60-66

Electricians Track - 150901703

(Offered at BSC, MDC)

MNG	123	Mining Electricity I AND	4
MNG	125	Mining Electricity I Lab OR	1
IMT	110	Industrial Maintenance Electrical Principles AND	(3)
IMT	111	Industrial Maintenance Electrical Principles Lab	(2)
ELT	244	Electrical Machinery and Controls OR	4
Equivalent course			

IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
ELT	250	Programmable Logic Controllers	4
Technical Electives*			2
Subtotal			20

Total Credits 62

Supervisors Track - 150901704

(Offered at BSC, MDC)

ACT	101	Fundamentals of Accounting I	3
MNG	286	Roof Control and Ventilation	3
BAS	283	Principles of Management	3
BAS	288	Personal and Organizational Leadership	3
Technical Electives*			8
Subtotal			20

Total Credits 62

Mechanics Track - 150901705

(Offered at BSC, MDC)

Blueprint Reading course			2-3
ELT	265	Applied Fluid Power OR	3
FPX	100	Fluid Power AND	(3)
FPX	101	Fluid Power Lab	(2)
ELT	122	Mechanical Power Transmission Systems	3
IMT	100	Welding for Maintenance	3
IMT	101	Welding for Maintenance Lab	2
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
Technical Electives*			2
Subtotal			20-23

Total Credits 62-65

Engineering Operations Track - 150901701

(Offered at BSC, MDC)

MA	112	Trigonometry OR	2
MAT	155	Trigonometry	(3)
Blueprint Reading course			2-3
MNG	286	Roof Control and Ventilation	3
Technical Electives*			12
Subtotal			19-21

Total Credits 61-63

*Technical Electives:

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

Diploma

Underground Mining Repair Technology -1509014019

General Education:

Area 1 =	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning	3
Subtotal		6

Technical Courses:

Blueprint Reading Course			2-3
Digital Literacy course or demonstrated competency			0-3
EFM	100	Personal Financial Management OR	3
BAS	120	Personal Finance	(3)
IMT	100	Welding for Maintenance	3
IMT	101	Welding for Maintenance Lab	2
ELT	250	Programmable Logic Controllers	4
ELT	265	Applied Fluid Power OR	3
FPX	100	Fluid Power AND	(3)
FPX	101	Fluid Power Lab	(2)
IMT	150	Maintaining Industrial Equipment I	3
IMT	151	Maintaining Industrial Equipment I Lab	2
MNG	123	Mining Electricity AND	4
MNG	125	Mining Electricity I Lab OR	1
IMT	110	Industrial Maintenance Electrical Principles AND	(3)
IMT	111	Industrial Maintenance Electrical Principles Lab	(2)
MNG	190	Mine Emergency Technician OR	3
KHP	190	First Aid & Emergency Care	(2)
MNG	185	Permissibility	3
MNG	274	Mine Safety	3
Technical Electives*			9-12
Subtotal			44-54

Total Credits 50-60

*Technical Electives:

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

Certificates

Underground Operator 1509013129

(Offered at BSC, MDC)

MNG	160	Elements of Underground Mining	3
MNG	161	Elements of Underground Mining Lab	1-3
EFM	100	Personal Financial Management OR	3
BAS	120	Personal Finance OR	(3)
WPP	200	Workplace Principles	(3)
Total Credits			7-9

Underground Mechanic/Electrician - 1509013069

(Offered at MDC)

	Digital Literacy	0-3	PMX	100
	Blueprint Reading course	2-3	DIT	103
MNG	123 Mining Electricity I.....	4	ELT	122
MNG	125 Mining Electricity I Lab	1		
IMT	100 Welding for Maintenance	3		
IMT	101 Welding for Maintenance Lab	2		
ELT	244 Electrical Machinery and Controls OR	4		
IMT	110 Industrial Maintenance Electrical Principles AND	(3)		
IMT	111 Industrial Maintenance Electrical Principles Lab	(2)	PMX	100
ELT	250 Programmable Logic Controllers.....	4	DIT	103
ELT	265 Applied Fluid Power OR	3	IMT	100
FPX	100 Fluid Power AND.....	(3)	IMT	101
FPX	101 Fluid Power Lab.....	(2)		
IMT	150 Maintaining Industrial Equipment I	3		
IMT	151 Maintaining Industrial Equipment I Lab	2		
	Total Credits	28-35		

Underground Supervisor - 1509013079

(Offered at BSC, MDC)

MNG	150 Mining Laws	3	MNG	123
MNG	274 Mine Safety	3	MNG	125
MNG	190 Mine Emergency Technician OR	3	ELT	265
KHP	190 First Aid & Emergency Care	(2)	FPX	100
BAS	160 Introduction to Business.....	3	FPX	101
MNG	286 Roof Control and Ventilation	3		
	Digital Literacy	0-3		
	Blueprint Reading course	2-3		
	Total Credits	16-21		

Surface Operator - 1509013139

(Offered at BSC, MDC)

MNG	170 Elements of Surface Mining.....	2	MNG	123
MNG	171 Elements of Surface Mining Lab	1-3	MNG	125
EFM	100 Personal Financial Management OR.....	3	MNG	150
BAS	120 Personal Finance OR.....	(3)	MNG	286
WPP	200 Workplace Principles	(3)	MNG	190
HEO	125 Special Problems I OR.....	3	KHP	190
	Technical Elective.....	(3)	IMT	100
	Total Credits	9-11	IMT	101

Surface Supervisor - 1509013099

(Offered at BSC, MDC)

	Digital Literacy	0-3		
	Blueprint Reading Course	2-3		
MNG	150 Mining Laws	3		
MNG	190 Mine Emergency Technician OR	3		
KHP	190 First Aid & Emergency Care	(2)		
MNG	274 Mine Safety	3		
BAS	160 Introduction to Business.....	3		
	Total Credits	13-18		

Surface Field Mechanic - 1509013109

(Offered at BSC, MDC)

ELT	122 Mechanical Power Transmission Systems	3		
ELT	265 Applied Fluid Power OR	3		
FPX	100 Fluid Power AND.....	(3)		
FPX	101 Fluid Power Lab.....	(2)		
IMT	100 Welding for Maintenance	3		
IMT	101 Welding for Maintenance Lab	2		
	Total Credits	11-13		

Surface Technician/Greaser - 1509013119

(Offered at BSC)

Precision Measurement.....	3
Preventive Maintenance Lab	2
Mechanical Power Transmission Systems	3
Total Credits	8

Mining Technician Assistant I - 1509013019

(Offered at BSC)

Precision Measurement.....	3
Preventive Maintenance Lab	2
Welding for Maintenance	3
Welding for Maintenance Lab	2
Total Credits	10

Mining Technician Assistant II - 1509013029

(Offered at BSC, MDC)

Mining Electricity I.....	4
Mining Electricity Lab	1
Applied Fluid Power OR	3
Fluid Power AND.....	(3)
Fluid Power Lab.....	(2)
Total Credits	8-10

Mining Technician I - 1509013039

(Offered at BSC, MDC)

Digital Literacy	0-3
Elements of Underground Mining.....	3
Mining Laws	3
Roof Control and Ventilation	3
Total Credits	9-12

Mining Technician II - 1509013049

(Offered at MDC)

Digital Literacy	0-3
Mining Electricity I.....	4
Mining Electricity Lab	1
Mining Laws	3
Roof Control and Ventilation	3
Mine Emergency Technician OR	3
First Aid & Emergency Care	(2)
Welding for Maintenance	3
Welding for Maintenance Lab	2
Total Credits	18-22

Multi-Skilled Systems Technician

Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals.

Certificate

Multi-Skilled Technician - 4703033229

(Offered at JFC)

MST	150	Multi-Skilled Systems Technician	9
Total Credits			9

Natural Gas Technology

Construction and Maintenance Technician

This program prepares students for performing job tasks in five functional areas of pipeline construction and maintenance; work related safety, installing and inspecting gas distribution piping, maintenance on gas pipelines, placing pipelines into service and installing and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Gas Service Technician

This program prepares students for job related tasks in six functional areas of natural gas service; work related safety, installing and maintaining customer services lines and meter and regulator sets, installing gas operated equipment, installing and inspecting gas distribution piping and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Leakage and Corrosion Control Technician

This program prepares students for performing job tasks in four functional areas of natural gas leakage and corrosion control; work related safety, investigating and controlling gas leaks, installing cathodic protection systems, and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are "operator qualified" on related covered tasks according to 49CFR, Part 192, Subpart N.

Measurement and Regulation Technician

This program prepares students for performing job tasks in five functional areas of natural gas measurement and regulation; work related safety, basic gas laws, maintaining gas metering systems, maintaining gas regulation systems, and maintaining recording instruments. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level.

Certificates

Leakage and Corrosion Control Technician - 1509033020

(Offered at SMC)

NGT	100	Technologies Basic to the Delivery of Natural Fuel Gases	3
NGT	110	Preventing/Controlling Worksite Incidents	3
NGT	130	Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192	1
NGT	140	Pipeline Construction Safety	3
NGT	150	Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities	3
NGT	205	Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems	2
NGT	210	Troubleshooting Cathodic Protection Rectifiers	3
Total Credits			18

Gas Service Technician - 1509033040

(Offered at SMC)

NGT	100	Technologies Basic to the Delivery of Natural Fuel Gases	3
NGT	110	Preventing/Controlling Worksite Incidents	3
NGT	125	Maintaining Compliance with the National Fuel Gas Code NFPA 54 and ANSI Z223.1	1
NGT	150	Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities	3
NGT	160	Installing & Maintaining Customer Service Lines and Meter and Regulator Sets	3
NGT	170	Installing Gas Operated Equipment	3
NGT	180	Installing and Inspecting Gas Distribution Piping	3
NGT	230	Inspecting & Maintaining Gas Metering Systems.....	3
Total Credits			22

Measurement and Regulation Technician - 1509033030

(Offered at SMC)

NGT	100	Technologies Basic to the Delivery of Natural Fuel Gases	3
NGT	110	Preventing/Controlling Worksite Incidents	3
NGT	130	Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192	1
NGT	140	Pipeline Construction Safety	3
NGT	150	Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities	3
NGT	205	Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems	2
NGT	220	Identifying Principles & Performing Operations Basic to Gas Measurement	3
NGT	230	Inspecting & Maintaining Gas Metering Systems.....	3
NGT	240	Operating & Maintaining Gas Pressure Regulating Systems...	3
Total Credits			24

Construction and Maintenance Technician - 1509033010

(Offered at SMC)

NGT	100	Technologies Basic to the Delivery of Natural Fuel Gases	3
NGT	110	Preventing/Controlling Worksite Incidents	3
NGT	130	Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192	1
NGT	140	Pipeline Construction Safety	3
NGT	180	Installing & Inspecting Gas Distribution Piping	3
NGT	190	Performing Maintenance on Gas Pipelines	3
NGT	200	Placing Gas Pipelines into Service	3
NGT	205	Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems	2
Total Credits			21

Nuclear Medicine and Molecular Imaging Technology

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) program prepares the individual to work in the field of Nuclear Medicine and Molecular Imaging. Nuclear Medicine and Molecular Imaging is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive materials. The skills of the nuclear medicine technologist complement those of the nuclear medicine physician and other professionals in the field. Nuclear medicine technologists have responsibilities in the following areas: (a) patient care and monitoring, (b) technical skills related to radiation safety, radiopharmacy, clinical instrumentation, diagnostic and therapeutic procedures (including hybrid imaging and emerging technologies), quality control, and computers, and (c) administrative functions related to supplies and equipment, documentation of operations related to disposition of radioactive materials, quality control data, and patient records.

The NMMIT program is a selective admission program. A student must earn a grade of C or better in the prerequisite and concurrent mathematics and science courses to be admitted to and to remain enrolled in the program. Also, a student must earn a grade of C or better in each of the NMMIT courses to be retained in the program. After graduation from the program, the individual is eligible to write either the Nuclear Medicine Technology Certification Board (NMTCB) or the American Registry of Radiologic Technologists (ARRT) nuclear medicine technology examination to earn credentials. Please see the guidelines for the selective admission requirements to the Nuclear Medicine and Molecular Imaging Technology program.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first NMI course.

Note: Hours Exception (71-73 for the A.A.S.) approved by the KCTCS Board of Regents in December 2010

Associate in Applied Science

Nuclear Medicine and Molecular Imaging Technology - 5109057039

(Offered at BLC)

General Education:

ENG	101	Writing I	3
ENG	102	Writing II	3
MAT	150	College Algebra OR	3
MA	109	College Algebra	(3)
CHE	140	Introductory General Chemistry	3
CHE	150	Introduction to Organic and Biological Chemistry	3
CHE	155	Introduction to Organic and Biological Chemistry Lab	1
BIO	137	Human Anatomy & Physiology I	4
BIO	139	Human Anatomy & Physiology II	4
PHY	171	Applied Physics OR	4
PHY	172	Physics for Health Sciences	(2)
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
		Oral Communications Course	3
		Subtotal	35-37

Technical Courses:

NMI	140	Clinical Procedures I	2
NMI	141	Physics and Instrumentation I	2
NMI	142	Radiation Biology/Protection	1
NMI	150	Clinic I	2
NMI	160	Clinical Procedures II	2

NMI	161	Physics and Instrumentation II	2
NMI	170	Clinic II	2
NMI	230	Radiopharmacy	2
NMI	220	Clinic III	2
NMI	240	Clinical Procedures III	4
NMI	260	Clinic IV	4
NMI	250	Clinical Procedures IV	4
NMI	270	Clinic V	4
IMG	230	Sectional Anatomy for Advanced Imaging	3
		Subtotal	36

Total Credits

71-73

Nursing

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies. *

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to March 1 for admission to a fall NSG 101 course (July 1 for admission to a spring NSG 101 course).

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

*Transportation to the community agencies is the responsibility of each student.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Education in Nursing 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000: Ashland Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Henderson Community College, Hopkinsville Community College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College.

Associate in Applied Science

Nursing - 5138017009

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)

General Education for 2017-2018 Academic Year:

BIO 137	Human Anatomy & Physiology I	4
BIO 139	Human Anatomy & Physiology II	4
BIO 225	Medical Microbiology	4
MAT 150	College Algebra	3
PSY 110	General Psychology	3
PSY 223	Developmental Psychology	3
	Written Communication Courses	6
	Oral Communications Course	3
	Heritage/ Humanities Course	3
	Subtotal	33

General Education for 2018-2019 Academic Year*:

BIO 137	Human Anatomy & Physiology I	4
BIO 139	Human Anatomy & Physiology II	4
BIO 225	Medical Microbiology	4
MAT 150	College Algebra	3
PSY 110	General Psychology	3
	Written Communication Courses	3
	Heritage/ Humanities Course	3
	Subtotal	24

*The Nursing Standard Pathway (513801705) will implement the 24 credit hour General Education requirement beginning in the 17/18 academic year.

Nursing Modular Pathway - 513801704

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, MYC, OWC, SEC, SMC, WKC)

Technical Courses:

NSG 101	***Nursing Practice I	9
NSG 210	***Medical/Surgical Nursing I OR	6
NSG 197	** LPN – ADN Bridge OR	(3)
NSG 199	** Accelerated LPN –ADN Bridge Course	(2)
NSG 211	Maternal Newborn Nursing	3
NSG 212	Behavioral Health Nursing	3
NSG 213	Pediatric Nursing	3
NSG 215	Pharmacology I	1
NSG 220	Medical/Surgical Nursing II	6
NSG 225	Pharmacology II	1
NSG 230	Medical/Surgical Nursing III	6
	Subtotal	38
	Total Credits	71

**Taken by Licensed Practical Nurses who meet specific program requirements

***Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Nursing Standard Pathway - 513801705

(Offered at JFC)

Technical Courses:

NSG 106	***Nursing One	9
NSG 206	***Nursing Two OR	9
NSG 196	**LPN-ADN Bridge	(5)
NSG 236	(Family Nursing) Nursing Three	9
NSG 246	Nursing Four	9
NSG 216	Nursing Pharmacology I AND	1

NSG 226	Nursing Pharmacology II OR	1
HST 121	Pharmacology	(2)
	Subtotal	38

Total CREDITS

62

**Taken by licensed practical nurses who meet specific program requirements. An additional three hour elective will be required to complete the AAS.

***Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

NOTE: CPR (BLS for Healthcare Providers) requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, a letter of good standing status from the Kentucky Nurse Aide Registry, criminal background checks and documentation of computer/digital literacy as defined by KCTCS are required prior to enrolling in the first nursing course.

Nursing Assistant – Advanced

Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.

