

Technical Education

Dean: Mrs. Cheryl Runnebaum

Contact: TEC@kckcc.edu

The Technical Education Center meets the changing educational and technological workforce development needs of the community by providing adult education and technical training to support the economic and well-being of the community and businesses within the college service area. We minimize barriers to educational opportunities and enhance the intellectual and technical skills of area residents by providing adult training, general academic and technical education, customized business and industry training, and economic development services that prepare students and trainees for rewarding employment.

Credit instruction is offered in a large selection of different programs using industry driven instruction, industry-standard equipment, and industry recognized credentials and work-based learning.

Associate in Applied Science Degrees

Automotive Technology –Pending

Computer Engineering Technology-Web Emphasis
Computer Software Technology Technician
Computer System Networking & Telecommunications
Drafting (CAD)

Associate in Science Degrees

Curriculum pathway leading to an Associate in Science for students desiring to transfer to a 4-year degree program preparing for the following health care careers:

Computer Engineering Technology
Cybersecurity

Associate in General Studies Degree

Computer Engineering Technology

Certificates

Auto Collision Repair	Electrical Technology
Automotive Technology	Heating and Refrigeration
Barbering – Pending	Machine Technology
Building Engineering & Maintenance Technology	Multimedia Video Production
Commercial and Residential Equipment Technology	Nail Technology
Computer Software Technology	Web Application & Design
Computer Support Specialist	Welding Technology
Computer System Networking & Telecommunications	
Computer System Networking & Telecommunications – Computer Specialist	
Computer System Networking & Telecommunications – Network Specialist	
Construction Technology	
Cosmetology	
Culinary Arts	

Computer Engineering Technology- Web Emphasis

Associate in Applied Science

Program/CIP Code: CETE.WE.AAS/15.1201

Credits Required: 67

Division: TEC

Contact: CIST@kckcc.edu

The Department of Computer and Information Systems Technology (CIST) is committed to meet the needs of the students who are enrolled in our programs. We are committed to excellence in teaching. We provide quality transfer courses, general education courses, prerequisites within vocational programs, and vocational courses.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

	Course	Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

	Course	Credit Hours
ENGL 0101	Composition I*	3
ENGL 0102	Composition II* or	3
ENGL 0206	Technical Writing	
SPCH 0151	Public Speaking OR	3
SPCH 0201	Interpersonal Communication	
ENGR 0104	Applied Math** or Math Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Natural and Physical Science Elective	3
Total Hours for General Education Requirements		21
* See course description for prerequisite.		
** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.		

Computer Engineering Technology Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0111	Microcomputer Business Software	3
CIST 0117	Networking I	3
CIST 0137	HTML Web Page Development	3
CIST 0147	Programming Fundamentals	4
CIST 0180	Programming Algorithms	4
CIST 0191	Discrete Structures	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST 0232	UNIX Scripting and Utilities	3
Web Application Electives		
CIST 0150	Web Graphics and Multimedia (3hrs)	14
CIST 0151	Structured Query Language (SQL) (3hrs)	
CIST 0152	JavaScript (3hrs)	
CIST 0230	Advanced Web Page Design (3hrs)	
CIST 0272	Server Side Programming Using PHP (3hrs)	
CIST 0299	Industrial Internship (Computer) (3hrs)	
Total Hours for Computer Engineering Technology Requirements		45
*See course syllabi for Computer Engineering Technology course prerequisites.		

Total Hours for an Associate in Applied Science in Computer Engineering Technology Degree	67
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Computer Software Technology Technician *Associate in Applied Science*

Program/CIP Code: CSTE.AAS/15.1201

Credits Required: 67

Division: TEC

Contact: CIST@kckcc.edu

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Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

	Course	Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

	Course	Credit Hours
ENGL 0101	Composition I*	3
ENGL 0102	Composition II* or	3
ENGL 0206	Technical Writing*	
SPCH 0151	Public Speaking OR	3
SPCH 0201	Interpersonal Communication	
ENGR 0104	Applied Math** or Math Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Natural and Physical Science Elective	3
Total Hours for General Education Requirements		21
* See course syllabus for prerequisite.		
** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.		

Computer Software Technology Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0111	Microcomputer Business Software	3
CIST 0117	Networking I	3
CIST 0120	Programming Fundamentals	4
CIST 0137	HTML Web Page Development	3
CIST 0180	Programming Algorithms	4
CIST 0191	Discrete Structures	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST 0232	UNIX Scripting and Utilities	3
Programming Software Electives		
CIST 0100	Introduction to the Internet (3hrs)	14
CIST 0166	Microcomputer Applications I: Excel Spreadsheets (3hrs)	
CIST 0182	Desktop Publishing and Presentations (3hrs)	
CIST 0224	Advanced Desktop Publishing (3hrs)	
CIST 0256	Object Oriented Programming using JAVA (3hrs)	
CIST 0236	Database Management (3hrs)	
CIST 0240	Data Structures C++ (4hrs)	
CIST 0299	Industrial Internship: Computer (3hrs)	
Total Hours for Computer Software Technology Requirements		45
* See course syllabi for Computer Software Technology course prerequisites.		

Total Hours for an Associate in Applied Science in Computer Software Technology Degree	67
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Computer System Networking & Telecommunications

Associate in Applied Science

Program/CIP Code: CSNT.AAS/11.0901

Credits Required: 67

Division: TEC

Contact: CIST@kckcc.edu

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Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

	Course	Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

	Course	Credit Hours
ENGL 0101	Composition I*	3
ENGL 0102	Composition II* or	3
ENGL 0206	Technical Writing*	
SPCH 0151	Public Speaking OR	3
SPCH 0201	Interpersonal Communication	
ENGR 0104	Applied Math** or Math Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Natural and Physical Science Elective	3
Total Hours for General Education Requirements		21
* See course syllabus for prerequisite.		
** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.		