Certificate

Advanced Nursing Assistant - 5139023019

(Offered at BSC, ELC, HPC, MYC, OWC, WKC)

Available Completely Online

NAA 125	Advanced Nursing Assistant OR	6
NAA 100	Nursing Assistant Skills I AND	(3)
NAA 115	Nursing Assistant Skills II OR	(3)
MNA 100	Medicaid Nurse Aide AND	(3)
NAA 115	Nursing Assistant Skills II	(3)
BIO 135	Basic Anatomy and Physiology with Laboratory OR	4
AHS 109	Introduction to Body Structure and Function OR	(4)
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II	(4)
COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communication OR	(3)
ENG 101	Writing I OR	(3)
TEC 200	Technical Communications	(3)
	Computer/Digital Literacy	3
	Total Credits	16-20

Nursing – Academic/Career Mobility Program

The Academic/Career Mobility Program provides a seamless educational option in nursing with two exit points allowing students to choose a career as an LPN or RN. The program is implemented in a shared framework which prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, person/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed, and built upon through the curriculum; however, distinct parameters have been established that support the PN and RN scopes of nursing practice. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Students who successfully complete the first year will receive a diploma qualifying them to

apply for licensure as practical nurses. Following successful completion of the second year, students will receive the Associate in Applied Science Degree in Nursing qualifying them to apply for licensure as registered nurses.

Acceptance into the program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Licensed practical nurses who graduated within one year of admission to the program or have practiced at least one full year within the past three years and hold a current unrestricted license for practical nursing will be admitted to the associate degree level.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Progression in the nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Academic/Career Mobility Program in Nursing - 5138017049

(Offered at SKY)

General Education Courses:

BIO	137	Human Anatomy & Physiology I	4
BIO	139	Human Anatomy & Physiology II	4
BIO	225	Medical Microbiology OR	4
BIO	227	Principles of Microbiology with Laboratory	(5)
MAT	150	College Algebra	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
		Written Communication Courses	6
		Heritage/Humanities	3
		Oral Communications Course	3
		General Education Total	33-34

Technical Courses:

NRS	101	Nursing Care I AND	9
NRS	102	Nursing Care II OR	10
NRS	200	**LPN to ADN Transition.....	(3)
NRS	203	Nursing Care III.....	9
NRS	204	Nursing Care IV	10
		Subtotal	38

Total CREDITS: 71-72

**Taken only by Licensed Practical Nurses who have been admitted to the program and have and have met the pre-requisites.

Note: Documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course .

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program.

Diploma

Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009

(Offered at SEC, SKY)

General Education Courses:

BIO	137	Human Anatomy & Physiology I	4
BIO	139	Human Anatomy & Physiology II	4
ENG	101	Writing I	3
MAT	150	College Algebra	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
		Oral Communications	3
		General Education Subtotal	23

Technical Courses

NRS	101	Nursing Care I	9
NRS	102	Nursing Care II.....	10
		Subtotal	19

Total CREDITS: 42

Note: Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course. CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program.

Suggested Electives:

NRS	100	Enhancing Nursing Student Success	(3)
AHS	115	Medical Terminology	(3)
NSG	126	Pharmacology in Nursing	(3)

Nursing - Integrated Nursing

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After three semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation of health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological

sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Acceptance into the Integrated Nursing Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Active status as a Kentucky State Registered Nurse Aide is required prior to enrolling in the first integrated nursing course. Licensed practical nurses may receive credit for the first semester of nursing based upon specific college offerings, work experience, and active Kentucky or compact state licensure status.

Progression within the Integrated Nursing Program is contingent upon achievement of a grade of "C" or better in all program course requirements and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

If more than three years have elapsed since initial enrollment in any nursing program, an applicant must repeat all nursing courses.

A nursing graduate with a misdemeanor or felony conviction may be denied permission to access the NCLEX by the Kentucky Board of Nursing.

The Madisonville Community College Associate Degree Nursing program is currently accredited by:

Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, www.acenursing.org, www.nlac.org, Telephone (404) 975-5000.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Nursing - 5138017069

(Offered at MDC)

General Education:

BIO	135	Basic Anatomy and Physiology with Laboratory*	4
PSY	110	General Psychology	3
ENG	101	Writing I	3
MAT	150	College Algebra	3
		Heritage/Humanities	3
		Subtotal	16

Technical or Support Courses:

NAA	100	Nursing Assistant Skills I or Equivalent	0-3
CIT	105	Introduction to Computers OR	3
OST	105	Introduction to Information Systems	(3)
NIP	103	Introduction of Pharmacology	2
NIP	116	Fundamentals of Nursing	10
AHS	100	Human Growth and Development**	2
NIP	129	Nursing Care Across the Lifespan	11
NIP	212	Advanced Medical Surgical Nursing	10
NIP	215	Leadership and Specialty Practice	7
		Subtotal	45-48
		Total Credits	61-64

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky State Nurse Aide Registry at time of admission.

*BIO 137 and BIO 139 may be substituted for BIO 135.

**PSY 223 may be substituted for AHS 100.

Diploma

Practical Nursing - 5139014049

(Offered at MDC)

General Education:

BIO	135	Basic Anatomy and Physiology with Laboratory*	4
PSY	110	General Psychology	3
ENG	101	Writing I	3
		Subtotal	10

Technical or Support Courses:

NAA	100	Nursing Assistant Skills I or equivalent	0-3
CIT	105	Introduction to Computers OR	3
OST	105	Introduction to Information Systems	(3)
NIP	103	Introduction of Pharmacology	2
NIP	116	Fundamentals of Nursing	10
AHS	100	Human Growth and Development**	2
NIP	129	Medical Surgical Alteration	11
NIP	140	Practical Nursing Role Transition	6
		Subtotal	34-37

Total Credits

44-47

Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky State Nurse Aide Registry at time of admission.

*BIO 137 and BIO 139 may be substituted for BIO 135.

**PSY 223 may be substituted for AHS 100.

Certificates

Medicaid Nurse Aide - 5139012020

MNA	100	Medicaid Nurse Aide OR	3
NAA	100	Nursing Assistant Skills I OR	(3)
NAA	125	Advanced Nursing Assistant OR	(6)
HST	104	Health Care Basic Skills I with Clinical	(3.5)
		Total Credits	3-6

NOTE: Madisonville Community College does not offer NAA 125 or MNA 100.

Kentucky Medication Aide - 5139012030

KMA	100	Kentucky Medication Aide	5
		Total Credits	5

NOTE: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

AHA Advanced Cardiac Life Support - 5139012050

(Offered at MDC)

NIP	220	Advanced Cardiac & Emergent Care	2
		Total Credits	2

Nursing - Practical Nursing

The Practical Nursing program prepares individuals to practice within the legal scope of practical nursing under the supervision of a registered nurse or physician. Use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and

child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of active status on the Medicaid Nurse Aide Registry or successful completion of an equivalent course within the previous three years is required prior to enrolling in the first nursing course. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

Diploma

Practical Nurse - 5139014039

(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, SKY, SMC, WKC)

Practical Nurse Pathway 1 – Traditional - 513901401

(Offered at BLC, GTW, HZC, JFC, SKY, SMC)

General Education:

Area 1 =

TEC 200	Technical Communications OR	3
ENG 101	Writing I OR	(3)
COM 181	Basic Public Speaking OR	(3)
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

BIO 135	Basic Anatomy & Physiology with Laboratory OR	4
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II	(4)
Subtotal		7-11

Technical Core:

AHS 100	Human Growth & Development OR	2
PSY 110	General Psychology AND	(3)
PSY 223	Developmental Psychology	(3)
NPN 100	Introduction to Nursing & Health Care System AND	2
NPN 105	Development of Care Giver Role AND	6
NPN 110	Pharmacology I OR	2
NPN 115	*Practical Nursing Bridge Course	(6)
NPN 125	Mental Health	3
NPN 130	Pharmacology II	3
NPN 135	Introduction to Health Deviations	6
NPN 200	Med Surg I	5
NPN 201	Child Bearing Family	3
NPN 205	Med Surg II	5
NPN 210	Clinical Practicum	4
NPN 215	Nursing Trends & Issues	1
Subtotal		38-46

Total Credits: 45-57

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 2 – Traditional Modified - 513901402

(Offered at ASC, BSC, HPC, MYC, WKC)

General Education:

Area 1 =

TEC 200	Technical Communications OR	3
ENG 101	Writing I OR	(3)
COM 181	Basic Public Speaking OR	(3)
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

BIO 135	Basic Anatomy & Physiology with Laboratory OR	4
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II	(4)

Subtotal 7-11

Technical Core:

AHS 100	Human Growth & Development OR	2
PSY 110	General Psychology AND	(3)
PSY 223	Developmental Psychology	(3)
AHS 120	Medical Terminology OR	1
AHS 115	Medical Terminology OR	(3)
CLA 131	Medical Terminology from Greek and Latin OR	(3)
MIT 103	Medical Office Terminology	(3)
NPN 101	Nursing Fundamentals AND	6
NPN 111	Pharmacology OR	3
NPN 115	*Practical Nursing Bridge Course	(6)
NPN 125	Mental Health	3
NPN 135	Introduction to Health Deviations	6
NPN 201	Child Bearing Family	3
NPN 202	Med-Surg I Alterations	6
NPN 206	Med-Surg II Alterations	6
NPN 210	Clinical Practicum	4
NPN 215	Nursing Trends & Issues	1

Subtotal 38-47

Total Credits 45-58

Recommended Electives:

FHM 100	Dosage Calculations	(2)
MAT 110	Applied Math	(3)
AHS 105	Introductions to Health Occupations	(3)
AHS 130	Infection Control	(2)
NSG 299	Selected Topics in Nursing: (Topic)	(1-4)

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 3 – Modular - 513901403

General Education:

Area 1 =

ENG 101	Writing I	3
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Area 2 =

BIO 137	Human Anatomy & Physiology I	4
BIO 139	Human Anatomy & Physiology II	4
MAT 110	Applied Mathematics	3
PSY 110	General Psychology	3

Subtotal 17

Technical Core:

PSY 223	Developmental Psychology	3
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin	(3)
NPN 106	Fundamentals of Nursing Care	6
NPN 108	Pharmacology in Nursing	3
NPN 125	Mental Health	3
NPN 140	Nursing Care I	3
NPN 201	Child Bearing Family	3
NPN 208	Nursing Care II	10
NPN 210	Clinical Practicum	4
NPN 215	Nursing Trends & Issues	1

Subtotal 39

Total Credits: 56

189

Certificates

Medicaid Nurse Aide - 5139012020

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

MNA	100	Medicaid Nurse Aide OR	3
NAA	100	Nursing Assistant Skills I OR	(3)
NAA	125	Advanced Nursing Assistant OR	(6)
HST	104	Health Care Basic Skills I with Clinical	(3.5)
Total Credits			3-6

Kentucky Medication Aide - 5139012030

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

KMA	100	Kentucky Medication Aide	5
Total Credits			5

Occupational Therapy Assistant

The Occupational Therapy Assistant Program is designed to provide a quality educational experience that will train prospective professionals in the art and science of promoting and maintaining the holistic health and wellness of people, organizations, and populations through engagement in occupation. Graduates will be able to perform/engage as entry level professionals under the supervision of an Occupational Therapist (OT). Graduates will develop skills necessary for employment as Certified Occupational Therapy Assistants, thereby meeting the students' individual needs and the expressed health-care needs of the local and extended communities served by the Colleges. The program strives to fill a growing need for professionals able to contribute to all facets of occupational therapy, from community-based programs to client-centered intervention. The program promotes the value and professional importance of life-long learning.

A basic background in natural sciences, mathematics, communication, and behavioral sciences undergirds the specialized course work. Specialized course work prepares students for the certification examination they will take to become Certified Occupational Therapy Assistants (COTA). Employment may be in hospitals, rehabilitation facilities, nursing homes, clinics, and other health care facilities, as well as within pediatric, community, or educational settings.

Acceptance in to the OTA program is based on a selective admission process. In order to be considered for admission, applicants must comply with college and program admissions requirements. Students enrolled in the OTA program must achieve a minimum grade of a "C" in each OTA course and prerequisite courses.

CPR requirement must be successfully completed prior to enrolling in the first semester of OTA program. The CPR course must be Professional or Healthcare Provider.

Background check and drug screen prior to admission is required by all students, and students with a misdemeanor or felony conviction may be denied permission to access fieldwork sites.

Students will be responsible for their own transportation for fieldwork.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first OTA course.

All prerequisite courses must be complete before a student is admitted in the OTA program.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council on Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200 Bethesda, MD 20814-3449 Phone number: (301) 652-(AOTA). www.acoteonline.org

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.

Associate in Applied Science

Occupational Therapy Assistant - 5108037009

(Offered at JFC, MDC)

General Education Core:

ENG	101	Writing I	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communication	(3)
		Heritage/Humanities*	3
Total			15

*MCC recommends REL 130 to fulfill the Heritage/Humanities requirement.

Pathway # 1 - 510803701

(Offered at MDC)

Additional General Education (MCC Only):

BIO	137	Human Anatomy and Physiology I	4
BIO	139	Human Anatomy and Physiology II	4
MAT	110	Applied Mathematics OR	3
MAT	150	College Algebra	(3)
Subtotal Credits (MCC Only)			26

Technical Core :

OTA	101	Introduction to Occupational Therapy	3
OTA	126	Level IA Fieldwork	1
OTA	146	Occupational Therapy in Mental Health	3
OTA	136	Physical Dysfunction	4
OTA	226	Level IB Fieldwork	1
OTA	246	Pediatric Issues in Occupation Therapy	3
OTA	256	Elder Issues in Occupational Therapy	2
OTA	206	Community Practice	2
OTA	236	Professional Transitions and Management	2
OTA	267	Level IIA Fieldwork	5
OTA	277	Level IIB Fieldwork	5
Subtotal			31

Additional Technical Courses (MCC only):

OTA	113	Applied Anatomy and Kinesiology	2
OTA	115	Skills and Interventions I	2
OTA	125	Assistive Technology and Documentation	2
OTA	225	Skills and Interventions II	2
OTA	286	Clinical Seminar	2
Total Additional Technical Credits			10

Alternate Pathway #1 for MCC/Total Credits 67

Pathway #2 - 510803702

(Offered at JFC)

General Education Core:

ENG	101	Writing I	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
COM	181	Basic Public Speaking OR	3
COM	252	Introduction to Interpersonal Communication	(3)
		Heritage/Humanities	3
		Total	15

Additional General Education (JCTC Only):

BIO	137	Human Anatomy and Physiology I	4
BIO	139	Human Anatomy and Physiology II	4
MAT	110	Applied Mathematics OR	3
MAT	150	College Algebra	(3)
SOC	101	Introduction to Sociology	3
ENG	102	Writing II	3
		Subtotal	17

Technical Core:

OTA	101	Introduction to Occupational Therapy	3
OTA	126	Level IA Fieldwork	1
OTA	146	Occupational Therapy in Mental Health	3
OTA	136	Physical Dysfunction	4
OTA	226	Level IB Fieldwork	1
OTA	246	Pediatric Issues in Occupation Therapy	3
OTA	256	Elder Issues in Occupational Therapy	2
OTA	206	Community Practice	2
OTA	236	Professional Transitions and Management	2
OTA	267	Level IIA Fieldwork	5
OTA	277	Level IIB Fieldwork	5
		Subtotal	31

Additional Technical Courses (JCTC only):

OTA	116	Media Principles & Procedures I	2
OTA	216	Media Principles & Procedures II	2

Recommended Additional Technical Courses (JFC only):

OTA	286	Clinical Seminar	(2)
		Total Additional Technical Credit	4

Alternate Pathway for JCTC/Total Credits **67**

Paralegal Technology

The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants' Descriptions of Certified Legal Assistant (CLA) Exam Sections.

The successful completion of the Paralegal Technology Program should provide the student the opportunity for employment as a paralegal in private law firms, courts, trust departments of banks, corporations, and government agencies.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of "C" or better in each paralegal technical course.

The Associate in Applied Science degree received upon completion of this concentration is not designed for transfer to a senior college or university. It is designed for immediate employment preparation.

+Students should contact the senior college or university of their choosing to determine what, if any, courses will be accepted as transfer credits.

Associate in Applied Science

Paralegal Technology - 2203027019

(Offered at MDC)

ENG	101	Writing I	3
		Quantitative Reasoning	3
		Natural Sciences	3
		Social/Behavioral Sciences*	3
		Heritage/Humanities	3
POL	101	American Government	3
COM	181	Basic Public Speaking	3
		Subtotal	21

Technical Support Courses:

		Computer/Digital Literacy Course	3
CIT	130	Productivity Software	3
		Criminal Justice Elective Course**	3
		Subtotal	9

Technical Courses:

PGL	111	Legal Systems and Terminology	3
PGL	112	Legal Research	3
PGL	113	Law Office Management	3
PGL	211	Family Law	3
PGL	212	Legal Writing	3
PGL	221	Wills and Estates	3
PGL	213	Civil Litigation I	3
PGL	214	Real Property I	3
PGL	223	Civil Litigation II	3
PGL	224	Real Property II	3
PGL	231	Torts	3
PGL	233	Ethics	3
		Subtotal	36

Total **66**

*PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.

**CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

Certificate

Paralegal Technology – 2203023019

(Offered at MDC)

ENG	101	Writing I	3
		Computer/Digital Literacy Course	3
CIT	130	Productivity Software	3
PGL	111	Legal Systems and Terminology	3
PGL	112	Legal Research	3
PGL	211	Family Law	3
PGL	212	Legal Writing	3
PGL	213	Civil Litigation I	3
PGL	221	Wills and Estates	3
PGL	214	Real Property I	3
PGL	223	Civil Litigation II	3
PGL	224	Real Property II	3
PGL	231	Torts	3
		Total	39

Pharmacy Technology

The pharmacy technician performs technical functions under the direction of a Registered Pharmacist; including prescription preparation, inventory, repackaging, and compounding. The essential elements of this program include the history of pharmacy, pharmacy law, medical terminology, drug classification and prescription preparation. Laboratory experience and an externship under the supervision of a licensed pharmacist are required components of the program.

Progression in the Pharmacy Technician program is contingent upon achievement of a grade of "C" or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Diploma

Pharmacy Technician II - 5108054029

(Offered at ASC, BLC, HPC, JFC, SMC)

General Education:

Area 1 =

COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communication	(3)

Area 2 =

BIO 130	Aspects of Human Biology OR	3
BIO 135	Basic Anatomy and Physiology with Laboratory OR	(4)
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II	(4)
Subtotal		6-11

CIT 105	Computer/Digital Literacy	0-3
EFM 100	Personal Financial Management OR	3
BAS 120	Personal Finance OR	(3)
WPP 200	Workplace Principles	(3)
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin OR	(3)
MIT 103	Medical Office Terminology	(3)
PHA 110	Pharmacy Procedures and Skills	6
PHA 145	Pharmaceutical Calculations	3
PHA 136	Pharmacology	3
PHA 200	Admixtures for IV Therapy	3
PHA 205	Admixture Preparations	1
PHA 210	Drug Classifications	6
PHA 250	Pharmacy Experience	2-8
Subtotal		30-39

Total Credits 36-50

Additional Suggested Courses (Not Required):

AHS 100	– Human Growth and Development (2)
AHS 130	– Infection Control (2)
AHS 201	– Management Principles for Allied Health Providers (3)
AHS 203	– Diversity in Health Care (3)
BAS 160	– Introduction to Business (3)
KHP 190	– First Aid and Emergency Care (2)

Certificates

Pharmacy Technician I - 5108053029

(Offered at ASC, HPC, JFC, OWC, SMC, WKC)

COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communication OR	(3)
COM 101	Introduction to Communications*	(3)
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin OR	(3)
MIT 103	Medical Office Terminology	(3)
PHA 110	Pharmacy Procedures and Skills	6

PHA 145	Pharmaceutical Calculations	3
PHA 136	Pharmacology	3
PHA 104	Parenterals**	2
PHA 250	Pharmacy Experience	2
	Digital Literacy	0-3
Total Credits		22-25

Retail Pharmacy Technician - 5108053039

(Offered at ASC, HPC, JFC, SMC)

COM 181	Basic Public Speaking OR	3
COM 252	Introduction to Interpersonal Communication OR	(3)
COM 101	Introduction to Communications*	(3)
AHS 115	Medical Terminology OR	3
CLA 131	Medical Terminology from Greek and Latin OR	(3)
MIT 103	Medical Office Terminology	(3)
PHA 110	Pharmacy Procedures and Skills	6
PHA 145	Pharmaceutical Calculations	3
PHA 136	Pharmacology	3
	Digital Literacy	0-3
Total Credits		18-21

*COM 101 may be used in certificates. If taken in the diploma, an additional three (3) credits will be needed to meet Area 1 requirements.

**PHA 200 and PHA 205 may substitute for PHA 104 but PHA 104 will not substitute for PHA 200 and PHA 205.

Physical Therapist Assistant

This program prepares the individual to become a physical therapist assistant (PTA) who is able to perform selected components of intervention and data collection under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE*).

The curriculum combines general education and physical therapy courses. Various facilities are utilized for clinical experiences. The graduate is eligible to sit for the national licensing examination for the physical therapist assistant. Enrollment in this program is limited; therefore, a selective admissions process is followed.

Students enrolled in the Physical Therapist Assistant program must achieve a minimum grade of "C" in each required general education course; a minimum grade of "C" in each required PTA didactic course; and a grade of pass in each clinical practicum course to complete the program.

CPR requirements must be attained by completing a program-approved CPR course prior to enrolling in the first physical therapist assistant course and must be kept current throughout the program.

*The Physical Therapist Assistant programs at Hazard Community and Technical College / Southeast Kentucky Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, and West Kentucky Community and Technical College are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria VA, 22314; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: www.capteonline.org

Associate in Applied Science

Physical Therapist Assistant - 5108067049

(Offered at BSC, HPC, HZC, JFC, MDC, SEC, SMC, WKC)

Pathway 1 - 510806703

(Offered at BSC, HPC, HZC, JFC, SEC, SMC, WKC)

General Education:

ENG	101	Writing I	3
BIO	137	Human Anatomy and Physiology I	4
BIO	139	Human Anatomy and Physiology II	4
		Heritage/Humanities	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
MAT	150	College Algebra or higher	3
		Oral Communications	3
		Subtotal	26

Technical Courses:

		Digital Literacy	0-3
PTA	101	Orientation to Physical Therapy Practice	5
PTA	125	Neuroanatomy for the PTA	1
PTA	150	Functional Anatomy and Kinesiology	6
PTA	160	Medical and Surgical Conditions in Physical Therapy	3
PTA	170	Clinical Practicum I	1
PTA	200	Modalities and Procedures in Physical Therapy	5
PTA	220	Physical Therapy Principles and Procedures	5
PTA	240	Clinical Practicum II	2
PTA	250	Neurological Rehabilitation in Physical Therapy	5
PTA	260	Seminar in Physical Therapy	2
PTA	280	Clinical Practicum III	5
		Subtotal	40-43

Total

66-69

Pathway 2 - 510806704

(Offered at MDC)

General Education:

ENG	101	Writing I	3
BIO	137	Human Anatomy and Physiology I	4
BIO	139	Human Anatomy and Physiology II	4
		Heritage/Humanities	3
PSY	110	General Psychology	3
PSY	223	Developmental Psychology	3
MAT	150	College Algebra or higher	3
COM	181	Basic Public Speaking	3
		Subtotal	26

Technical Support Courses:

AHS	105	Introduction to Allied Health Occupations	3
		Subtotal	3

Technical Courses:

		Digital Literacy	0-3
PTA	1501	Functional Anatomy & Kinesiology Lab	3
PTA	1502	Functional Anatomy & Kinesiology Lecture	3
PTA	120	Basic Skills for the PTA	2
PTA	121	Basic Skills for the PTA Lab	2
PTA	170	Clinical Practicum I	1
PTA	222	Pathology & Rehabilitation of Orthopedic Conditions	2
PTA	223	Pathology & Rehabilitation of Orthopedic Conditions Lab	2
PTA	234	Pathology & Rehabilitation of Neurological & Pediatric Conditions	2
PTA	233	Pathology & Rehabilitation of Neurological & Pediatric Conditions Lab	2
PTA	202	Therapeutic Modalities in Physical Therapy	2
PTA	203	Therapeutic Modalities in Physical Therapy Lab	2
PTA	240	Clinical Practicum II	2

PTA	256	Pathology & Rehabilitation of Special Populations & Conditions	2
PTA	255	Pathology & Rehabilitation of Special Populations & Conditions Lab	1
PTA	260	Seminar in Physical Therapy	2
PTA	280	Clinical Practicum III	5
		Subtotal	35-38
		Total Credits (Pathway 2)	64-67

Plastics Processing

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

Certificate

Plastics Processing - 1506073049

(Offered at MYC)

ITE	233	Statistical Process Control	3
ELT	107	Computer Applications for Technicians	4
ISX	101	Introduction to Industrial Safety	3
PL	101	Plastic Processes and Materials	4
PL	151	Polymer Science & Testing	4
PL	251	Injection Molding OR	4
PL	261	Plastics Extrusion	(4)
		Total Credits	22

Plumbing Technology

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Progression in the Plumbing technology program is contingent upon achievement of a grade of "C" or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Plumbing Technology - 4605037019

(Offered at ELC)

General Education:

ENG	101	Writing I	3
		Quantitative Reasoning	3
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
		Natural Sciences	3
		Oral Communications	3
		Subtotal	18

Technical Courses:

		Computer/Digital Literacy	3
PLB	150	Plumbing, Introduction to the Trade AND	3
PLB	151	Basic Plumbing Skills OR	3
PLB	100	Basic Theory of Plumbing AND	(3)
PLB	105	Plumbing Principles	(3)
PLB	160	Plumbing Systems, DWV & Water	3
PLB	161	Rough-In of Plumbing Fixtures	2
PLB	250	Plumbing Appliances & Fixtures	3
PLB	251	Pumps & Water Heaters	2
PLB	260	Service AND	2

PLB 261	Advanced Plumbing Lab OR	2
PLB 265	Valve & Faucet Repairs AND	(1)
PLB 267	Water Heater Service & Replacement AND	(1)
PLB 269	Sewer & Drain Cleaning	(1)
PLB 262	Back Flow Prevention	3
PLB 270	License Preparation for Journeyman Exam	3
PLB 298	Plumbing Practicum/Repairs & Maintenance OR	4
PLB 299	Plumbing Cooperative Education	(4)
BRX 220	Blueprint Reading for Construction	3
BAS 120	Personal Finance OR	3
EFM 100	Personal Financial Management	(3)
WPP 200	Workplace Principles OR	3
BAS 250	Business Employability Seminar	(1)
ISX 101	Introduction to Industrial Safety OR	(3)
ISX 100	Industrial Safety	3
	Subtotal	42-45
	Total	60-63

Diploma

Plumber Mechanic - 4605034019

(Offered at ELC, JFC, MYC)

General Education:

Area 1 =	Written Communication, Oral Communications, or Heritage/Humanities	3
Area 2 =	Quantitative Reasoning	3
	Subtotal	6

Technical Courses:

	Computer/Digital Literacy course or demonstrated competency	0-3
PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 160	Plumbing Systems, DWV & Water	3
PLB 161	Rough-In of Plumbing Fixtures	2
PLB 250	Plumbing Appliances & Fixtures	3
PLB 251	Pumps & Water Heaters	2
PLB 260	Service AND	2
PLB 261	Advanced Plumbing Lab OR	2
PLB 265	Valve & Faucet Repairs AND	(1)
PLB 267	Water Heater Service & Replacement AND	(1)
PLB 269	Sewer & Drain Cleaning	(1)
PLB 262	Back Flow Prevention	3
PLB 270	License Preparation for Journeyman Exam OR	3
PLB 298	Plumbing Practicum/Repairs & Maintenance OR	4
PLB 299	Plumbing Cooperative Education	(4)
BRX 220	Blueprint Reading for Construction	3
EFM 100	Personal Financial Management OR	3
BAS 120	Personal Finance	(3)
WPP 200	Workplace Principles OR	3
BAS 250	Business Employability Seminar	(1)
ISX 101	Introduction to Industrial Safety OR	3
ISX 100	Industrial Safety	(3)
	Subtotal	39-45
	Total	45 - 51

Certificates

Certified Backflow Tester* - 4605033079

(Offered at BSC, ELC, JFC, MYC)

PLB 262	Backflow Prevention	3
	Total	3

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Finish Plumber - 4605033069

(Offered at BSC, ELC, JFC, MYC)

PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 250	Plumbing Appliances & Fixtures	3
PLB 251	Pumps & Water Heaters	2
	Electives (Technical Core)	6
	Total	17

Maintenance Plumber - 4605033049

(Offered at BSC, ELC, JFC, MYC)

PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 115	Plumbing Applications	4
ISX 101	Introduction to Industrial Safety OR	3
ISX 100	Industrial Safety	(3)
	Total	13

1st Year Plumber Mechanic - 4605033109

(Offered at ELC, JFC, MYC)

PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 160	Plumbing Systems, DWV & Water	3
PLB 161	Rough-In of Plumbing Fixtures	2
PLB 250	Plumbing Appliances & Fixtures	3
PLB 251	Pumps & Water Heaters	2
	Total	16

2nd Year Plumber Mechanic* - 4605033119

(Offered at ELC, JFC, MYC)

PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 160	Plumbing Systems, DWV & Water	3
PLB 161	Rough-In of Plumbing Fixtures	2
PLB 250	Plumbing Appliances & Fixtures	3
PLB 251	Pumps & Water Heaters	2
PLB 262	Backflow Prevention	3
PLB 260	Service AND	2
PLB 261	Advanced Plumbing Lab AND	2
PLB 270	License Preparation for Journeyman Exam OR	3
PLB 260	Service AND	(2)
PLB 265	Valve & Faucet Repairs AND	(1)
PLB 267	Water Heater Service & Replacement AND	(1)
PLB 269	Sewer & Drain Cleaning	(1)
	Total	24-26

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Plumber Estimator - 4605033099

(Offered at BSC, ELC, JFC, MYC)

PLB 150	Plumbing, Introduction to the Trade AND	3
PLB 151	Basic Plumbing Skills OR	3
PLB 100	Basic Theory of Plumbing AND	(3)
PLB 105	Plumbing Principles	(3)
PLB 160	Plumbing Systems, DWV & Water AND	3
PLB 161	Rough-In of Plumbing Fixtures OR	2
PLB 250	Plumbing Appliances & Fixtures AND	(3)
PLB 251	Pumps & Water Heaters	(2)
PLB 261	Advanced Plumbing Lab OR	2

PLB	265	Valve & Faucet Repairs AND	(1)
PLB	267	Water Heater Service & Replacement AND	(1)
PLB	269	Sewer & Drain Cleaning	(1)
PLB	270	License Preparation for Journeyman Exam	3
BRX	220	Blueprint Reading for Construction	3
WPP	200	Workplace Principles OR	3
BAS	250	Business Employability Seminar	(1)
		Mathematics	3
		Computer/Digital Literacy	0-3
		Total	23-29

Plumber's Helper - 4605033129

(Offered at ELC, GTW, JFC, MYC)

PLB	150	Plumbing, Introduction to the Trade AND	3
PLB	151	Basic Plumbing Skills OR	3
PLB	100	Basic Theory of Plumbing AND	(3)
PLB	105	Plumbing Principles	(3)
		Elective (Technical Core)	3
		Total	9

Rough Plumber - 4605033059

(Offered at ELC, JFC, MYC)

PLB	150	Plumbing, Introduction to the Trade AND	3
PLB	151	Basic Plumbing Skills OR	3
PLB	100	Basic Theory of Plumbing AND	(3)
PLB	105	Plumbing Principles	(3)
PLB	160	Plumbing Systems, DWV & Water	3
PLB	161	Rough-In of Plumbing Fixtures	2
		Electives (Technical Core)	6
		Total	17

Service & Repair Plumber - 4605033089

(Offered at ELC, JFC, MYC)

PLB	150	Plumbing, Introduction to the Trade AND	3
PLB	151	Basic Plumbing Skills OR	3
PLB	100	Basic Theory of Plumbing AND	(3)
PLB	105	Plumbing Principles	(3)
PLB	160	Plumbing Systems, DWV & Water	3
PLB	161	Rough-In of Plumbing Fixtures	2
PLB	250	Plumbing Appliances & Fixtures	3
PLB	251	Pumps & Water Heaters	2
PLB	260	Service & Code Review	2
PLB	261	Advanced Plumbing OR	2
PLB	265	Valve & Faucet Repairs AND	(1)
PLB	267	Water Heater Service & Replacement AND	(1)
PLB	269	Sewer & Drain Cleaning	(1)
		Total	20-21

Professional Craft: Pottery

This program is designed to prepare individuals for employment as professional potters or in pottery-related fields. The curriculum introduces both traditional and contemporary concepts of pottery. The program provides training in technical skills, design skills, and marketing and business essentials. Course work includes development of basic and advanced throwing skills with emphasis on form and design. Study will include pottery studio design and marketing procedures for the professional potter. Graduates will be able to open and operate their own pottery, work for existing pottery businesses, or transfer to a four-year degree program. Upon completion, graduates will receive an Associate in Applied Science degree.