Computer System Networking and Telecommunications Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0111	Microcomputer Business Software	3
CIST 0117	Networking I	3
CIST 0120	Programming Fundamentals	4
CIST 0137	HTML Web Page Development	3
CIST 0180	Programming Algorithms	4
CIST 0191	Discrete Structures	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST 0232	UNIX Scripting and Utilities	3
Programming Software Electives		
CIST 0158	Networking 2 (4hrs)	14
CIST 0161	Systems Manager (Windows 2003 Server) (4hrs)	
CIST 0216	Networking 3 (4hrs)	
CIST 0218	Advanced System Manager (4hrs)	
CIST 0220	Service and Support (4hrs)	
CIST 0226	SQL Server (4hrs)	
CIST 0250	Networking 4 (4hrs)	
CIST 0252	Data Design and Implementation (4hrs)	
CIST 0254	O.S. Security (4hrs)	
CIST 0299	Industrial Internship: Computer (3hrs)	
Total Hours for Computer System Networking and Telecommunications Requirements		45
* See course syllabi for Computer System Networking and Telecommunications course prerequisites.		

Total Hours for an Associate in Applied Science in Computer System Networking and Telecommunications Degree	67
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Drafting (Computer Aided Design)

Associate of Applied Science

Program/CIP Code: DRFT.CAD.AAS/15.1302

Credits Required: 63

Division: TEC

Contact: MSBT@kckcc.edu

MISSION:

The Drafting Program is committed to meeting the needs of the students enrolled in our courses. We are also committed to excellence in teaching.

The Department offers courses in the disciplines of GIS and CAD Drafting. We provide quality transfer courses, general education courses, prerequisites within vocational programs, and vocational courses.

All courses within the Drafting Program are designed to meet the needs of the students who take them and provide them with the knowledge, ability, skills, and the critical thinking (deductive reasoning) they will need to enter the modern marketplace.

Designed to prepare students for a variety of drafting and design positions in business, industry, and government, this program provides instruction in drafting techniques, procedures, processes, standards, and the care and use of tools and special instruments of the trade. CAD techniques utilizing Windows are emphasized in each course.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

Course		Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

Course		Credit Hours
ENGL 0101	Composition I*	3
ENGL 0102 OR ENGL 0206	Composition II* OR Technical Writing	3
SPCH 0151 OR SPCH 0201	Public Speaking OR Interpersonal Communication	3
MATH 0104	Intermediate Algebra** or higher	3-5
	Humanities Elective	3
	Social Science Elective	3
	Natural & Physical Science Elective	3-5
Total Hours for General Education Requirements		21-25

*See course description for prerequisite.

**Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.

Drafting (CAD) Requirements*

Course		Credit Hours
ENGR 0103	Descriptive Geometry	3
ENGR 0105	Print Reading	3
ENGR 0106	Computer Aided Drafting	3
ENGR 0151	Drafting Technology	3
ENGR 0152	Fundamentals of Parametric Modeling	4
ENGR 0154	Pictorial Drawing	2
ENGR 0195	Fundamentals of Arcview GIS	4
ENGR 0206	Advanced Computer Aided Drafting	3
ENGR 0216	Fundamentals of MicroStation	3
ENGR 0251 OR ENGR 0253	Fundamentals of Building Planning OR Fundamentals of Structural Steel Drawing	3
ENGR 0257	Fundamentals of CAD Technologies	3
ENGR 0260 OR ENGR 0262 OR ENGR 0264 OR ENGR 0266	Advanced Drafting OR Commercial Building Planning OR Industrial Illustration OR Structural Steel Drafting	4
ENGR 0281	Drafting Field Project I	3
Total Hours for Drafting (CAD) Requirements		41
*See course syllabi for Drafting (CAD) course prerequisites.		

Total Hours for an Associate in Applied Science in Drafting (CAD) Degree	63-67
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Electives: Students can substitute the following drafting courses for ones listed in the "Drafting Requirements" with the approval of the Coordinator.		
ENGR 0107	Construction Management	3
ENGR 0196	CIS for Homeland Security	3
ENGR 0268	Civil Drafting Technology	4

Computer Engineering Technology

Associate in Science

Program/CIP Code: CETE.AS/47.0104

Credits Required: 62

Division: TEC

Contact: CIST@kckcc.edu

The Department of Computer and Information Systems Technology (CIST) is committed to meet the needs of the students who are enrolled in our programs. We are committed to excellence in teaching. We provide quality transfer courses, general education courses, prerequisites within vocational programs, and vocational courses.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

Course	Credit Hours
BLUE 0101 Freshman Seminar	1

General Education Requirements

Course	Credit Hours
ENGL 0101 Composition I*	3
ENGL 0102 Composition II*	3
SPCH 0151 Public Speaking OR SPCH 0201 Interpersonal Communication	3
Humanities Electives (two different disciplines)	6
Social Science Elective (two different disciplines)	6
Math and Natural & Physical Sciences	13-15
College Algebra (MATH 0105)** or Higher	
Natural and Physical Science Elective with Lab	
Math and Natural & Physical Sciences Electives	
Total Hours for General Education Requirements	34-36
* See course syllabus for prerequisite.	
** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.	

Computer Engineering Technology Requirements*

Course	Credit Hours
CIST 0117 Networking I	3
CIST 0137 HTML Web Page Development	3
CIST 0147 Computer Operating System	4
CIST 0180 Programming Algorithms	4
CIST 0214 Home Computer Repair/Maintenance	4
CIST Computer Information Systems Electives	9
Total Hours for Computer Engineering Technology Requirements	27

* See course syllabi for Computer Engineering Technology course prerequisites.

Total Hours for an Associate in Science in Computer Engineering Technology Degree	62-64
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Cybersecurity

Associate in Science

Program/CIP Code: CYBR.AS/11.1003

Credits Required: 61

Division: TEC

Contact: CIST@kckcc.edu

The Associate in Science in Cybersecurity prepares students with the entry-level knowledge needed to protect cyberspace against physical and cyber threats. This degree is designed to enable students to easily transfer to a college or university offering a bachelor's degree in cybersecurity.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirement

Course		Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

Course		Credit Hours
ENGL 0101	Composition I*	3
ENGL 0102	Composition II*	3
SPCH 0151	Public Speaking OR	3
SPCH 0201	Interpersonal Communication	
Humanities Electives (2 Disciplines)		6
Social Science Elective (2 Disciplines)		6
Math and Natural & Physical Sciences		13-15
College Algebra (MATH 0105)** or Higher		
Natural and Physical Science Elective with Lab		
Math and Natural & Physical Sciences Electives		
Total Hours for General Education Requirements		34-36
* See course syllabus for prerequisite.		
** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.		

Cybersecurity Requirements

Course		Credit Hours
CIST 0117	Networking I	3
CIST 0125	Network Security (Cybersecurity I)	4
CIST 0155	Cyber Forensics (Cybersecurity III)	4
CIST 0158	Networking 2	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST 0225	Information Assurance (Cybersecurity II)	4
CIST 0255	Legal Issues in Cybersecurity	3
Total Hours for Cybersecurity Requirements		26
* See course syllabi for Cybersecurity course prerequisites.		

Total Hours for an Associate in Science in Cybersecurity Degree	61-63
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Computer Engineering Technology

Associate in General Studies

Program/CIP Code: CETE.AGS/15.1201

Credits Required: 61-62

Division: TEC

Contact: cist@kckcc.edu

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Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

College Requirements

	Course	Credit Hours
BLUE 0101	Freshman Seminar	1

General Education Requirements

	Course	Credit Hours
ENGL 0101	Composition I	3
ENGL 0102	Composition II*	3
SPCH 0151	Public Speaking OR	3
SPCH 0201	Interpersonal Communication	
ENGR0104	Applied Math** or Math Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Natural and Physical Science Elective	3
Total Hours for General Education Requirements		21

* See course description for prerequisite.

** Math sequence is contingent upon previous high school mathematics background and transfer institution. Students should confer with an advisor to determine correct placement.

Degree Requirements

	Course	Credit Hours
CIST	Electives	19-20
	Electives	20
Total Hours for Computer Engineering Technology Requirements		39-40

Total Hours for an Associate in General Studies in Computer Engineering Technology Degree		61-62
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Auto Collision Repair

Certificate

Program/CIP Code: ACRT.TCERTA/ACRT.TCERTB/ACRT.TCERTC / 47.0603

Credits Required: 17/43/52

Division: TEC

Contact: TEC@kckcc.edu

Accreditation: National Automotive Technicians Educational Foundation (NATEF)

This program covers all five areas of the Automotive Service Excellence (ASE) certification in Automotive Collision repair. The latest equipment is used, including the Blackhawk multi-tower P3000 frame alignment system and a Chief E-Z-Liner Frame Machine with Shark Sonic Measuring system and Wheel Alignment system. The program also offers the latest in OEM recommended repair technology using the latest Squeeze Type Resistance Spot Welding. The program has two of the latest technology Global Paint booths with Axalta and PPG solvent and waterborne paint systems. Students will have the opportunity to earn I-CAR (Inter-Industry Conference on Automotive Collision Repair) certificates in the two areas of Paint and Refinishing and Non-Structural Repair, along with the opportunity to earn welding certifications in collision repair steel and aluminum.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Auto Collision Requirements: Certificate A*

Course	Credit Hours
ACRT 0100 Technical Safety and Tools	1
ACRT 0110 Cosmetic Auto Body	2
ACRT 0160 Painting and Refinishing I	3
ACRT 0260 Painting and Refinishing 2	3
ACRT 0261 Painting and Refinishing 3	3
ACRT 0262 Painting and Refinishing 4	4
BUSN 0250 Obtaining Employment	1
*See course syllabi for Auto Collision course prerequisites.	

Total Hours for an Auto Collision Certificate A	17
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Auto Collision Requirements: Certificate B*

Course	Credit Hours
<i>Completion of Certificate A Requirements</i>	<i>17</i>
ACRT 0120 Non-Structural Analysis and Damage Repair 1	4
ACRT 0220 Non-Structural Analysis and Damage Repair 2	4
ACRT 0221 Non-Structural Analysis and Damage Repair 3	4
ACRT 0222 Non-Structural Analysis and Damage Repair 4	5
ACRT 0140 Structural Analysis and Damage Repair 1	2
ACRT 0240 Structural Analysis and Damage Repair 2	2
ACRT 0241 Structural Analysis and Damage Repair 3	3
ACRT 0290 OR Estimating/Damage Analysis and Customer Service OR	2
ACRT 0175 Paintless Dent Repair	
*See course syllabi for Auto Collision course prerequisites.	

Total Hours for an Auto Collision Certificate B	43
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Auto Collision Requirements: Certificate C*

Course		Credit Hours
<i>Completion of Certificate A and B Requirements</i>		43
ACRT 0180	Mechanical and Electrical Component	3
ACRT 0181	Mechanical and Electrical Component 2	3
ACRT 0242	Structural Analysis and Damage Repair 4	3
*See course syllabi for Auto Collision course prerequisites.		