Kiln Building for Professional Potters Certificate:

Includes instruction in the methods of kiln construction, the principles used in designing kilns, and instruction in how to prepare layouts for building kilns. Topics include safety, historical and perspective, materials, design, type, fuels, and firing process. The program will also provide students with hands on experience in the building of kilns for use by professional potters. Students will participate in the building of two different types of kilns using two different types of fuels. Upon successful completion of the program, students will be able to supervise the construction of kilns for use by professional potters.

Professional Raku Pottery Certificate:

Provides students with advanced instruction in the techniques of producing and firing raku pottery. The program provides instruction in advanced shapes and decoration; constructing, loading, and firing a personal raku kiln; and the creation of a body of work for a one-person show and sale.

Certificates

Kiln Building for Professional Potters - 5007113029

(Offered at SEC)

PC	110	Introduction to Pottery	7
PC	250	Professional Kiln Design	5
PC	252	Professional Kiln Building	5
		Total	17

Professional Raku Pottery - 5007113019

(Offered at SEC)

PC	110	Introduction to Pottery	7
PC	254	Professional Raku Pottery I	5
PC	256	Professional Raku Pottery II	5
		Total	17

Professional Studio Artist

The Professional Studio Artist (PSA) program prepares individuals for careers as independent studio artists and business owners, designers, performers and studio technicians. The curriculum offers technical, design, product development and performance classes in a variety of disciplines coupled with business, marketing and management courses. Class work covering the history and traditions of each discipline, basic studio development and technology requirements will be a vital part of the student's education. Students will complete a track of study and acquire the necessary technical proficiencies, creative problem solving, business skills, production processes and the knowledge to apply these aspects to careers in the craft, music, theater, or applied arts fields.

The AAS Track in Wood/Furniture Design prepares a student to start a business in studio furniture design and manufacturing, begin employment as a designer/maker for a small to mid-size woodworking company, work as a model maker/prototype builder for the wood/furniture industry, work as a furniture maker/technician, start a career as a furniture conservationist, or pursue a four-year degree. The program of study will offer a diverse and comprehensive study in furniture design and making; the technology of wood as a material; the technical aspects of wood machinery and hand tool usage; the importance and applications of drawing and design; and the practicality of business ownership, craft marketing and business management.

The diploma in Wood Studio Technician and the certificate in Furniture Making Fundamentals will afford students the opportunity to acquire

specialized and basic technical skills as furniture makers. The Wood Studio Certificate will give the student an intensive foundation in wood-working techniques and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of woodworking and furniture making procedures necessary for entry-level positions in the custom furniture industry.

The AAS Jewelry/Metals Track prepares a student to start a business in studio jewelry design, producing one-of-a-kind and limited production works for the private market; work in a commercial studio as a professional jeweler or as a model designer/fabricator; or to enter into the field of jewelry/metal conservation. Creative problem solving and functional design are essentials to the program as well as extensive laboratory coursework in all aspects of bench jewelry repair, the metallurgical science of precious metals, traditional and non-traditional metal processes, processes of jewelry mass production, silversmithing, goldsmithing and work in new technologies such as computer-aided jewelry design.

The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as jewelry makers and technicians. The Jewelry Studio certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry-level positions in the custom or commercial jewelry industry.

The AAS Track in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and song writing. The track also provides training in music business, management and event promotion while providing the student preparation to pursue a four-year degree. Program studies will offer in-depth mentoring and "real world" performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

Associate in Applied Science

Professional Studio Artist - 5002017019

(Offered at HZC)

ENG	101	Writing I	3
MAT	110	Applied Mathematics OR	3
		Any higher level Quantitative Reasoning course	(3)
COM	252	Introduction to Interpersonal Communications OR	3
COM	181	Basic Public Speaking	(3)
		Heritage/Humanities**	3
		Natural Sciences	3-4
		Social/Behavioral Sciences	3
		Subtotal	18-19

**HUM 202 for Bluegrass and Traditional Music Track

Wood/Furniture Design Track - 500201701

ART	110	Drawing I	3
ART	112	2-Dimensional Design	3
ART	113	3-Dimensional Design	3
BAS	200	Small Business Management	3
ACT	101	Fundamentals of Accounting I	3
PSW	111	Introduction to Furniture Making	3
PSW	115	Furniture Making II	3
PSW	116	Wood Finishing	2
PSW	117	Wood Turning for Furniture	3
PSW	210	Furniture Making III	3
PSW	211	Wood Bending and Veneering	3
PSW	212	Chair Design.....	3
PSW	215	Furniture Making IV	3
PSW	220	Furniture/Wood Product Development	2
PSA	240	Professional Artist Seminar	3
		Sub-Total	43

Total Credits

61-62

PSW	230	Furniture Making V (Optional).....	(6)
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Jewelry/Metals Track - 500201702

ART	112	Drawing I	3
ART	113	2-Dimensional Design	3
ART	130	3-Dimensional Design	3
BAS	200	Small Business Management	3
ACT	101	Fundamentals of Accounting I	3
PSJ	110	Jewelry/Metals I	3
PSJ	115	Jewelry/Metals II	3
PSJ	116	Ancient Techniques	3
PSJ	117	Metal Casting /Finishing Techniques	2
PSJ	210	Jewelry/Metals III	3
PSJ	211	Hollowware and Metal Forming	3
PSJ	212	Metallurgy of Precious Metals.....	2
PSJ	215	Jewelry/Metals IV.....	3
PSJ	216	Stone Setting	3
PSJ	220	Jewelry/Metals Product Development	2
PSA	240	Professional Artist Seminar	3
		Sub Total	45

Total Credits

63-64

PSJ	230	Jewelry/Metals IV (Optional).....	(6)
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Bluegrass and Traditional Music Track - 500201703

(Offered HZC)

BAS	200	Small Business Management	3
ACT	101	Fundamentals of Accounting I	3
MUS	174	Theory for Non-Music Majors	3
MUC	150	Classic Instruction to Piano OR.....	0-1
		Competency by audition	
PSM	101	Bluegrass & Traditional Music History I	3
PSM	105	Recording I	1
PSM	107	Songwriting I.....	1

PSM	112	Individual String Instrument Instruction x 4.....	4
PSM	113	Guitar I OR.....	0-1
		Competency by audition	
PSM	114	Bluegrass & Traditional Band/Ensemble x4.....	8
PSM	118	Bluegrass & Traditional Harmony/Part Singing.....	2
PSM	121	Bluegrass & Traditional Music History II.....	3
PSM	125	Recording II OR.....	1
PSM	117	Songwriting II.....	(1)
PSM	231	Bluegrass & Traditional Music III.....	3
PSM	235	Recording III OR.....	2
PSM	217	Songwriting III.....	(2)
PSM	245	Recording IV OR.....	2
PSM	227	Songwriting IV.....	(2)
PSA	240	Professional Artist Seminar.....	3
		Subtotal	42-44
		Total Credits	60-63

PSM	241	Bluegrass & Traditional Music IV.....	(3)
PSM	250	Field Experience/Production Business.....	(3)

Ceramics Track - 500201704

ART	110	Drawing I.....	3
ART	112	2-Dimensional Design.....	3
ART	113	3-Dimensional Design.....	3
BAS	200	Small Business Management.....	3
ACT	101	Fundamentals of Accounting I.....	3
PSC	112	Ceramics I.....	3
PSC	115	Ceramics II.....	3
PSC	117	Glaze Calculations.....	3
PSC	210	Ceramics III.....	3
PSC	211	Kiln Operation and Design.....	3
PSC	212	Ceramic Production Techniques.....	3
PSC	215	Ceramics IV.....	3
PSC	220	Ceramics Product Development.....	3
PSC	230	Ceramics V.....	3
PSA	240	Professional Artist Seminar.....	3
		Sub Total	45
		Total Credits	63-64

Diplomas

Wood Studio Technician - 5002014019

ENG	101	Writing I.....	3
MAT	110	Applied Mathematics OR.....	3
		Any higher level Quantitative Reasoning course.....	(3)
		Subtotal	6

Technical/Support Courses

		Digital Literacy OR.....	0-3
		Digital Competency by exam	
ART	110	Drawing I.....	3
ART	130	3-Dimensional Design.....	3
BAS	200	Small Business Management.....	3
PSW	111	Introduction to Furniture Making.....	3
PSW	115	Furniture Making II.....	3
PSW	116	Wood Finishing.....	2
PSW	117	Wood Turning for Furniture.....	3
PSW	211	Wood Bending and Veneering.....	3
PSW	215	Furniture Making IV.....	3
PSW	220	Furniture/Wood Product Development.....	2
		Subtotal	28-31
		Total Credits	34-37

Jewelry/Metals Technician - 5002014029

ENG	101	Writing I.....	3
MAT	110	Applied Math OR.....	3
		Any higher level math	
		Subtotal	6

Technical/Support Courses

		Digital Literacy OR.....	0-3
		Digital Competency by exam	
ART	110	Drawing I.....	3
ART	113	3-Dimensional Design.....	3
BAS	200	Small Business Management.....	3
PSJ	110	Jewelry/Metals I.....	3
PSJ	115	Jewelry/Metals II.....	3
PSJ	117	Metal Casting /Finishing Techniques.....	2
PSJ	210	Jewelry/Metals III.....	3
PSJ	211	Hollowware and Metal Forming.....	3
PSJ	212	Metallurgy of Precious Metals.....	2
PSJ	215	Jewelry/Metals IV.....	3
PSJ	216	Stone Setting.....	3
		Subtotal	31-34
		Total Credits	37-40

Bluegrass & Traditional Studio Artist - 5002014039

(Offered at HZC)

General Education:

Area 1 =	Written/ Oral Communications, and/or	
	Heritage/Humanities.....	3-6
Area 2 =	Social/Behavioral Science, Natural Science and/or	
	Quantitative Reasoning.....	3-6
	Subtotal	9

Support Courses

BAS	200	Small Business Management.....	3
HUM	202	Survey of Appalachian Studies I.....	3
MUS	174	Theory for Non-Music Majors.....	3
		Subtotal	9

Technical Courses

		Digital Literacy OR.....	0-3
		Digital Literacy Competency by exam	
PSM	101	Bluegrass & Traditional Music History I.....	3
PSM	113	Guitar I OR.....	0-1
		Competency by audition	
PSM	105	Recording I.....	1
PSM	107	Songwriting I.....	1
PSM	112	Individual String Instrument Instruction x4.....	4
PSM	114	Bluegrass & Traditional Band/Ensemble x4.....	8
PSM	241	Bluegrass & Traditional Music IV (elective).....	0-3
PSM	250	Field Experience/Production/Business (elective).....	0-3
		Subtotal	17-27
		Total Credits	35-45

Ceramics Studio Technician - 5002014049

ENG	101	Writing I.....	3
MAT	110	Applied Mathematics OR.....	3
		Any higher level Quantitative Reasoning course.....	(3)
		Subtotal	6

Technical/Support Courses

		Digital Literacy OR.....	0-3
		Digital Competency by exam	
ART	110	Drawing I.....	3
ART	113	3-Dimensional Design.....	3
BAS	200	Small Business Management.....	3
PSC	112	Ceramics I.....	3
PSC	115	Ceramics II.....	3
PSC	117	Glaze Calculations.....	2
PSC	210	Ceramics III.....	3
PSC	211	Kiln Operation and Design.....	3
PSC	212	Ceramic Production Techniques.....	3
PSC	215	Advanced Ceramics IV.....	3
		Subtotal	30-33
		Total Credits	36-39

Certificates

Furniture Making Fundamentals - 5002013029

ART	110	Drawing I	3
PSW	111	Introduction to Furniture Making	3
PSW	115	Furniture Making II	3
PSW	116	Wood Finishing	2
PSW	211	Wood Bending and Veneering	3
Total Credits			14

Wood Furniture Studio - 5002013059

PSW	111	Introduction to Furniture Making	3
PSW	115	Furniture Making II	3
PSW	116	Wood Finishing	2
PSW	117	Wood Turning for Furniture	3
PSW	211	Wood Bending and Veneering	3
Total Credits			14

Jewelry/Metals Fundamentals - 5002013019

ART	110	Drawing I	3
ART	112	2-Dimensional Design	3
PSJ	110	Jewelry/Metals I	3
PSJ	115	Jewelry/Metals II	3
PSJ	210	Jewelry/Metals III	3
Total Credits			15

Jewelry Studio - 5002013069

PSJ	110	Jewelry/Metals I	3
PSJ	115	Jewelry/Metals II	3
PSJ	116	Ancient Techniques	3
PSJ	117	Metal Casting/Finishing Techniques	2
PSJ	211	Hollowware and Metal Forming	3
PSJ	212	Metallurgy of Precious Metals	2
Total Credits			16

Bluegrass & Traditional Music Fundamentals - 5002013039

(Offered at HZC)

BAS	200	Small Business Management	3
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Technical Courses

PSM	112	Individual String Instrument Instruction x2	2
PSM	105	Recording I	1
PSM	107	Songwriting I	1
PSM	114	Bluegrass & Traditional Band/Ensemble x2	4
PSM	101	Bluegrass & Traditional Music History I	3
PSM	113	Guitar I OR	0-1
Competency by audition			
Total Credits			14-15

Audio Recording – 5002013089

(Offered at HZC)

BAS	200	Small Business Management	3
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Guided Electives (Select 2 of the following):

PSM	101	Bluegrass & Traditional Music History I	3
MUS	100	Intro to Music	3
MUS	104	Introduction to Jazz History	3
MUS	222	History and Sociology of Rock Music	3

Technical Electives (Select 1 of the following):

PSM	107	Songwriting I	1
PSM	112	Individual Stringed Instruction	1
PSM	113	Guitar I	1

Technical Courses

PSM	105	Recording I	1
PSM	125	Recording II	1
PSM	235	Recording III	2
PSM	245	Recording IV	2
Total Credits			16

Ceramics Fundamentals - 5002013049

ART	110	Drawing I	3
ART	112	2-Dimensional Design	3
PSC	112	Ceramics I	3
PSC	115	Ceramics II	3
PSC	117	Glaze Calculations	3
PSC	211	Kiln Operation and Design	3
Subtotal			18

Ceramics Studio -5002013079

PSC	112	Ceramics I	3
PSC	115	Ceramics II	3
PSC	117	Glaze Calculations	3
PSC	211	Kiln Operation and Design	3
PSC	212	Ceramics Production Techniques	3
Subtotal			15

Project Lead the Way

Project Lead the Way complements traditional college-preparatory academic studies with challenging career/technical studies, providing students with hands-on exposure to real-life engineering or biomedical challenges.