Total Hours for an Auto Collision Certificate C	52
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Automotive Technology

Certificate

Program/CIP Code: AUTO.TCERTA/AUTO.TCERTB/AUTO.TCERTC / 47.0604

Credits Required: 21/42/53

Division: TEC

Contact: TEC@kckcc.edu

Accreditation: National Automotive Technicians Educational Foundation (NATEF)

Auto Technology is designed to give students the skills to pass the written portion of the Automotive Service Excellence (ASE) certification tests and customized to meet the highest standards of the National Automotive Technicians Educational Foundation (NATEF). TEC is introducing a new AutoLab which includes modules based on simulator panels, real vehicle component trainers and computer-based simulations. Using the modules, students develop both knowledge and the hands-on skills required for working on real vehicles in the workshop area.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Automotive Technology Requirements: Certificate A*

Course		Credit Hours
AUTT 0103	Automotive Shop Operations and Safety	2
AUTT 0131	Undercar Maintenance	2
AUTT 0142	Suspension and Steering 1	3
AUTT 0152	Brakes 1	3
AUTT 0132	Underhood Maintenance	3
AUTT 0163	Electrical 1	3
AUTT 0164	Electrical 2	2
AUTT 0182	Engine Performance 1	3
*See course syllabi for Automotive Technology course prerequisites.		

Total Hours for an Automotive Technology Certificate A	21
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Automotive Technology Requirements: Certificate B*

Course		Credit Hours
<i>Completion of Certificate A Requirements</i>		21
AUTT 0263	Electrical and Electronics 3	3
AUTT 0272	Heating and Air Conditioning	3
AUTT 0284	Engine Performance 2	4
AUTT 0213	Engine Repair 1	2
AUTT 0222	Transmission and Driveline 1	4
AUTT 0242	Automotive Chassis Systems	5
*See course syllabi for Automotive Technology course prerequisites.		

Total Hours for an Automotive Technology Certificate B	42
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Automotive Technology Requirements: Certificate C*

Course		Credit Hours
<i>Completion of Certificate A and B Requirements</i>		42
AUTT 0223	Transmission and Driveline 2	5
AUTT 0264	Advanced Electronics, Chassis and HVAC Service	2
AUTT 0214	Engine Repair 2	2
AUTT 0285	Engine Performance 3	2
*See course syllabi for Automotive Technology course prerequisites.		

Total Hours for an Automotive Technology Certificate C	53
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Building Engineering & Maintenance Technology

Certificate

Program/CIP Code: BPMT.TCERTB/46.0401

Credits Required: 44

Division: TEC

Contact: TEC@kckcc.edu

This program prepares students for entry-level maintenance positions, and many other trade positions. Students will have the ability to service residential a/c units, and furnace units, provide electrical repairs and maintenance, provide plumbing repairs and maintenance, install and finish sheetrock, apply finishes (painting), install windows, doors, and stairs, enhance carpentry skills, and obtain several industry recognized certifications.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Building Engineering & Maintenance Technology Requirements*

Course		Credit Hours
BPMT 0101	OSHA 30	1
BPMT 0102	Tool Safety, Power, Pneumatic, Hand	2
BPMT 0104	Custodial Training	1
BPMT 0108	Carpentry Basics	3
BPMT 0112	Residential Electrical	4
BPMT 0113	Windows, Doors & Stairs	3
BPMT 0115	Residential Plumbing and Repair	4
BPMT 0121	Remodel Painting	3
BPMT 0124	Landscaping	4
BPMT 0130	Drywall	3
BPMT 0133	Masonry Repair	2
BPMT 0136	Roof Coverings, and Gutters	2
BPMT 0138	Power Industrial Trucks and Aerial Lifts	2
BPMT 0145	Residential Painting	2
BPMT 0180	Brazing/Soft Soldering	1
BPMT 0201	HVAC Maintenance	3
BPMT 0221	Basic Household Appliance Repair & Maintenance	3
HVAC 0220	EPA 608	1

*See course syllabi for Building Engineering & Maintenance Technology course prerequisites.

Total Hours for a Building Engineering & Maintenance Technology Certificate	44
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Commercial & Residential Equipment Technology Certificate

Program/CIP Code: MAPR.TCERTA/MAPR.TCERTB/47.0106

Credits Required: 23/44

Division: TEC

Contact: TEC@kckcc.edu

This program prepares for entry-level positions working on major in-home appliances and commercial restaurant equipment repair. Enrollees get detailed instruction on refrigerators, ranges, dishwashers, washing machines, dryers, wall ovens, microwaves, and kitchen ventilation.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Commercial & Residential Equipment Technology Requirements: Certificate A*

Course		Credit Hours
Certificate A		
MAPR 0100	Electrical Safety & Tools of the Trade	2
MAPR 0108	Basic Electricity	3
MAPR 0210	Cooking Equipment Residential and Commercial	3
MAPR 0220	Dishwashers-Domestic/Professional/Commercial	3
MAPR 0230	Residential Refrigerators and Freezers	3
MAPR 0243	Microwave Ovens-Domestic/Commercial	3
MAPR 0245	Top and Front Load Clothes Washers-Domestic/Commercial	3
MAPR 0247	Gas and Electric Clothes Dryers/Stack Laundry-Domestic/Commercial	3
*See course syllabi for Commercial & Residential Equipment Technology course prerequisites.		