Certificate

Biomedical Science – PLTW – 5100003040

(Offered at HZC, OWC)

PLW	130	Principles of Biomedical Sciences	4
PLW	135	Principles of Human Body Systems	4
PLW	140	Medical Interventions	4
PLW	145	Biomedical Innovations	4
Total Credits			16

Engineering Related – PLTW – 1515993019

(Offered at OWC, MDC, SEC)

PLW	100	Introduction to Engineering Design	4
PLW	125	Principles of Engineering	4
PLW	150	Digital Electronics	4
PLW	200	Aerospace Engineering or	4
PLW	225	Civil Engineering and Architecture or	(4)
PLW	250	Computer Integrated Manufacturing	(4)
PLW	295	Engineering Design and Development	4
Total Credits			20

Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionizing radiation for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematics and general education. Students enrolled in the Radiography program must achieve a minimum grade of "C" in each Radiography course, required natural science course, and required quantitative reasoning course. Upon

completion of the program, the graduate is eligible to apply to write the examination for registration as a radiographer by the American Registry of Radiologic Technologists. Radiographers may find positions in hospitals, health clinics, and physicians' offices. Research laboratories and some industrial firms may also employ radiographers. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in an accredited radiography or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT and MRI tracks focus on the physics, instrumentation and imaging techniques of these modalities. The student may choose CT or MRI or both. Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Note: Hours Exception (71-75 for the A.A.S. and 56-62 for the Diploma) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Radiography - 5109117019

(Offered at BLC, ELC, HPC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

General Education:

	Social/Behavioral Sciences	3
	Heritage/Humanities	3
	Oral Communications	3
ENG 101	Writing I	3
MAT 150	College Algebra OR	3
	Higher Level Quantitative Reasoning Course	(3)
BIO 137	Human Anatomy & Physiology I	4
BIO 139	Human Anatomy & Physiology II	4
PHY 172	Physics for Health Sciences OR	2
PHY 152	Introduction to Physics OR	(3)
PHY 171	Applied Physics	(4)
	Subtotal	25-27

Support Course:

CLA 131	Medical Terminology from Greek & Latin OR	3
AHS 115	Medical Terminology	(3)
	Subtotal	3

Pathway 1 – 510911701

(Offered at BLC, HZC, SEC)

Technical Courses:

IMG 100	Radiography I	7
IMG 101	Clinical I	4
IMG 110	Radiography II	7
IMG 111	Clinical II	4
IMG 201	Clinical III	3
IMG 210	Radiography IV	4
IMG 211	Clinical IV	6

IMG 220	Radiography V	4
IMG 221	Clinical V	6
	Subtotal	45

Total Credits Pathway 1

73-75

Pathway 2 – 510911702

(Offered at ELC, HPC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

Technical Courses:

IMG 104	Introduction to Radiography	2
IMG 106	Patient Care in Radiography*	2
IMG 108	Radiographic Procedures I	4
IMG 109	Clinical Practice I	1
IMG 114	Image Production and Acquisition	2
IMG 116	Advanced Patient Care in Radiography	2
IMG 118	Radiographic Procedures II	4
IMG 119	Clinical Practice II	3
IMG 209	Clinical Practice III	3
IMG 214	Imaging Equipment	2
IMG 216	Basic Computed Tomography	1
IMG 219	Clinical Practice IV	6
IMG 224	Radiation Protection & Biology	2
IMG 226	Radiography Pathology	1
IMG 228	Radiography Seminar	2
IMG 229	Clinical Practice V	6
	Subtotal	43

Total Credits Pathway 2

71-73

*NAA 100 may be substituted for IMG 106.

Certificate

Advanced Imaging in Radiography- 5109113029

Core

IMG 230	Sectional Anatomy for Advanced Imaging	3
IMG 240	Pathology for Advanced Medical Imaging Modalities	3
	Subtotal	6

Computed Tomography Track – 510911301

(Offered at HZC, SEC)

IMG 250	Computed Tomography Physics and Instrumentation	3
IMG 260	Computed Tomography Imaging Procedures	3
	Subtotal	6

Total Credits

12

Computed Tomography with Clinical Track – 510911302

(Offered at SMC, WKC)

IMG 250	Computed Tomography Physics and Instrumentation	3
IMG 260	Computed Tomography Imaging Procedures	3
IMG 285	Computed Tomography Clinical Practice I	4
	Subtotal	10

Total Credits

16

Magnetic Resonance Imaging Track – 510911303

(Offered at HZC, SEC)

IMG 255	Magnetic Resonance Physics and Instrumentation	3
IMG 265	Magnetic Resonance Imaging Technology	3
	Subtotal	6

Total Credits

12

Respiratory Care

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examinations to earn the Certified Respiratory Therapist (C.R.T.) credential and the Registered Respiratory Therapist (RRT) credential.

*Note: The Kentucky Board for Respiratory Care may deny mandatory certification for convicted felons. Questions should be directed to the Kentucky Board for Respiratory Care.

* Note: Digital literacy must be documented by competency exam or by completing a digital literacy course.

Note: Hours Exception (67-70 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Respiratory Therapist - 5109087089

(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MDC, MYC, SEC, SKY, SMC)

BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
MAT	150	College Algebra* OR	3
MAT	110	Applied Mathematics* OR	(3)
MAT	146	Contemporary College Mathematics*	(3)
		Oral Communications*	3
		Social/Behavioral Sciences *	3
ENG	101	Writing I *	3
		Heritage/Humanities*	3
		General Education Total	23

Recommended Additional Course(s)

		Medical Terminology	(3)
ENG	102	Writing II	(3)
BIO	226	Principles of Microbiology OR	(3)
BIO	225	Medical Microbiology	(4)

Technical Courses

RCP	110	Cardiopulmonary Anatomy & Physiology	3
RCP	120	Theory & Principles of Respiratory Care OR	4
RCP	122	Fundamentals of Respiratory Care#	(4)
RCP	125	Cardiopulmonary Evaluation OR	4
RCP	140	Cardiopulmonary Assessment#	(2)
RCP	130	Pharmacology OR	3
HST	121	Pharmacology**	(2)
RCP	150	Clinical Practice I OR	2
HST	101	Basic Skills I** OR	(3)
RCP	121	Respiratory Care Practice I#	(1)
RCP	175	Clinical Practice II OR	3
RCP	176	Respiratory Care Practice II#	(2)
RCP	180	Ventilatory Support AND	3
RCP	190	Advanced Ventilatory Support OR	2
RCP	185	Introduction to Mechanical Ventilation# AND	(2)
RCP	195	Patient-Ventilator System Management#	(4)
RCP	200	Clinical Practices III OR	3
RCP	201	Respiratory Care Practice III#	(2)
RCP	204	Emergency and Special Procedures AND	3

RCP	214	Advanced Diagnostic Procedures OR	3
RCP	240	Advanced Cardiopulmonary Evaluation# AND	(3)
RCP	245	Advanced Cardiac Life Support#	(2)
RCP	210	Cardiopulmonary Pathophysiology OR	3
HST	122	Clinical Pathophysiology**	(3)
RCP	212	Neonatal/Pediatric Respiratory Care	3
RCP	225	Clinical Practice IV OR	3
RCP	226	Respiratory Care Clinical Practice IV#	(4)
RCP	228	Preventive and Long Term Respiratory Care	2
RCP	250	Clinical Practice V OR	3
RCP	251	Respiratory Care Practice V#	(4)
		Elective (BCTC requires RCP 260)	0-1
		Technical Course Credit Total	47
		Technical Course Credit Total#	45
		Total Credits	68-70

*General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

RCP courses currently only offered and required at BCTC for degree completion at that college.

Certificates

Polysomnographic Technologist - 5109083069

BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
ENG	101	Writing I	3
MAT	150	College Algebra* OR	3
MAT	146	Contemporary College Mathematics* OR	(3)
MAT	110	Applied Mathematics*	(3)
AHS	115	Medical Terminology	3
		Subtotal	17

Technical Courses

PSG	100	Introduction to Polysomnography	2
PSG	110	Polysomnography Level I	3
PSG	111	Polysomnography Lab I	1
PSG	115	Polysomnography Practice I	3
PSG	130	Polysomnography Level II	3
PSG	131	Polysomnography Lab II	1
PSG	133	Pathology of Sleep and Related Disorders	3
PSG	135	Polysomnography Practice II	3
		Subtotal	19
		Total Credits	36

*General Education Course

Electrocardiographic and Cardiac Monitoring Technician - 5109083049

(Offered at BLC, BSC, ELC, JFC, SKY)

BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
MAT	150	College Algebra* OR	3
MAT	146	Contemporary College Mathematics* OR	(3)
MAT	110	Applied Mathematics*	(3)
		Technical Courses	
RCP	110	Cardiopulmonary Anatomy & Physiology	3
RCP	125	Cardiopulmonary Evaluation OR	4
RCP	140	Cardiopulmonary Assessment	(2)
RCP	150	Clinical Practice I ** OR	2
RCP	121	Respiratory Care Practice I**	(1)
HST	101	Basic Skills I**+	(3)
		Total Credits	17-21

* General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

+ In addition Twenty (20) hours of documented clinical Electrocardiographic experience or documented Electrocardiographic & Cardiac Monitoring Competence is required.

RCP courses currently only offered and required at BCTC to complete certificate.

Security Management

The Security Management Coordinator program provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, locks and locking devices, lighting, security design and surveys, contingency planning, and acts of violence. Instruction in all types of security hardware: electronic and mechanical door locks, access control systems and their devices, as well as intrusion detection systems and cameras, safes and safe hardware is available.

The Supply Chain Security program provides an overview of the needs and requirements for a safe, secure supply chain. The program looks at threats, and offers solutions. The House Select Committee on Homeland Security issued a comprehensive assessment (February 2004) on the United State's levels of preparation against terrorist activity. The Committee concluded in part "Pathways to the United States by land, sea and air are insecure." Security throughout transportation, storage, shipping and receiving of cargo is addressed in this program. The concept of proactive versus reactive, planning and the overall needs of a security operation are discussed. Specific security systems are discussed, as well as the creation and implementation of security policies. Basic security equipment and procedures, including perimeter protection, intrusion detection, security surveys and CCTV systems are covered, as well as management issues to include terrorism, crisis management and basic guard force management. A Security Design section of the program looks at ways to maximize the security benefit within operational (financial and aesthetic) constraints.

The Antiterrorism Physical Security Specialist program provides a comprehensive overview of a physical security program. Topics covered are access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/security audits; managing a security operation; IT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

The Safe & Lock Technician program provides a comprehensive hands-on knowledge of safes and locks. This program will provide the technician with the training to service, maintain and troubleshoot safes and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

Certificates

Security Management Coordinator - 4301123010

(Offered at BLC)

LSI	120	Comprehensive Security Specialist	4
LSI	140	Managing Terrorism & Other Crises	1
LSI	150	Professional Locksmithing	4
		Electives	3
		Total Credits	12

Electives: A minimum of 3 credit hours must be taken from this list of electives:

LSI	100	Fundamental Principles of Physical Security	2
LSI	105	Force Protection	3
LSI	110	Security Surveys	2
LSI	115	Command Security Officer Training	4
LSI	130	GSA: Locks, Vaults & Containers	4
LSI	131	GSA: Locks, Vaults & Containers Certified Inspector Training	1
LSI	151	Basic Safe Penetration	1
LSI	152	Combination Lock Manipulation	1
LSI	153	Safe Lock Servicing - Mechanical and Electronic	2
LSI	160	Fundamentals of Electricity	2
LSI	170	Electronic Access Control	2
LSI	180	Security and Crime Prevention Management	1
LSI	185	Security and Crime Prevention Countermeasures	1
LSI	190	Security Hardware & Bypass Techniques	1
LSI	195	Tactical Lock (restricted enrollment)	8

Safe & Lock Technician - 4301123040

LSI	150	Professional Industrial Locksmithing	4
LSI	153	Safe Lock Servicing	2
		Electives	10
		Total Credits	16

Electives: A minimum of 10 credit hours must be taken from this list of electives.

LSI	110	Security Surveys	2
LSI	130	GSA: Lock, Vault & Container	4
LSI	151	Basic Safe Penetration	1
LSI	152	Combination Lock Manipulation	1
LSI	160	Fundamentals of Electricity	2
LSI	170	Electronic Access Control	2
LSI	182	Managing Security Operations	2

Social Media Marketing

The Social Media Marketing program will provide students who are interested in social media technology, and the specific way it can be utilized for maximizing visibility and functionality within the business sector, a holistic approach to running a social media marketing campaign. This program will provide not only an introduction to social media technology, but also a foundation for students to learn everything from terminology to multi-platform engagement techniques.

Certificate

Social Media Marketing -1110053009

(Offered at ELC, MDC, SEC)

General Education Courses

BAS	125	Social Media Marketing: Fundamental Concepts, Skills and Strategies	3
BAS	126	Social Media Marketing: Project Management and Implementation Strategies	3
		Subtotal	6

Surgical First Assisting

The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of "C" in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

Associate in Applied Science

Surgical First Assisting - 5109097039

(Offered at MDC)

BIO 135	Basic Anatomy and Physiology with Laboratory	4
ENG 101	Writing I	3
MAT 150	College Algebra OR	3
MAT 110	Applied Mathematics	(3)
	Heritage/Humanities	3
	Social/Behavioral Sciences course	3
	Subtotal	16

Technical Courses:

	Digital Literacy	0-3
SUR 110	Surgical Technology Fundamentals	9
SUR 101	Surgical Technology Fundamentals/Lab	1
SUR 130	Principles of Surgical Pharmacology	2
SUR 200	Surgical Technology Advanced Theory	9
SUR 201	Surgical Technology Skills Practicum II	6
SUR 275	Surgical Technology Advanced Clinical Practicum	2
SUR 280	Surgical Anatomy	5
SUR 284	Principles of Surgical Assisting	3
SUR 295	Surgical First Assistant Clinical	1
SUR 282	Perioperative Bioscience	3
SUR 296	Surgical First Assistant Practicum	3
SUR 297	Surgical First Assistant Practicum II	1
	Subtotal	45-48
	Total Credit Hours	61-64

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

For program admission, CPR or BLS certificate must be obtained prior to enrolling in the course; certification must be kept current throughout the program.

NOTE: BIO 137 & BIO 139 may be substituted for BIO 135.

Certificate

Surgical First Assisting - 5109093020

(Offered at MDC)

SUR 280	Surgical Anatomy	5
SUR 282	Perioperative Bioscience	3
SUR 284	Principles of Surgical Assisting	3
SUR 295	Surgical First Assistant Clinical	1
SUR 296	Surgical First Assistant Practicum	3
SUR 297	Surgical First Assistant Practicum II	1
	Total Credit Hours	16

CPR or BLS certificate must also be obtained prior to enrolling in the program; certification must be kept current throughout the program.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certificate/licensure.

Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of "C" in each course required for the credential. Students who withdraw from or earn less than a "C" in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Providers) course must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology program.

Students who have completed program requirements must sit for the certifying examination offered by the National Board on Certification for Surgical Technology and Surgical Assisting (NBSTSA), 6 West Dry Creek Circle, Suite 100; Littleton, CO 80120; Phone: (800) 707 0057; www.nbsta.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N, Suite 158, Clearwater Florida 33763; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org. Ashland Community and Technical College Bluegrass Community and Technical College, Hazard Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Owens-

boro Community and Technical College, Somerset Community College, Southcentral Kentucky Community and Technical College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

Associate in Applied Science

Surgical Technology - 5109097019

(Offered at BLC, BSC, HPC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

General Education:

BIO 137	Human Anatomy & Physiology I AND	4
BIO 139	Human Anatomy & Physiology II	4
MAT 110	Applied Mathematics OR	3
MAT 150	College Algebra OR	(3)
	Higher level Quantitative Reasoning Course	(3)
ENG 101	Writing I	3
	Social/Behavioral Sciences	3
	Heritage/Humanities	3
	Subtotal	20

Technical Courses:

	Digital Literacy	0-3
CLA 131	Medical Terminology from Greek & Latin OR	3
AHS 115	Medical Terminology OR	(3)
MIT 103	Medical Office Terminology	(3)
SUR 100	Surgical Technology Fundamentals/Theory OR	12
SUR 109	Introduction to Surgical Technology AND	(3)
SUR 110	Surgical Technology Fundamentals	(9)
BIO 225	Medical Microbiology OR	4
BIO 226	Principles of Microbiology OR	(3)
BIO 227	Principles of Microbiology with Laboratory OR	(5)
BIO 118	Microbes and Society	(3)
SUR 101	Surgical Technology Fundamentals Lab	1
SUR 130	Principles of Surgical Pharmacology	2
SUR 200	Surgical Technology Advanced Theory	9

A total of 10 credit hours must be completed from the following practicum courses:

SUR 125	Surgical Technology Skills Practicum I	2-3
SUR 201	Surgical Technology Skills Practicum II	6-7
SUR 275	Surgical Technology Advanced Clinical Practicum	2
	Subtotal	40-45

Total Credits 60-65

Elective(s):

SUR 103	Surgical Technology Didactic Practicum	(1)
SUR 270	Pathophysiology for Surgical Technology OR	(2)
MAI 200	Pathophysiology for Medical Assistants	(3)
BAS 120	Personal Finance	(3)
MNA 100	Medicaid Nurse Aide OR	(3)
NAA 100	Nursing Assistant Skills I	(3)

Note:

CPR certificate must be obtained prior to enrolling in the first Surgical Technology skills practicum course and must remain current throughout the Surgical Technology Program.

Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Diploma

Surgical Technologist - 5109094019

(Offered at ASC, BSC, JFC, MDC, OWC, SEC)

General Education:

Area 1 =		
ENG 101	Writing I	3
Area 2 =		
BIO 135	Basic Anatomy & Physiology with Lab OR	4
BIO 137	Human Anatomy & Physiology I AND	(4)
BIO 139	Human Anatomy & Physiology II OR	(4)
	Subtotal	7-11

Technical Courses:

	Digital Literacy course or demonstrated competency	0-3
CLA 131	Medical Terminology from Greek & Latin OR	3
AHS 115	Medical Terminology OR	(3)
MIT 103	Medical Office Terminology	(3)
SUR 109	Introduction to Surgical Technology AND	(3)
SUR 110	Surgical Technology Fundamentals OR	(9)
SUR 100	Surgical Technology Fundamentals/Theory AND	12
BIO 225	Medical Microbiology OR	4
BIO 226	Principles of Microbiology OR	(3)
BIO 227	Principles of Microbiology with Laboratory OR	(5)
BIO 118	Microbes and Society	(3)
SUR 101	Surgical Technology Fundamentals Lab	1
SUR 130	Principles of Surgical Pharmacology	2
SUR 200	Surgical Technology Advanced Theory	9
WPP 200	Workplace Principles OR	3
BAS 250	Business Employability Seminar	(1)

A total of 10 credit hours must be completed from the following practicum courses:

SUR 125	Surgical Technology Skills Practicum I	2-3
SUR 201	Surgical Technology Skills Practicum II	6-7
SUR 275	Surgical Technology Advanced Clinical Practicum	2
	Subtotal	38-48

Total Credits 45-59

Elective(s):

SUR 103	Surgical Technology Didactic Practicum	(1)
SUR 270	Pathophysiology for the Surgical Technologist OR	(2)
MAI 200	Pathophysiology for the Medical Assistant	(3)
EFM 100	Personal Financial Management OR	(3)
BAS 120	Personal Finance	(3)
MNA 100	Medicaid Nurse Aide OR	(3)
NAA 100	Nursing Assistant Skills I	(3)

Note:

CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

Certificates

Surgical Technology Bridge Program - 5109093019

STN 100	Surgical Technology Fundamentals for Nurses	7
STN 101	Surgical Technology Lab for Nurses	1
STN 102	Surgical Technology Clinical for Nurses	6
STN 110	Surgical Technology Procedures for Nursing	4
	Total Credit Hours	18

Surveying and Mapping Technology

The curriculum is arranged for students to gain employment in surveying and mapping. It allows students to gain the educational requirements to sit for the licensing exams in the state of Kentucky. Classes emphasize solving problems encountered in the field of Surveying & Mapping Technology. Students perform routine topographical, boundary and other mapping / surveying projects, as well as Global Positioning (GPS) surveys. Students establish essential data, keep notes, develop preliminary sketches, and prepare working drawings, profile and section maps, volume calculations, and topographic maps. Students use computer mapping and coordinate geometry software to accomplish these tasks.

Associate in Applied Science

Surveying and Mapping Technology - 1511027029

(Offered at BSC)

ENG	101	Writing I	3
		Humanities	3
MAT	116	Technical Mathematics or	3
		Higher Level Quantitative Reasoning Course	(3)
		Natural Sciences	3
		Social/Behavioral Sciences	3
		Subtotal	15

Required Technical Courses

		Computer/Digital Literacy	3
COM	181	Basic Public Speaking	3
SMT	110	Principles of Surveying	3
SMT	130	Land Surveying Graphics	3
SMT	160	Construction Surveying	3
SMT	210	Advanced Surveying Measurement	3
SMT	220	Surveying Lab	3
SMT	230	Land Boundary Location	3
SMT	250	Mine Surveying	3
SMT	270	Professional Ethics and Conduct for Land Surveyors.....	3
SMT	290	Boundary Lab	3
		Technical Electives Approved by Program Coordinator.....	12
		Subtotal	45
		AAS Total	60

Diploma

Surveying Technician III - 1511024019

(Offered at BSC)

Required General Education

ENG	101	Writing I	3
MAT	116	Technical Mathematics	3
		Subtotal	6

Required Technical Courses

		Computer/Digital Literacy	3
COM	181	Basic Public Speaking	3
SMT	110	Principles of Surveying	3
SMT	130	Land Surveying Graphics	3
SMT	160	Construction Surveying	3
SMT	210	Advanced Surveying Measurement	3
SMT	220	Surveying Lab	3
SMT	230	Land Boundary Location	3
		Technical Electives Approved by Program Coordinator.....	9
		Subtotal	33
		Diploma Total	39

Certificate

Surveying Technician II - 1511023029

(Offered at BSC, HZC, SEC)

		Computer/Digital Literacy	3
SMT	110	Principles of Surveying	3
SMT	130	Land Surveying Graphics	3
		Technical Electives Approved by Program Coordinator.....	3
		Certificate Total	12

Surveying Technician I - 1511023019

(Offered at BSC, HZC, SEC)

		Computer/Digital Literacy	3
SMT	110	Principles of Surveying, or	3
SMT	130	Land Surveying Graphics	(3)
		Certificate Total	6

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

Certificates

Technical Theatre - 5005013019

(Offered at OWC)

General Education Courses

THA	101	Introduction to Theatre: Principles and Practice	3
COM	181	Basic Public Speaking (OR)	3
COM	252	Intro to Interpersonal Communication (OR).....	(3)
ENG	101	Writing I	(3)
		Technical Core	
THA	150	Fundamentals of Production	3
THA	250	Stage Electrics	3
THA	260	Stagecraft	3
THA	141	Costuming and Make-up for the Stage	3

Technical Electives (Select one of the following)

ART	113	3-Dimensional Design	3
ELT	110	Circuits I	5
DFT	102	Drafting Fundamentals	4
WLD	152	Basic Welding B	5
CAR	126/127	Introduction to Construction/Intro to Construction Lab ..	3/1
THA	192	Production Practicum.....	1
		Other courses as approved by the program coordinator	
		Total	19-24

Telehealth Technician Associate

Telemedicine is the provision of health care over a distance. This occurs through live interactive (synchronous) and store and forward (asynchronous) telemedicine using high-speed communication links, videoconferencing equipment and other communication devices, medical peripheral devices such as electronic stethoscopes to facilitate secure connectivity between patients and providers.

Certificate

Telehealth Technician Associate - 5107073069

(Offered at HZC)

HST	102	Health Care Delivery and Management	3
HST	103	Health Care Communications	2

HST	104	Health Care Basic Skills with Clinical	3.5
AHS	115	Medical Terminology	3
TEL	200	Telehealth Patient Care	4.5
Total Credits			16

Truck Driver Training

Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

Certificates

Tractor Trailer, CDLA I - 4902053010

(Offered at BSC, GTW, HPC, HZC, SMC, WKC)

TRU	100	Truck Driving	6
Total Credits			6

Tractor Trailer, CDLA II - 4902053029

(Offered at JFC)

TNT	110	Basic Operations	3
TNT	120	Safe Operating Practices	3
TNT	210	Advanced Operating Practices	1
TNT	220	Vehicle Systems and Reporting Malfunction	3
TNT	250	Internship	4
Total Credits			14

Tractor Trailer, CDLA III - 4902053039

(Offered at BSC)

TRK	110	Driver Preparation	3
TRK	120	Trucking Safety	3
TRK	130	Instrumentation	3
TRK	140	Systems Check	1
TRK	150	CDL Training	3
TRK	160	Combined Driving	2
TRK	216	Advanced Driver Preparation	1
TRK	220	Advanced Trucking Safety	3
TRK	230	Advanced Controls	1
TRK	240	System Inspections	1
TRK	250	Advanced CDL Preparation	1
TRK	260	Advanced Combined Driving	2
Total Credits			24

Veterinary Technology

The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinary technician. Areas of study include anatomy, physiology, microbiology, clinical techniques, office and hospital procedures, client relations and communication, pharmacology, anesthesiology, surgical and medical nursing, radiology and clinical pathology training. The Veterinary Technology program will provide students with "real world" clinical and lab experiences to develop the skills needed to become a valued professional in the field.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2013.

Associate in Applied Science

Veterinary Technology - 5108087019

(Offered at OWC)

General Education

ENG	101	Writing I	3
PHI	110	Medical Ethics	3
MAT	110	Technical Mathematics OR	3
MAT	150	College Algebra	(3)
BIO	112	Introduction to Biology	3
BIO	113	Introduction to Biology Lab	1
		Social/Behavioral Sciences	3
COM	252	Introduction to Interpersonal Communication	3
Subtotal			19

Required Technical Courses

		Digital Literacy	0-3
AGR	240	Introduction to Animal Science	3
AGR	280	Livestock Management	3
VET	110	Introduction to Veterinary Technology	5
VET	112	Veterinary Microbiology	4
VET	114	Animal Anatomy & Physiology	5
VET	120	Clinical Practicum I	2
VET	130	Veterinary Lab Procedures I	5
VET	210	Pharmacology	3
VET	220	Parasitology and Clinical Lab Techniques	5
VET	230	Veterinary Lab Procedures II	5
VET	240	Veterinary Lab Procedures III	5
VET	250	Clinical Practicum II	5
Subtotal			50-53
AAS Total			69-72

Visual Communication

Five programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, Printing, and Visual Arts.

Visual Communication: Communication Arts Technology

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student's specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

Employment of graphic designers, photographers, web designers, videographers, and video editors is expected to grow as demand for their products continues to increase from advertisers, publishers, video production studios, and computer design firms. Graduates may be employed as graphic designers at newspapers, print shops, advertising agencies,

photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with "C" (2.0) or greater to advance in Visual Communication programs.

Associate in Applied Science

Communication Arts Technology - 5004067019

(Offered at JFC)

General Education Requirements

ENG 101	Writing I	3
ART 106	Renaissance Through Modern Art History	3
MAT 110	Applied Mathematics OR	3
MAT 146	Contemporary College Mathematics OR	(3)
MAT 150	College Algebra	(3)
	Social/Behavioral Sciences	3
	Natural Sciences	3
	Total General Education Requirements	15

Core Communication Art Courses

VCC 150	Mac Basics OR any Computer/Digital Literacy equivalent*0-3	
VCC 100	Introduction to Visual Communication	3
ART 110	Drawing I	3
VCA 132	Illustration for Advertising	3
VCA 170	Advertising Design I.....	3
VCA 171	Advertising Design II.....	3
VCA 160	Commercial Photography I	3
VCA 161	Commercial Photography II	3
VCC 166	Photoshop Basics.....	3
	Subtotal	24-27

Total Core Communication Arts Courses

& Gen Ed 39-42

Advertising Design Track - 500406701

(Offered at JFC)

VCA 106	Creative Typographic Design	3
VCM 115	2-D Animation	3
VCM 220	Webpage Design	3
VCA 270	Advertising Design III.....	4
VCA 271	Advertising Design IV	4
VCA 290	Folio Seminar.....	3
VCA 298	Practicum	4
	Subtotal	24

Total Credit Hours for Advertising Design Track

63-66

Commercial Photography Track - 500406702

(Offered at JFC)

VCC 266	Advanced Photoshop	3
VCM 115	2-D Animation	3
VCM 220	Webpage Design	3
VCA 260	Commercial Photography III	4
VCA 261	Commercial Photography IV	4
VCA 290	Folio Seminar.....	3
VCA 298	Practicum	4
	Subtotal	24

Total Credit Hours for

Commercial Photography Track 63-66

Digital Filmmaking Track - 500406703

(Offered at JFC)

ENG 207	Beginning Workshop in Imaginative Writing: Scriptwriting ...	3
MUS 120	Music Technology I	3

THA 126	Acting I: Fundamentals of Acting	3
VCA 151	Digital Filmmaking I	3
VCA 152	Digital Filmmaking II	3
VCA 251	Digital Filmmaking III	3
VCA 252	Digital Filmmaking IV	3
VCA 290	Folio Seminar.....	3
VCA 298	Practicum	2
	Subtotal	26

Total Credit Hours for Digital Filmmaking Track 65-68

Webpage Design Track -500406704

(Offered at JFC)

VCC 205	Introduction to HTML OR	3
CIT 155	Web Page Development	(3)
VCM 220	Webpage Design	3
IMD 180	Intermediate Web Design	3
VCM 115	2D Animation	3
VCM 230	Advanced Webpage Design.....	3
CIT 140	JavaScript I	3
VCA 290	Folio Seminar.....	3
VCA 298	Practicum	4
	Subtotal	25

Total Credit Hours for Webpage Design Track 64-67

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.

Certificates

Multimedia Certificate in Communication Arts - 5004063039

(Offered at JFC)

Technical or Support Courses

VCC 150	Mac Basics OR Computer/Digital Literacy Equivalent* ...	0-3
VCA 170	Advertising Design I.....	3
VCA 160	Commercial Photography I	3
VCA 171	Advertising Design II.....	3
VCM 115	2-D Animation	3
VCC 166	Photoshop Basics.....	3
VCM 220	Webpage Design	3

Total Credits for MM Certificate in Communication Arts

18-21

Visual Communication: Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to drawing, design concepts, and computer graphics. In addition to core courses, students will take specialty courses for their selected option. Students may also choose to receive a certificate in digital photography.

The Graphic Design option emphasizes several aspects of graphic design and focuses on the development of creativity and software skills necessary to be competitive in the field.

The Mixed Media Design option provides students with a mix of any courses within the visual communication program or approved electives that serves the interests and skills of the student.

The Production Design option provides students training in the operation of various print production and graphic production equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Design & Technology – 5004097019

(Offered at BSC)

General Education Requirements

MAT	110	Applied Mathematics OR	3
		Higher Level Quantitative Reasoning	(3)
		Natural Sciences	3
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
ENG	101	Writing I	3
		Total General Education Requirements	15

Required Technical Core:

		Digital Literacy	0-3
VCC	100	Introduction to Visual Communication	3
VCC	106	Typography	3
VCA	105	Drawing Concepts OR	3
ART	110	Drawing I	(3)
VCA	108	Color Theory	3
VCC	110	Design Concepts	3
VCC	125	Computer Graphics I	3
VCA	280	Professional Portfolio Development	3
VCC	297	Internship OR	3
VCC	298	Practicum OR	(3)
COE	199	Cooperative Education	(3)
		Subtotal	24-27

Graphic Design Track – 500409701

(Offered at BSC)

VCC	260	Computer Graphics II	3
VCC	235	Graphic Design I	3
VCC	245	Graphic Design II	3
VCC	255	Emerging Media Design OR	3
		Approved Technical Elective	(3)
		Approved Technical Electives*	12
		Subtotal	24

Total Credit Hours for AAS Graphic Design Track 63-66

Mixed Media Design Track – 500409705

(Offered at BSC)

		Approved Technical Electives*	24
		Subtotal	24

Total Credit Hours for AAS Interactive Design Track 63-66

Production Design Track – 500409703

(Offered at BSC)

VCC	214	Production Design I	3
VCC	216	Production Design II	3
VCC	218	Production Design III	3

Approved Technical Electives*	15
Subtotal	24

Total Credits for AAS Production Design Track 63-66

*Approved Technical Electives include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

Diplomas

Graphic Design - 5004094059

(Offered at BSC)

Required General Education

Written Communication OR	3
Oral Communications OR	(3)
Humanities/Heritage	(3)
Quantitative Reasoning OR	3
Natural Sciences OR	(3)
Social/Behavioral Sciences	(3)
Subtotal	6

Required Technical Core:

		Digital Literacy	0-3
VCC	100	Introduction to Visual Communication	3
VCC	106	Typography	3
VCA	105	Drawing Concepts OR	3
ART	110	Drawing I	(3)
VCA	108	Color Theory	3
VCC	110	Design Concepts	3
VCC	125	Computer Graphics I	3
VCA	280	Professional Portfolio Development	3
VCC	297	Internship OR	3
VCC	298	Practicum OR	(3)
COE	199	Cooperative Education	(3)
		Subtotal	24-27

Graphic Design Track – 500409401

(Offered at BSC)

VCC	260	Computer Graphics II	3
VCC	235	Graphic Design I	3
VCC	245	Graphic Design II	3
VCC	255	Emerging Media Design OR	3
		Approved Technical Elective	(3)
		Approved Technical Electives*	12
		Subtotal	24

Total Credits for Graphic Design Track Diploma 54-57

Mixed Media Design Track – 500409402

(Offered at BSC)

		Approved Technical Electives*	24
		Subtotal	24

Total Credits for Mixed Media Design Track Diploma 54-57

Production Design Track – 500409403

(Offered at BSC)

VCC	214	Production Design I	3
VCC	216	Production Design II	3
VCC	218	Production Design III	3
		Approved Technical Electives*	15
		Subtotal	24

Total Credits for Production Design Track Diploma 54-57

*Approved Technical Electives include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

Certificates

Design Assistant – 5004093019

(Offered at BSC)