Total Hours for a Commercial & Residential Equipment Technology Certificate A	23
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Commercial & Residential Equipment Technology Requirements: Certificate B*

Course		Credit Hours
MAPR 0112	Fundamentals of Refrigeration	2
MAPR 0140	Brazing/Swaging/Silver and Soft Soldering	3
MAPR 0160	Workplace Skills/Customer Relations/Recordkeeping	2
MAPR 0222	Advanced Refrigeration	4
MAPR 0235	Commercial Refrigeration	3
HVAC 0220	EPA 608	1
Electives (Scheduled by Instructor)		
MAPR 0215	Ventilation Hoods/Make-Up Air Blowers-Domestic/Commercial (3hrs)	6
MAPR 0240	Steam Ovens/Proofers/Deep Fryers-Domestic/Commercial (3hrs)	
MAPR 0284	Special Projects (3hrs)	
MAPR 0290	Internship (3hrs)	
MAPR 0291	Internship II (3hrs)	
*See course syllabi for Commercial & Residential Equipment Technology course prerequisites.		

Total Hours for a Commercial & Residential Equipment Technology Certificate B	44
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Computer Software Technology

Certificate

Program/CIP Code: CSTE.CERT/15.1204

Credits Required: 36

Division: TEC

Contact: CIST@kckcc.edu

The Department of Computer and Information Systems Technology (CIST) is committed to meet the needs of the students who are enrolled in our programs. We are committed to excellence in teaching. We provide quality transfer courses, general education courses, prerequisites within vocational programs, and vocational courses.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Computer Software Technology Requirements*

Course	Credit Hours
CIST 0101 Computer Concepts and Applications	3
CIST 0111 Microcomputer Business Software	3
CIST 0117 Networking I	3
CIST 0120 Programming Fundamentals	4
CIST 0137 HTML Web Page Development	3
CIST 0166 Microcomputer Applications I-II (Excel Spreadsheets)	3
CIST 0180 Programming Algorithms	4
CIST 0232 Unix Scripting and Utilities	3
CIST 0236 Database Management	3
CIST 0240 Data Structures C++	4
CIST 0256 Object Oriented Programming using Java	3
*See course syllabi for Computer Software Technology course prerequisites.	

Total Hours for a Computer Software Technology Certificate	36
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Computer Support Specialist

Certificate

Program/CIP Code: CRTE.TCERTA/CRTE.TCERTB/11.1006

Credits Required: 21/44

Division: TEC

Contact: CIST@kckcc.edu

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Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Computer Support Specialist Requirements: Certificate A*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CRTE 0100	COMP TIA A + Essentials	3
CRTE 0101	COMP TIA A + Practical Applications	3
CRTE 0106	Advanced Operating Systems	3
CRTE 0108	Laptops and Mobile Devices	3
CRTE 0110	Printers Scanners and Peripherals	3
ENGR 0108	Electronic Circuit Fundamentals	3
*See course syllabi for Computer Support Specialist course prerequisites.		

Total Hours for a Computer Support Specialist Certificate A	21
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Computer Support Specialist Requirements: Certificate B*

Course		Credit Hours
CRTE 0115	Applied Networking 1	2
CRTE 0117	Applied Networking 2	2
CRTE 0200	Server Operating Systems and Virtualization	3
CRTE 0201	Server Administration	3
CRTE 0202	Linux and Windows Practical Server	3
CRTE 0203	Computer Network Security	3
CIST 0117	Networking 1	3
CIST 0158	Networking 2	4
*See course syllabi for Computer Support Specialist course prerequisites.		

Total Hours for a Computer Support Specialist Certificate B	44
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Computer System Networking & Telecommunications

Certificate

Program/CIP Code: CNST.CERT/11.0901

Credits Required: 38

Division: TEC

Contact: CIST@kckcc.edu

This program is designed for the student who wants to complete a one-year certificate in Software Support. This program is designed for the computer professional upgrading job skills or the returning student wishing to start a computer career. KCKCC is a Microsoft Authorized Academic Training Center. See our website for the most current information.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Computer System Networking & Telecommunications Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0111	Microcomputer Business Software	3
CIST 0117	Networking I	3
CIST 0147	Computer Operating System	4
CIST 0158	Networking 2	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST 0216	Networking 3	4
CIST 0232	UNIX Scripting and Utilities	3
CIST 0250	Networking 4	4
ENGR 0180	Electronic Circuit Fundamentals	3
CIST	Computer Information Systems Electives	3-4
*See course syllabi for Computer System Networking & Telecommunications course prerequisites.		

Total Hours for a Computer System Networking & Telecommunications Certificate	38-39
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Computer System Networking & Telecommunications – Computer Specialist

Certificate

Program/CIP Code: CNST.CSC.CERT/11.0901

Credits Required: 17

Division: TEC

Contact: CIST@kckcc.edu

This program is designed for the student who wants to complete a certificate in Network Support. This program is designed for the computer professional upgrading job skills or the returning student wishing to start a network career. KCKCC is a Microsoft® Authorized Academic Training Center and a Cisco Certified Academy. See our website for the most current information.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Computer Specialist Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0117	Networking I	3
CIST 0147	Computer Operating System	4
CIST 0214	Home Computer Repair/Maintenance	4
CIST	Computer Information Systems Electives	3-4
*See course syllabi for Computer Specialist course prerequisites.		
Total Hours for a Computer Specialist Certificate		17-18

Computer System Networking & Telecommunications – Network Specialist

Certificate

Program/CIP Code: CNST.NSC.CERT/11.0901

Credits Required: 18

Division: TEC

Contact: CIST@kckcc.edu

This program is designed for the student who wants to complete a certificate in Network Support. This program is designed for the computer professional upgrading job skills or the returning student wishing to start a network career. KCKCC is a Microsoft® Authorized Academic Training Center and a Cisco Certified Academy. See our website for the most current information.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Network Specialist Requirements*

Course		Credit Hours
CIST0101	Computer Concepts and Applications	3
CIST0117	Networking I	3
CIST0158	Networking II	4
CIST0216	Networking III	4
CIST0250	Networking IV	4
*See course syllabi for Network Specialist course prerequisites.		

Total Hours for a Network Specialist Certificate	18
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Construction Technology

Certificate

Program/CIP Code: CONS.TCERTA/CONS.TCERTB/CONS.TCERTC/46.0201

Credits Required: 18/36/48

Division: TEC

Contact: TEC@kckcc.edu

Plumbers, electricians, masons, and carpenters fill the ranks of the construction industry. This course prepares students for these fields at the apprenticeship level. Students work on a variety of projects which typically includes constructing a house from the foundation to the finishing touches (weather permitting) in order to get the hands on experience in the program. Apprenticeship opportunities with over 10 skilled craft unions are available for graduates through the Construction Apprenticeship Tech Prep Consortium.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Construction Technology Requirements: Certificate A*

Course	Credit Hours
CONS 0101 Safety Orientation	1
CONS 0106 Introductory Craft Skills	3
CONS 0108 Carpentry Basics	4
CONS 0109 Floors, Walks & Ceiling Framing	4
CONS 0111 Roof Framing	3
CONS 0113 Windows, Doors & Stairs	3
*See course syllabi for Construction Technology course prerequisites.	

Total Hours for a Construction Technology Certificate A	18
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Construction Technology Requirements: Certificate B*

Course	Credit Hours
<i>Completion of Certificate A Requirements</i>	<i>18</i>
CONS 0208 Carpentry (Level 2)	3
CONS 0115 Electrical (Level 1)	3
CONS 0110 Concrete Finishing (Level 1)	3
CONS 0140 Painting (Level 1)	3
CONS 0142 Plumbing (Level 1)	3
CONS 0112 Drywall (Level 1-2)	3
*See course syllabi for Construction Technology course prerequisites.	

Total Hours for a Construction Technology Certificate B	36
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Construction Technology Requirements: Certificate C*

Course		Credit Hours
<i>Completion of Certificate A and B Requirements</i>		<i>36</i>
CONS 0107	Masonry (Level 1)	2
Electives (Scheduled by Instructor)		
CONS 0123	Insulating (3hrs)	10
CONS 0136	Rigging Fundamentals (3hrs)	
CONS 0151	Scaffolding (2hrs)	
CONS 0155	Sprinkler Fitting (Level 1) (2hrs)	
CONS 0209	Masonry (Level 2) (2hrs)	
CONS 0210	Concrete Finishing (Level 2) (3hrs)	
CONS 0215	Electrical (Level 2) (3hrs)	
CONS 0240	Painting (Level 2) (3hrs)	
CONS 0242	Plumbing (Level 2) (3hrs)	
CONS 0259	Sprinkler (Level 2) (2hrs)	
*See course syllabi for Construction Technology course prerequisites.		

Total Hours for a Construction Technology Certificate C	48
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Cosmetology

Certificate

Program/CIP Code: COSM.TCERTC/12.0401

Credits Required: 50

Division: TEC

Contact: TEC@kckcc.edu

This is a highly structured program which prepares students to take the Kansas Board of Cosmetology written and performance exam required before a graduate can become a licensed cosmetologist. Enrollees must have a government-issued photo identification card. Students must purchase uniforms, textbooks, and cosmetology kit. A Kansas Board of Cosmetology testing fee is also required. Students must be high school graduates or have a GED before they are eligible to take the Kansas Board of Cosmetology exam.

Requirements for admission to the program:

- Reading score of 60 or higher on the Accuplacer.
- Contact program for program-specific advising.

Cosmetology Requirements*

Course	Credit Hours
COSM 0101 Scientific Concepts	5
COSM 0105 Cosmetology Hair Care/Styling Services	6
COSM 0106 Cosmetology Hair Care/Skin Care Services	6
COSM 0107 Cosmetology Hair Skin and Nail Care	2
COSM 0110 Chemical Services I	4
COSM 0111 Chemical Services II	5
COSM 0112 Chemical Services III	5
COSM 0115 Hair Designing I	5
COSM 0116 Hair Designing II	5
COSM 0117 Hair Designing III	2
COSM 0120 Business Practices I	1
COSM 0121 Business Practices II	2
COSM 0125 Kansas State Law	2
*See course syllabi for Cosmetology course prerequisites.	

Total Hours for a Cosmetology Certificate	50
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Culinary Arts

Certificate

Program/CIP Code: CULA.TCERTB/12.0505

Credits Required: 40

Division: TEC

Contact: TEC@kckcc.edu

Culinary Arts teaches students to master the fundamental skills of food service in hotels, restaurants, hospitals, catering, etc. The program contains daily classroom instruction with practical experience in food service preparation for public meetings and banquets.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Culinary Arts Requirements*

	Course	Credit Hours
CULN 0100	Equipment and the Industry	1
CULN 0120	Cooking Methods	2
CULN 0130	Food Production I	4
CULN 0140	Food Production II	4
CULN 0150	Food Production III	4
CULN 0160	International Cooking	2
CULN 0170	Menu Marketing and Planning	2
CULN 0190	Hospitality and Restaurant Management	3
CULN 0200	Inventory and Purchasing	2
CULN 0205	ServSafe	1
CULN 0206	Beginning Baking	3
CULN 0207	Advanced Baking	3
CULN 0220	Culinary Capstone	5
CULN 0230	Culinary Arts Internship	3
BUSN 0250	Obtaining Employment	1
*See course syllabi for Culinary Arts course prerequisites.		