VCC 100	Introduction to Visual Communication	3
VCC 106	Typography	3
VCA 105	Drawing Concepts OR	3
ART 110	Drawing I	(3)
VCA 108	Color Theory	3
VCC 110	Design Concepts	3
VCC 125	Computer Graphics I.....	3
Total Credits for Design Assistant Certificate		18

Digital Photography – 5004093069

(Offered at BSC, SMC)

VCA 108	Color Theory	3
VCA 120	Digital Photography I	3
VCC 166	Photoshop Basics	3
VCA 131	Digital Photography II OR	3
VCC 266	Advanced Photoshop	(3)
Total Credits for Digital Photography Certificate		12

Mixed Media Design Assistant – 5004093099

(Offered at BSC)

VCC 100	Introduction to Visual Communication	3
VCC 110	Design Concepts	3
VCC 125	Computer Graphics I.....	3
Approved Technical Electives*.....		9
Total Credits for Mixed Media Design Assistant Certificate		18

Production Design Assistant – 5004093109

(Offered at BSC, WKC)

VCC 100	Introduction to Visual Communication	3
VCC 110	Design Concepts	3
VCC 125	Computer Graphics I.....	3
VCC 214	Production Design I OR.....	3
VCC 216	Production Design II OR.....	(3)
VCC 218	Production Design III	(3)
Total Credits for Production Design Assistant Certificate		12

*Approved Technical Electives include any VCA, VCC, or VCM courses, and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

Visual Communication: Multimedia

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with “C” (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Multimedia - 1003047019

(Offered at HZC, SMC, WKC)

General Education Requirements:

	Quantitative Reasoning	3
	Natural Sciences	3
	Social/Behavioral Sciences	3
	Heritage/Humanities	3
ENG 101	Writing I	3
Subtotal		15

Technical Core

VCC 100	Introduction to Visual Communication	3
VCC 106	Typography	3
VCA 108	Color Theory	3
VCC 110	Design Concepts	3
VCC 125	Computer Graphics I.....	3
VCC 150	Mac Basics or	3
Digital Literacy course		(3)
VCC 166	Photoshop Basics	3
VCC 200	Computer Illustration	3
VCC 270	Acrobat Basics	3
VCA 280	Professional Portfolio Development	3
VCC 297	Internship OR	3
VCC 298	Practicum OR	(3)
COE 199	Cooperative Education	3
Subtotal		33

Animation Track - 100304701

(Offered at)

VCC 255	Emerging Media Design	3
VCM 115	2-D Animation	3
VCM 210	3-D Animation	3
VCM 215	After Effects	3
VCM 225	Advanced 3-D Animation	3
Approved Technical Electives		3
Subtotal		18

Total Credits for AAS: Multimedia - Animation Track

66

Web Design Track - 100304702

(Offered at HZC, WKC)

VCC 255	Emerging Media Design	3
VCM 115	2-D Animation	3
VCM 220	Webpage Design	3
VCM 230	Advanced Webpage Design.....	3
Approved Technical Electives		6
Subtotal		18

Total Credits for AAS: Multimedia - Web Design Track

66

Digital Design Track - 100304703

(Offered at SMC, WKC)

VCC 210	Advanced Computer Illustration.....	3
VCC 220	InDesign Basics.....	3
VCC 266	Advanced Photoshop	3
Approved Technical Electives		9
Subtotal		18

Total Credits for AAS: Multimedia - Digital Design Track

66

Video Production Track - 100304705

(Offered at HZC,WKC)

VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	125	Foundations of Video Production	3
VCM	140	Digital Video	3
VCM	215	After Effects	3
VCM	240	Advanced Digital Video	3
Subtotal			18

Total Credits for AAS: Multimedia - Video Production Track 66

Multimedia Track – 100304706

(Offered at HZC,WKC)

VCC	220	InDesign Basics	3
VCC	266	Advanced Photoshop	3
VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	140	Digital Video	3
VCM	220	Webpage Design	3
Subtotal			18

Total Credits for AAS: Multimedia – Multimedia Track 66

Diploma

Multimedia - 1003044019

(Offered at WKC)

General Education Requirements \

Written Communication OR	3
Oral Communications OR	(3)
Humanities/Heritage	(3)
Quantitative Reasoning OR	3
Natural Sciences OR	(3)
Social/Behavioral Sciences	(3)
Subtotal	6

Technical or Support Courses

VCC	100	Introduction to Visual Communication	3
VCC	106	Typography	3
VCA	108	Color Theory	3
VCC	110	Design Concepts	3
VCC	125	Introduction to Computer Graphics	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3
VCC	270	Acrobat Basics	3
VCA	280	Professional Portfolio Development	3
VCC	297	Internship OR	(3)
VCC	298	Practicum	(3)
COE	199	Cooperative Education OR	3
Subtotal			33

Animation Track - 100304403

(Offered at)

VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	210	3-D Animation	3
VCM	215	After Effects	3
VCM	225	Advanced 3-D Animation	3
		Technical Elective	3
Subtotal			18

Total for Animation Track 57

Web Design Track - 100304402

(Offered at WKC)

VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	220	Webpage Design	3
VCM	230	Advanced Webpage Design	3
Approved Technical Electives			6
Subtotal			18

Total for Web Design Track 57

Digital Design Track - 100304404

(Offered at SMC,WKC)

VCC	210	Advanced Computer Illustration	3
VCC	220	InDesign Basics	3
VCC	266	Advanced Photoshop	3
Approved Technical Electives			9
Subtotal			18

Total for Digital Design Diploma 57

Video Production Track - 100304406

(Offered at WKC)

VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	125	Foundations of Video Production	3
VCM	140	Digital Video	3
VCM	215	After Effects	3
VCM	240	Advanced Digital Video	3
Subtotal			18

Total for Audio/Video Track 57

Multimedia Track - 100304401

(Offered at SMC,WKC)

VCC	220	InDesign Basics	3
VCC	266	Advanced Photoshop	3
VCC	255	Emerging Media Design	3
VCM	115	2-D Animation	3
VCM	140	Digital Video	3
VCM	220	Webpage Design	3
Subtotal			18

Total Credits for Multimedia Track 57

Certificates

Animation - 1003043029

(Offered at JFC, SMC)

VCC	100	Introduction to Visual Communication	3
VCC	106	Typography	3
VCA	108	Color Theory	3
VCC	110	Design Concepts	3
VCC	125	Computer Graphics I	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCM	115	2-D Animation	3
VCM	210	3-D Animation	3
VCM	215	After Effects	3
Total			30

Web Design - 1003043039

(Offered at BSC, HZC, JFC, SMC, WKC)

VCC	100	Introduction to Visual Communication	3
VCC	110	Design Concepts	3
VCC	106	Typography	3
VCA	108	Color Theory	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3
VCM	115	2-D Animation	3
VCM	220	Webpage Design	3
VCM	230	Advanced Webpage Design	3
		Total	30

Digital Design - 1003043059

(Offered at SMC, WKC)

VCC	100	Introduction to Visual Communication	3
VCC	110	Design Concepts	3
VCC	1063	Typography	3
VCA	108	Color Theory	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3
VCC	220	InDesign Basics	3
		Approved Technical Electives	6
		Total	30

Video Production- 1003043069

(Offered at HZC, WKC)

VCC	100	Introduction to Visual Communication	3
VCC	110	Design Concepts	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCM	115	2-D Animation	3
VCM	125	Foundations of Video Production	3
VCM	140	Digital Video	3
VCM	215	After Effects	3
VCM	240	Advanced Digital Video	3
		Approved Technical Elective	3
		Total	30

Multimedia - 1003043019

(Offered at HZC, JFC, WKC)

VCA	108	Color Theory	3
VCC	100	Introduction to Visual Communication	3
VCC	110	Design Concepts	3
VCC	125	Introduction to Computer Graphics	3
VCC	150	Mac Basics OR	3
		Digital Literacy course	(3)
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3
VCM	115	2-D Animation	3
VCM	140	Digital Video	3
VCM	220	Webpage Design	3
		Total	30

Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Digital Production Artist curriculum emphasizes technical competence to better prepare students for successful careers in designing and preparing artwork for the print media. Laboratory experiences in page layout, computer illustration, photo imaging, and PDF files are combined with foundation courses in design. All technical courses must be completed with 'C' (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Printing - 1003017019

General Education Requirements

MAT	110	Applied Mathematics OR	3
		Higher Level Quantitative Reasoning	(3)
		Natural Sciences	3
		Social/Behavioral Sciences	3
		Heritage/Humanities	3
ENG	101	Writing I	3
		Subtotal	15

Required Core:

		Digital Literacy	0-3
VCA	108	Digital Color Theory	3
VCA	120	Digital Photography	3
VCC	100	Introduction to Visual Communication	3
VCC	105	Fundamentals of Typography	3
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3
VCC	220	InDesign Basics	3
VCC	230	Advanced InDesign Basics	3
VCC	266	Advanced Photoshop	3
VCC	270	Acrobat Basics	3
VCP	285	Electronic Prepress	3
COE	199	Cooperative Education OR	3
VCC	297	Internship OR	(3)
VCC	298	Practicum	(3)
		Instructor Approved Electives	9
		Subtotal	45-48

Total for AAS Visual Communication:

Printing-Digital Production Artist	60-63
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Diplomas

Digital Production Artist - 1003014019

(Offered at BSC, JFC, SMC)

General Education Requirements

		Written Communication OR	3
		Oral Communications OR	(3)
		Humanities/Heritage	(3)
		Quantitative Reasoning OR	3
		Natural Sciences	(3)
		Social/Behavioral Sciences	(3)
		Subtotal	6

Technical or Support Courses

		Digital Literacy	0-3
VCA	108	Digital Color Theory	3
VCA	120	Digital Photography	3
VCC	100	Introduction to Visual Communication	3
VCC	105	Fundamentals of Typography	3
VCC	166	Photoshop Basics	3
VCC	200	Computer Illustration	3

VCC 220	InDesign Basics.....	3
VCC 230	Advanced InDesign.....	3
VCC 266	Advanced Photoshop.....	3
VCC 270	Acrobat Basics.....	3
VCP 285	Electronic Prepress.....	3
COE 199	Cooperative Education OR.....	3
VCC 297	Internship OR.....	(3)
VCC 298	Practicum.....	(3)
	Approved Electives.....	6
	Subtotal	42-45
	Total for Digital Production Artist Diploma	48-51

Certificates

Digital Production Assistant - 1003013019

(Offered at BSC, JFC, SMC, WKC)

Technical or Support Courses

VCC 100	Introduction to Visual Communication.....	3
VCC 105	Fundamentals of Typography and Design.....	3
VCC 166	Photoshop Basics.....	3
VCC 220	InDesign Basics.....	3
	Approved Elective.....	3
	Total	15

Digital Imaging Assistant - 1003013059

(Offered at BSC, SMC)

Technical or Support Courses

VCC 166	Photoshop Basics.....	3
VCA 120	Digital Photography.....	3
	Approved Electives.....	6
	Total	12

Visual Communication: Visual Arts

Students desiring certificates in two-dimensional arts (such as painting or photography), or three-dimensional arts (such as sculpture or ceramics), may select this avenue and/or may participate in the full degree concurrently. The certificates are designed to meet the needs of the many non-traditional and part-time students and artisans of Kentucky. The certificate option will also help introduce the program to students who are not immediately willing to commit to a degree program but whom still desire professional training in the visual arts.

Certificates

2-Dimensional Studies - 5007063019

(Offered at JFC)

ART 110	Drawing I.....	3
ART 112	2-Dimensional Design.....	3
ART 105	Ancient through Medieval Art History OR.....	3
ART 106	Renaissance through Modern Art History OR.....	3
	Approved Art History Course	
	2-Dimensional Art Electives.....	9
	Total 2-Dimensional Studies Certificate	18

3-Dimensional Studies - 5007063029

(Offered at JFC)

ART 110	Drawing I.....	3
ART 113	3-Dimensional Design.....	3
ART 105	Ancient through Medieval Art History OR.....	3
ART 106	Renaissance through Modern Art History OR.....	3
	Approved Art History Course	
	3-Dimensional Art Electives.....	9
	Total 3-Dimensional Studies Certificate	18

Volumetric Medical Imaging

The Volumetric Medical Imaging (VMI) Certificate is designed for students who are certified radiologic technologists. Students will learn to identify anatomical features in cross section and volume, reconstruct volumetric data from 2D radiological data, recognize pathologic anatomy and manipulate volumes for physicians to review. Graduates will be qualified to seek employment in radiology departments of hospitals or with private companies who contract this service. Academic Program Coordinator permission is required to enter the certificate program. Prerequisites: Basic computer literacy, such as CIS 100 or equivalent, BIO 137, 139.

Certificate

Volumetric Medical Imaging - 5109113019

BIO 137	Human Anatomy and Physiology I*.....	4
BIO 139	Human Anatomy and Physiology II*.....	4
VMI 200	Sectional Anatomy & Pathology I.....	4
VMI 201	Sectional Anatomy & Pathology II.....	4
VMI 210	Volumetric Medical Imaging I.....	4
VMI 211	Volumetric Medical Imaging II.....	4
	Total Credits	24

*BIO 137&139 must have been completed within the last 10 years.

Welding Technology

The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

Associate in Applied Science

Welding Technology - 4805087019

(Offered at BLC, BSC, ELC, JFC, OWC, SKY)

ENG 101	Writing I.....	3
MAT 110	Applied Mathematics OR.....	3
MAT 116	Technical Mathematics OR.....	(3)
MAT 146	Contemporary College Mathematics OR.....	(3)
MAT 150	College Algebra OR.....	(3)
MA 109	College Algebra.....	(3)
	Heritage/Humanities.....	3
	Natural Sciences OR.....	3
	Recommended courses of:	
PHY 151	Introductory Physics I AND.....	(3)
PHY 161	Introductory Physics Lab I.....	(1)
PSY 110	General Psychology OR.....	3
SOC 101	Introduction to Sociology.....	(3)
COM 252	Introduction to Interpersonal Communication OR.....	3
COM 181	Basic Public Speaking.....	(3)
	General Education Total Credits	18-19

Required

	Computer/Digital Literacy	0-3
WLD 100	Oxy-Fuel Systems OR	2
WLD 110	Cutting Processes	(2)
WLD 101	Oxy-Fuel Systems Lab OR	2
WLD 111	Cutting Processes Lab	(3)
WLD 120	Shielded Metal Arc Welding (SMAW)	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab	3
WLD 123	Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR	3
WLD 225	Shielded Metal Arc Welding (SMAW) Open Groove Lab	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW)	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab	3
WLD 133	Gas Tungsten Arc Welding (GTAW) Groove Lab	3
WLD 140	Gas Metal Arc Welding (GMAW)	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab	3
WLD 143	Gas Metal Arc Welding (GMAW) Groove Lab	3
WLD 170	Blueprint Reading for Welding	2
WLD 171	Blueprint Reading for Welding Lab	3
WLD 220	Welding Certification	2
WLD 221	Welding Certification Lab	3
WLD 298	Welding Practicum OR	1 - 4
WLD 299	Cooperative Work Experience	(1- 4)
	Technical Electives	3
	Subtotal	42 - 49
	Total Credits	60 - 68

NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.

Diploma

Combination Welder - 4805084029

(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

ENG 101	Writing I OR	3
TEC 200	Technical Communications	(3)
MAT 110	Applied Mathematics OR	3
MAT 116	Technical Mathematics OR	(3)
MAT 146	Contemporary College Mathematics OR	(3)
MAT 150	College Algebra OR	(3)
MA 109	College Algebra	(3)
	General Education Total Credits	6

NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.

Required

	Computer/Digital Literacy	0-3
WLD 100	Oxy-Fuel Systems OR	2
WLD 110	Cutting Processes	(2)
WLD 101	Oxy-Fuel Systems Lab OR	2
WLD 111	Cutting Processes Lab	(3)
WLD 120	Shielded Metal Arc Welding (SMAW)	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab	3
WLD 123	Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR	3
WLD 225	Shielded Metal Arc Welding (SMAW) Open Groove Lab	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW)	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab	3
WLD 133	Gas Tungsten Arc Welding (GTAW) Groove Lab	3
WLD 140	Gas Metal Arc Welding (GMAW)	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab	3
WLD 143	Gas Metal Arc Welding (GMAW) Groove Lab	3
WLD 170	Blueprint Reading for Welding	2
WLD 171	Blueprint Reading for Welding Lab	3
WLD 220	Welding Certification	2
WLD 221	Welding Certification Lab	3
WLD 298	Welding Practicum OR	1-4

WLD 299	Cooperative Work Experience	(1-4)
	Technical Elective	2-3
	Subtotal	41-49
	Total Credits	47-55

***Technical Electives:**

WPP 200	Workplace Principles	3
WLD 151	Basic Welding A	2
WLD 161	Submerged Arc Welding Lab	1
WLD 181	Advanced Welding Systems Lab	1
WLD 191	Plasma Arc Welding Systems Lab	1
WLD 147	Flux Cored Arc Welding Lab	1
WLD 145	Gas Metal Arc Welding Aluminum Lab	1
WLD 251	Welding Automation Lab	1
WLD 253	Pipe Fitting and Template Development Lab	1
WLD 229	Shielded Metal Arc Welding Pipe Lab B	3
WLD 239	Orbital Tube Welding	1
WLD 240	Materials Technology	2
BEX 100	Basic Electricity for Non-Majors	3
BEX 101	Basic Electricity Lab for Non-Majors	2
FEX 100	Fundamentals of Electricity for Non-Majors	3

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.