Total Hours for a Culinary Arts Certificate	40
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Electrical Technology

Certificate

Program/CIP Code: ELEC.TCERTB/46.0302

Credits Required: 44

Division: TEC

Contact: TEC@kckcc.edu

Electrical Technology is a program that develops basic electrical skills, technical knowledge, and related occupational information to prepare for initial employment in the electrical trade. Students will begin with the basic fundamentals of electricity and progress through all types of residential, commercial and industrial wiring, including advanced solid state motor controls.

Requirements for admission to the program:

- Reading score of 60 or higher on the Accuplacer.
- Contact program for program-specific advising.

Electrical Technology Requirements*

Course		Credit Hours
ELET 0100	Safety (OSHA)	2
ELET 0101	Electromechanical Systems	3
ELET 0104	Print Reading	2
ELET 0105	Workplace Skills	1
ELET 0120	Electrical Math	3
ELET 0130	AC/DC Circuits I	4
ELET 0150	Residential Wiring I	4
ELET 0110	National Electrical Code I	4
ELET 0200	Commercial Wiring I	4
ELET 0232	Electrical Circuits, Instruments and Measurements	2
ELET 0245	Troubleshooting Techniques	2
ELET 0210	National Electric Code II	4
ELET 0253	Motor Controls	3
ELET 0255	Programmable Controllers	2
Electives (Selected by Instructor)		
ELET 0203	Analog Circuits (2hrs)	4
ELET 0240	HVAC Systems (2hrs)	
ELET 0265	Generators and Transformers (2hrs)	
*See course syllabi for Electrical Technology course prerequisites.		

Total Hours for an Electrical Technology Certificate	44
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Heating & Refrigeration

Certificate

Program/CIP Code: HVAC.TCERTB/47.0201

Credits Required: 44

Division: TEC

Contact: TEC@kckcc.edu

HVAC training is comprised of heating, ventilation, air conditioning and refrigeration. Fundamentals are emphasized, along with specific studies in central and room systems. Silver brazing, electrical and mechanical troubleshooting, and sheet metal techniques are also practiced. The program is approved for EPA and R-401A refrigerant certification.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Heating & Refrigeration Requirements*

Course		Credit Hours	
HVAC 0100	Safety Orientation (OSHA 10)	1	
HVAC 0103	Refrigeration System Components I	2	
HVAC 0105	Electrical Theory I	2	
HVAC 0106	Electrical Theory (Electricity & Components)	2	
HVAC 0107	Basic Sheet Metal	2	
HVAC 0115	HVAC Fundamentals	4	
HVAC 0120	Heating System Fundamentals	3	
HVAC 0125	Electrical Fundamentals	4	
HVAC 0130	Workplace Skills	1	
HVAC 0203	Heat Pump Systems	3	
HVAC 0204	System Servicing and Troubleshooting	2	
HVAC 0220	EPA 608	1	
HVAC 0225	Heating-Electric	2	
HVAC 0226	Cooling I	3	
HVAC 0228	Refrigeration I	3	
Electives (Selected by Instructor)			
HVAC 0102	Refrigeration Theory I (1hr)	9	
HVAC 0104	Refrigeration System Components II (2hrs)		
HVAC 0108	Basic Sheet Metal Layout/Fabrications (2hrs)		
HVAC 0215	Heating & Refrigeration Internship (3hrs)		
HVAC 0221	R-410A Safety Certification (Green Technology) (1hr)		
HVAC 0227	Cooling II (3hrs)		
HVAC 0229	Refrigeration II (3hrs)		
HVAC 0230	Special Projects I (2hrs)		
HVAC 0231	Special Projects II (3hrs)		
HVAC 0232	Electrical Controls (Motors) I (1hr)		
HVAC 0233	Electrical Controls (Motors) II (2hrs)		
HVAC 0235	Heating Geothermal (Green Technology) (1hr)		
*See course syllabi for Heating & Refrigeration course prerequisites.			

Total Hours for a Heating & Refrigeration Certificate	44
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Machine Technology

Certificate

Program/CIP Code: MACH.TCERTA/MACH.TCERTB/MACH.TCERTC/48.0501

Credits Required: 24/36/48

Division: TEC

Contact: TEC@kckcc.edu

This program prepares students to be competitive in today's global workforce and manufacturing industry. Teaching strategies include team building and efforts to support the manufacturing environment with projects such as the building of a motorcycle.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Machine Technology Requirements: Certificate A*

Course		Credit Hours
MACH 0101	OSHA 10-30	3
MACH 0102	Workplace Ethics	2
MACH 0103	Bench Work	1
MACH 0104	Industry Print Reading	3
MACH 0105	Quality Control and Inspection	1
MACH 0106	Metallurgy	1
MACH 0107	Machine Tool Processes	1
MACH 0108	Machine Fundamentals I	3
MACH 0109	Machine Fundamentals II	3
MACH 0110	CNC Operations I	3
MACH 0111	Mathematics for Manufacturing	3
*See course syllabi for Machine Technology course prerequisites.		

Total Hours for a Machine Technology Certificate A	24
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Machine Technology Requirements: Certificate B*

Course		Credit Hours
<i>Completion of Certificate A Requirements</i>		24
MACH 0201	Machining Fundamentals III	3
MACH 0202	Machining Fundamentals IV	3
MACH 0203	CNC Operations II	6
*See course syllabi for Machine Technology course prerequisites.		

Total Hours for a Machine Technology Certificate B	36
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Machine Technology Requirements: Certificate C*

Course		Credit Hours
<i>Completion of Certificate A and B Requirements</i>		<i>36</i>
MACH 0204	CAD/CAM I	4
MACH 0205	CAD/CAM II	4
MACH 0206	CAD/CAM III	4
*See course syllabi for Machine Technology course prerequisites.		
Total Hours for a Machine Technology Certificate C		48

Multimedia/Video Production

Certificate

Program/CIP Code: MMVP.TCERTB/10.0304

Credits Required: 30

Division: TEC

Contact: multimedivideo@kckcc.edu

This program features digital techniques for video production and editing, still photography, motion graphics, drone photography, 3D modeling and animation, audio editing and recording, and web development and animation with HTML5. Enrollees should have experience with Windows or Macintosh computers and experience navigating and using internet resources.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Multimedia/Video Production Technology Requirements*

Course		Credit Hours
MMVP0110	Introduction to Multimedia	3
MMVP0130	Introduction to Digital Imaging	3
MMVP0140	Introduction to Video Production	3
MMVP0150	Introduction to Animation	3
MMVP0160	Introduction to 3D Modeling	4
MMVP0166	Introduction to Web Animation	3
MMVP0170	Introduction to Game Design	3
MMVP0180	Audio for Video Production	3
MMVP0190	Digital Video Production	3
MMVP0201	Macintosh Digital Video Production	2
*See course syllabi for Multimedia/Video Production course prerequisites.		

Total Hours for a Multimedia/Video Production Technology Certificate	30
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Nail Technology

Certificate

Program/CIP Code: NAIL.TCERTA/47.0106

Credits Required: 16

Division: TEC

Contact: TEC@kckcc.edu

This program is designed to prepare individuals to become licensed nail technologists providing manicures, pedicures, acrylic nail enhancements, nail wraps, gel nails, and nail art. The curriculum includes both theory and practical application by training through a student-operated salon. Upon completion of the program, students are eligible to take the state licensing examination.

Requirements for admission to the program:

- Reading score of 60 or higher on the Accuplacer.
- Contact program for program-specific advising.

Nail Technology Requirements*

Course		Credit Hours
NAIL 0101	Scientific Concepts	3
NAIL 0105	Manicuring Skills	3
NAIL 0110	Artificial Nails	5
NAIL 0115	Business Practices	3
NAIL 0120	Kansas State Law Nail Technology	1
NAIL 0250	Obtaining Employment	1
*See course syllabi for Nail Technology course prerequisites.		

Total Hours for a Nail Technology Certificate	16
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Web Application & Design

Certificate

Program/CIP Code: WBAP.CERT/11.0801

Credits Required: 25

Division: TEC

Contact: CIST@kckcc.edu

This program provides students with basic knowledge necessary to develop and design an effective and functional website.

Requirements for Admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Web Application & Design Requirements*

Course		Credit Hours
CIST 0101	Computer Concepts and Applications	3
CIST 0117	Networking I	3
CIST 0137	HTML Web Page Development	3
CIST 0150	Web Graphics and Multimedia	3
CIST 0151	Structured Query Language (SQL)	3
CIST 0152	JavaScript	3
CIST 0180	Programming Algorithms	4
CIST 0272	Server Side Programing Using PHP	3
*See course syllabi for Web Application & Design course prerequisites.		

Total Hours for a Web Application & Design Certificate	25
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Welding Technology

Certificate

Program/CIP Code: WELD.TCERTA/WELD.TCERTB/48.0508

Credits Required: 20/40

Division: TEC

Contact: TEC@kckcc.edu

This program is designed to teach specific skills in all aspects of the welding trade, including blueprint reading, metallurgy, oxy-acetylene and semi-automatic cutting, brazing, and industry standard welding processes in a standard set of positions. Students learn welding processes to work with cast iron, brass, aluminum, stainless steel and alloy metals. Apprenticeship opportunities with over 10 skilled craft unions are available through the Construction Apprenticeship Tech Prep Consortium for graduates.

American Welding Society certification is available by appointment during the day at TEC. Program completers will be prepared for AWS certification in most processes. Individuals who have welding experience but desire AWS certification should call 913-288-7800 to make arrangements for evaluation and testing or review sessions.

Requirements for admission to the program:

- No requirements for admission to the program.
- Contact program for program-specific advising.

Welding Technology Requirements: Certificate A*

Course		Credit Hours
WELD 0100	Welding Safety	2
WELD 0105	Welding Blueprints	3
WELD 0110	Cutting Process	3
WELD 0120	SMAW I	3
WELD 0130	GMAW I	3
WELD 0140	GTAW I	3
WELD 0201	Oxy-Fuel Welding	1
WELD 0202	Intermediate Welding Techniques	1
BUSN 0250	Obtaining Employment	1
*See course syllabi for Welding Technology course prerequisites.		

Total Hours for a Welding Technology Certificate A	20
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Welding Technology Requirements: Certificate B*

Course		Credit Hours
<i>Completion of Certificate A Requirements</i>		<i>20</i>
WELD 0220	SMAW II	4
WELD 0230	GMAW II	4
WELD 0240	GTAW II	4
Electives (Selected by Instructor)		
WELD 0255	Aluminum Welding (4hrs)	8
WELD 0260	Stainless Steel Welding (4hrs)	
WELD 0265	Fabrication Welding (4hrs)	
WELD 0270	Automated Welding and Cutting (4hrs)	
WELD 0275	Pipe Welding (4hrs)	
WELD 0280	Welding Codes and Advanced Inspection (4hrs)	
WELD 0285	Internship (4hrs)	
*See course syllabi for Welding Technology course prerequisites.		

Total Hours for a Welding Technology Certificate B	40
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