Certificates

Welder Helper - 4805083129

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

WLD 151	Basic Welding A OR	2
WLD 120	Shielded Metal Arc Welding (SMAW) AND	(2)
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab OR	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW) AND	(2)
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab OR	(3)
WLD 140	Gas Metal Arc Welding (GMAW) AND	(2)
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab OR	(3)
WLD 152	Basic Welding B OR	(5)
IMT 100	Welding for Maintenance AND	(3)
IMT 101	Welding for Maintenance Lab	(2)
	Total Credits	2-5

Gas Welder - 4805083039

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

WLD 100	Oxy-Fuel Systems	2
WLD 101	Oxy-Fuel Systems Lab	2
	Total Credits	4

ARC Cutter - 4805083099

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC,WKC)

WLD 110	Cutting Processes	2
WLD 111	Cutting Processes Lab	3
	Total Credits	5

Tack Welder - 4805083119

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

WLD 170	Blueprint Reading for Welding	2
WLD 171	Blueprint Reading for Welding Lab	3
WLD 151	Basic Welding A OR	2
WLD 120	Shielded Metal Arc Welding (SMAW) AND	(2)
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab OR	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW) AND	(2)
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab OR	(3)

WLD 140	Gas Metal Arc Welding (GMAW) AND.....	(2)
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab OR.....	(3)
WLD 152	Basic Welding B.....	(5)
Total Credits		7-10

Production Line Welder - 4805083059

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 130	Gas Tungsten Arc Welding (GTAW).....	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab.....	3
WLD 140	Gas Metal Arc Welding (GMAW).....	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab.....	3
WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Processes.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
WLD 120	Shielded Metal Arc Welding (SMAW).....	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab.....	3
Total Credits		19-20

ARC Welder - 4805083029

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Processes.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
WLD 120	Shielded Metal Arc Welding (SMAW).....	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab OR.....	3
WLD 123	Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR.....	(3)
WLD 225	Shielded Metal Arc Welding (SMAW) Open Groove Lab.....	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW).....	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab OR.....	3
WLD 133	Gas Tungsten Arc Welding (GTAW) Groove Lab.....	(3)
WLD 140	Gas Metal Arc Welding (GMAW).....	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab OR.....	3
WLD 143	Gas Metal Arc Welding (GMAW) Fillet Groove Lab.....	(3)
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
Total		24-25

Pipeline Welder - 4805083109

(Offered at ASC, BLC, BSC, ELC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Processes.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
WLD 120	Shielded Metal Arc Welding (SMAW).....	2
WLD 130	Gas Tungsten Arc Welding (GTAW).....	2
WLD 140	Gas Metal Arc Welding (GMAW).....	2
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
WLD 220	Welding Certification.....	2
WLD 221	Welding Certification Lab.....	3
WLD 227	Shielded Metal Arc Welding (SMAW) Pipe Lab A.....	3
WLD 235	Gas Tungsten Arc Welding (GTAW) Pipe Lab A.....	3
WLD 245	Gas Metal Arc Welding (GMAW) Pipe Lab A.....	3

Recommended Electives:

WLD 229	Shielded Metal Arc Welding (SMAW) Pipe Lab B.....	(3)
WLD 237	Gas Tungsten Arc Welding (GTAW) Pipe Lab B.....	(3)
WLD 247	Gas Metal Arc Welding (GMAW) Pipe Lab B.....	(3)
WLD 253	Pipe Fitting and Template Development Lab.....	(1)
Total		29-40

AWS National Skills Standards Level I - 4805083089

(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Processes.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
WLD 120	Shielded Metal Arc Welding (SMAW).....	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab.....	3
WLD 123	Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR.....	3
WLD 225	Shielded Metal Arc Welding (SMAW) Open Groove Lab.....	(3)
WLD 130	Gas Tungsten Arc Welding (GTAW).....	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab.....	3
WLD 133	Gas Tungsten Arc Welding (GTAW) Groove Lab.....	3
WLD 140	Gas Metal Arc Welding (GMAW).....	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab.....	3
WLD 143	Gas Metal Arc Welding (GMAW) Fillet Groove Lab.....	3
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
Total		33-34

Shielded Metal Arc Welding - 4805083139

(Offered at BLC, BSC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 120	Shielded Metal Arc Welding (SMAW).....	2
WLD 121	Shielded Metal Arc Welding (SMAW) Fillet Lab.....	3
WLD 123	Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR.....	3
WLD 225	Shielded Metal Arc Welding (SMAW) Open Groove Lab.....	(3)
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Process.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
Total		17-18

Gas Metal Arc Welding - 4805083149

(Offered at BLC, BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 140	Gas Metal Arc Welding (GMAW).....	2
WLD 141	Gas Metal Arc Welding (GMAW) Fillet Lab.....	3
WLD 143	Gas Metal Arc Welding (GMAW) Groove Lab OR.....	3
WLD 245	Gas Metal Arc Welding (GMAW) Pipe Lab A OR.....	(3)
WLD 147	Flux Cored Arc Welding (FCAW) Lab.....	(1)
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Process.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
Total		15-18

Gas Tungsten Arc Welding - 4805083159

(Offered at BLC, BSC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

WLD 130	Gas Tungsten Arc Welding (GTAW).....	2
WLD 131	Gas Tungsten Arc Welding (GTAW) Fillet Lab.....	3
WLD 133	Gas Tungsten Arc Welding (GTAW) Groove Lab OR.....	3
WLD 235	Gas Tungsten Arc Welding (GTAW) Pipe Lab A.....	(3)
WLD 170	Blueprint Reading for Welding.....	2
WLD 171	Blueprint Reading for Welding Lab.....	3
WLD 100	Oxy-Fuel Systems OR.....	2
WLD 110	Cutting Process.....	(2)
WLD 101	Oxy-Fuel Systems Lab OR.....	2
WLD 111	Cutting Processes Lab.....	(3)
Total		17-18

Women's and Gender Studies

The Women's and Gender Studies Certificate Program provides an interdisciplinary approach that engages students in exploring and understanding historical and contemporary social issues with a focus on gender. The courses will require students to read, write, and think critically about such issues as identity, sexuality, the media, family, violence, health care, employment/discrimination, political structures, the intersection of gender, race, and poverty and the representation and participation of women on the world stage in artistic and socio-political spheres.

Certificate

Women's and Gender Studies – 0502073019

(Offered at JFC)

WGS	200	Introduction to Women's and Gender Studies in the Social Sciences OR	3
WGS	201	Introduction to Women's and Gender Studies in the Arts and Humanities.....	(3)
HIS	266	History of American Women to 1920 OR.....	3
HIS	267	History of American Women from 1920 OR	(3)
HIS	265	History of Women in America	(3)
		Electives (Selected from the following list or by consent of instructor)	6
		Total Credits	12

Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education nor cultural studies requirements.

Women's and Gender Studies Electives: (Required: 6 credits)

ANT	160	Cultural Diversity in the Modern World	3
ANT	220	Introduction to Cultural Anthropology	3
BIO	120	Human Ecology	3
COM	299	Special Topics in Communication: Gender and Communication	3
ENG	233	Literature and Identities: (Sexuality & Representation).....	3
ENG	232	Literature and Place (Sub-topic required)	3
ENG	234	Introduction to Women's Literature	3
FAM	253	Human Sexuality: Development, Behavior, and Attitudes	3
FLK	276	Introduction to Folk Studies	3
FLK	280	Cultural Diversity in the United States	3
GEO	160	Lands and Peoples of the Non-Western World	3
GEO	240	Geography and Gender	3
HIS	265	History of Women in America	3
HIS	266*	History of American Women to 1920*.....	3
HIS	267*	History of American Women from 1920*.....	3
HUM	121	Peace Studies	3
PHI	130	Ethics	3
PHI	110	Medical Ethics.....	3
REL	101	Introduction to Religious Studies	3
SOC	235	Inequality in Society.....	3
SWK	275	The Family	3
WGS	200*	Introduction to Women's and Gender Studies in the Social Sciences* (if not taken as core).....	3
WGS	201*	Introduction to Women's and Gender Studies in the Arts and Humanities* (if not taken as core).....	3
		Total Credits	12

Workplace Safety Specialist

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today's workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administrate safety programs.

Certificate

Workplace Safety Specialist – 1507993010

(Offered at MYC, SEC)

Oral Communications.....	3
Digital Literacy	0-3
BAS 288 Personal and Organizational Leadership.....	3
HSM 100 Introduction to Homeland Security	3
AHS 140 Introduction to Public and Community Health	3
ISX 100 Industrial Safety	3
Total Credits	15-18

Associate in Fine Arts (A.F.A.) Curricula

Digital Cinematic Arts

The Associate in Fine Arts (AFA) in Digital Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students that wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and for employment – worldwide – in this growing medium.

Associate in Fine Arts

Digital Cinematic Arts – 5006027029

(Offered at BLC)

General Education Core Requirements		24
ENG	101 Writing I	3
ENG	102 Writing I	3
	Oral Communications	3
	Humanities/Heritage	3
MAT	110 Applied Mathematics OR	3
MAT	146 Contemporary College Mathematics.....	(3)
	Natural Sciences	3
	Must include a laboratory experience for general education certification	
	In the Natural Sciences category.	
	Social/Behavioral Sciences	6

Digital Literacy **0-3**

Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Digital Cinematic Arts Core **26**

FLM	112	Filmmaking: Treatment to Short Screen Play	4
FLM	122	Filmmaking: Storyboard through Production.....	4

FLM 132	Filmmaking: Editing through Distribution	4
FLM 140	Filmmaking: Lab	2
FLM 260	Cinematography	3
IMD 250	Digital Video Editing I	3
FLM 190	Film Boot Camp*	3
FLM 299	Special Topics in Film: (Topic)	3

Concentration (Choose 12 hours from list of approved Digital Cinematic Arts Electives) 12

FLM 190	Film Boot Camp*	3
FLM 210	Screenwriting	3
FLM 291	Cinematic Arts Internship	3
IMD 115	Introduction to Graphic Design	3
IMD 128	Raster Design with Adobe Photoshop	3
IMD 228	Advanced Photoshop	3
IMD 240	Multimedia Development for the Web	3
THA 126	Fundamentals of Acting	3
THA 203	Acting for Film	3

Other courses may be selected with program coordinator permission.

Total 62-65

*FLM 190 can be taken twice for credit. In order for it to count in the core and as an elective, students must pass the course twice for credit.

Certificate

Filmmaking – From Script to Screen – 5006023019

(Offered at BLC)

FLM 112	Filmmaking: Treatment to Storyboard	4
FLM 122	Filmmaking: Storyboard through Production	4
FLM 132	Filmmaking: Editing through Distribution	4
FLM 140	Filmmaking: Lab	2
THA 126	Acting I OR	3
THA 203	Acting for the Camera	(3)
Total Credits		17

Theatre Arts

The Associate in Fine Arts (AFA) in Theatre degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Theatre Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Theatre foundation courses in acting and stagecraft, as well as a wide variety of performance and production-related electives. Students will focus on the development of performance skills and a basic knowledge of technical theatre, while participating firsthand in fully realized theatrical productions every semester. Classes will also encourage analytical skills and critical analysis. Students will be encouraged to participate in state and regional theatre auditions and festivals with audition pieces prepared specifically with an eye toward securing professional work.

Associate in Fine Arts

Theatre - 5005017019

(Offered at BLC, OWC)

General Education Core Requirements 25

Writing/Accessing Information

ENG 101	Writing I	3
ENG 102	Writing I	3
	Oral Communications	3
	Heritage/Humanities (not including THA classes)	3
	Social/Behavioral Sciences	6
	Natural Sciences with laboratory	4
MA 109	College Algebra OR	3
MA 111	Contemporary Mathematics OR	(3)

MAT 150	College Algebra OR	(3)
	Higher Level Quantitative Reasoning course	(3)

Theatre Core 15-18

	Computer/Digital Literacy	0-3
THA 101	Introduction to Theatre	3
THA 126	Fundamentals of Acting	3
THA 226	Acting II: Scene Study (Realism)	3
THA 227	Acting III: Scene Study (Styles)	3
THA 260	Stagecraft	3

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

Practicum Core 3

THA 190	Production Practicum (1) (May be repeated)	
THA 191	Performance Practicum (1) (May be repeated) to equal 3 hours, OR	3
TA 195	Special Projects in Theatre Arts (Project Title) OR	(3)
THA 196	Summer Theatre Workshop	(3)

Concentration (Choose 18 hours from the Approved Theatre Electives) 18

THA 127	Acting Techniques	3
THA 150	Fundamentals of Production	3
THA 200	Introduction to Dramatic Literature	3
THA 283	American Theatre	3
FLM 110	Filmmaking: Treatment through Storyboard	4
FLM 120	Filmmaking: Storyboard through Production	4
FLM 130	Filmmaking: Editing through Distribution	4

(FLM courses are co-requisites)

MUS 192	University Chorus	1
ART 110	Drawing I	3
ENG 281	Introduction to Film	3
ENG 282	International Film Studies	3
IMD 250	Digital Video Editing Final Cut	3
	Other Courses approved by program coordinator	

Summary

General Education Core Requirements	25-28
Theatre Core Requirements	15
Practicum Core	3
Concentration (Approved Theatre Electives)	18
Total	61-64

Visual Art

The Associate in Fine Arts (AFA) in Visual Art degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Visual Arts and/or a career in arts-related areas requiring pre-professional credentials. The program includes general education requirements, visual arts foundation courses in drawing, design and art history, as well as a wide variety of studio art electives. Students will focus on the development of artistic skills and a visual vocabulary for personal expression, while exploring both traditional and nontraditional art areas. Classes will also encourage analytical and creative problem-solving skills and experience in both verbal presentation of ideas and critical concepts. A personal portfolio of artwork will be a tangible result of a student completing this program.

Associate in Fine Arts

Visual Art - 5007027019

(Offered at HZC, OWC, WKC)

General Education Core Requirements

ENG 101	Writing I	3
ENG 102	Writing II	3
	Oral Communications	3

Arts & Humanities	3
(The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or Concentration)	
Social/Behavioral Sciences	6
Natural Sciences	3
(Must include a laboratory experience for general education certification in the Natural Sciences category)	
Quantitative Reasoning	3
Subtotal	24

Fine Arts Core (Visual Art track)

ART 105	Ancient through Medieval Art History.....	3
ART 106	Renaissance through Modern Art History.....	3
ART 110	Drawing I	3
ART 112	2-Dimensional Design	3
ART 113	3-Dimensional Design	3
ART 210	Drawing II	3
Subtotal		18

Concentration (Choose 18 hours from the Approved Art Studio Electives)

ART 211	Life Drawing.....	3
ART 220	Painting I	3
ART 221	Painting II	3
ART 231	Jewelry/Metals I.....	3
ART 232	Jewelry/Metals II.....	3
ART 240	Ceramics I	3

ART 241	Ceramics II.....	3
ART 251	Graphic Communication I	3
ART 252	Typography	3
ART 253	Graphic Communication II.....	3
ART 254	Design Process and Presentation.....	3
ART 260	Sculpture I	3
ART 261	Sculpture II	3
ART 270	Printmaking I.....	3
ART 271	Printmaking II.....	3
ART 280	Beginning Film Photography	3
ART 281	Digital Photography I.....	3
ART 282	Digital Photography II	3
ART 290	Survival Skills for Artists	3
ART 299	Directed Studies in Art	1-3

Summary

General Education Core Requirements	24
Fine Arts Core Requirements	18
Concentration (Approved Art Studio Electives)	18
Total	60

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

2 A course used to fulfill one category cannot be used to fulfill another category.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.