



# WATC

WICHITA AREA  
TECHNICAL COLLEGE

COLLEGE CATALOG  
2016-2017

316.677.9400 | [www.WATC.edu](http://www.WATC.edu)



# Table of Contents

Mission, Vision and Values	5
Governance and Structure	6
Accreditation	6
Nondiscrimination	7
Educational Programs	7
Locations & Phone Numbers	9
Administrative Office Technology (Online), AAS	11
Advanced Auto Collision Repair, TC	12
Advanced Robotics Technology, TC	13
Aerospace Coatings and Paint, AAS	14
Aerospace Coatings and Paint, TC	15
Aerospace Manufacturing Technology, AAS	16
Aerospace Manufacturing Technology, TC	17
Airframe, TC	18
Architectural Design Technology, AAS	19
Architectural Design Technology, TC	20
Assembly Mechanic (Sheet Metal), TC	21
AutoCAD, COC	22
Auto Collision Repair, AAS	23
Auto Collision Repair, TC	24
Auto Service Technology, AAS	25
Auto Service Technology, COC	26
Auto Service Technology, TC	27
Aviation Maintenance Technology, AAS	28
Avionics, AAS	29
Avionics, COC	30
Avionics, TC	31
Basic Robotics Technology, TC	32
Business Administration, AAS	33
Carpentry, AAS	34
Carpentry Introduction, TC	35
Carpentry, TC	36
CATIA Machining, COC	37
CATIA Mechanical Engineering Design, COC	38



## Table of Contents continued

Certified Medication Aide, COC	39
Certified Medication Aide Update, COC	40
Certified Nurse Aide, COC	41
Certified Nurse Aide Update, COC	42
Chief Architect, COC	43
Climate & Energy Control Technologies, AAS	44
Climate & Energy Control Technologies, TC	45
CNC Operator, TC	46
Composite Fabrication, TC	47
Composite Repair, TC	48
Composite Technology, AAS	49
Dental Assistant, AAS	50
Dental Assistant, TC	51
Dental Assistant, COC	52
Engineering Design Technology, AAS	53
Engineering Design Technology, TC	54
Faux & Decorative Painting, COC	55
Floral Design, COC	56
Gas Metal Arc Welding, COC	57
Gas Tungsten Arc Welding, COC	58
Healthcare Admin & Management, AAS	59
Home Health Aide, COC	60
Industrial Automation and Machine Maintenance, AAS	61
Industrial Automation and Machine Maintenance, TC	62
Industrial Radiographer, COC	63
Interior Design, AAS	64
IT Essentials, COC	65
Kitchen & Bath Design, TC	66
Lubrication Technician and Oil Analyst, COC	67
Machining Technology, AAS	68
Machining Technology, TC	69
Manual Machining, TC	70
Massage Therapy, AAS	71
Massage Therapy, TC	72
Medical Assistant, TC	73

## Table of Contents continued

Medical Assisting, AAS	74
Medical Coding, AAS	75
Medical Coding, COC	76
Medical Coding, TC	77
Nondestructive Testing, AAS	78
Nondestructive Testing, TC	79
Operations Management and Supervision, AAS	80
Operations Management and Supervision, COC	81
Operations Management and Supervision, TC	82
Patient Care Technician, TC	83
PdMEntry-Level Technician, COC	84
Police Science, AAS	85
Police Science, TC	86
Powerplant, TC	87
Practical Nurse, TC	88
Predictive NDT Technologies, AAS	89
Predictive NDT Technologies, TC	90
Robotics, AAS	91
Robotics, TC	92
Shielded Metal Arc Welding, COC	93
Surgical Technology, AAS	94
Surgical Technology, TC	95
Thermographer, COC	96
Ultrasonic Technician, COC	97
Vibration Analyst, COC	98
Welding, AAS	99
Welding, TC	100
 COURSE DESCRIPTIONS	 101

Wichita Area Technical College (WATC) has been delivering excellence in education since 1965. WATC continues to build on this tradition with quality instructors, talented students and state-of-the-art technical equipment. Together, these elements help create a hands-on learning environment that promotes participation and prepares students for further education and/or career experiences.

## **Mission, Vision and Values**

### **Mission**

The mission of WATC is to provide quality higher education and leadership in workforce training that supports economic development for a global economy.

### **Vision**

WATC will be the leading provider of higher education, specializing in the delivery of career technical education, utilizing state-of-the-art facilities with highly qualified faculty, and offering a competitive advantage that drives economic development in the region.

### **Values**

To achieve our vision and fulfill our mission, Wichita Area Technical College has embraced the following values:

**Accountability:** WATC values the resources entrusted to it and will use them responsibly to support the college's mission.

**Quality:** WATC values an environment of professionalism and excellence for students, faculty, and staff to learn and work.

**Innovation:** WATC values cutting-edge technology and delivery methods to encourage lifelong learning within a rapidly changing society.

**Customer Service:** WATC values its customers as it strives to exceed their expectations, while responding to the needs of its various constituents.

**Equity/Diversity:** WATC values the diverse nature of its students, faculty and staff and seeks to treat each person with the utmost respect.

**Global Professional Standards:** WATC values and practices behaviors that promote responsible, successful, and ethical students, employees and citizens.

## **Governance and Structure**

### **Kansas Board of Regents**

The Kansas Board of Regents (KBOR) is comprised of nine members who are appointed by the governor of Kansas and confirmed by the Kansas Senate. KBOR governs six state universities and supervises and coordinates 19 community colleges, six technical colleges and a municipal university.

KBOR primarily deals with educational policies, programs, services, providers and other systems in an effort to improve and maintain the high quality of education in Kansas. KBOR also coordinates vital programs, such as adult literacy, qualified admissions, concurrent enrollment for high school students, financial assistance for education and many others. KBOR, in conjunction with the Kansas Postsecondary Technical Education Authority, approves technical programs offered by WATC.

### **Sedgwick County Technical Education and Training Authority**

Sedgwick County Technical Education and Training Authority (SCTETA) is the governing board for WATC. The board consists of 11 appointed, voting members who establish and publish policies, regulations and procedures pertaining to WATC.

## **Accreditation**

### **The Higher Learning Commission – North Central Association**

The Higher Learning Commission (HLC) is part of the North Central Association (NCA) of Colleges and Schools. NCA is one of six regional institutional accreditors in the United States. Through its Commissions, it accredits and thereby grants membership to educational institutions in the North Central region.

Wichita Area Technical College is fully accredited by The Higher Learning Commission and a member of the North Central Association as of October 2008.

The Higher Learning Commission  
230 South LaSalle Street, Suite 7-500 Chicago, IL 60604-1411  
Phone: 800.621.7440 / 312.263.0456  
Fax: 312.263.7462  
[ncahlc.org](http://ncahlc.org)

## **Nondiscrimination**

Wichita Area Technical College does not discriminate with regard to race, color, national origin, sex, handicap/disability, religion or age. Persons having inquiries may contact the Human Resources director, 4004 N. Webb Rd, Wichita, KS 67226, 316.677.9400.

Wichita Area Technical College intends to comply with all applicable federal, state and local laws and regulations, including but not limited to: the Civil Rights Act of 1964, as amended; the Americans With Disabilities Act of 1990; the Age Discrimination in Employment Act of 1967; the Drug-Free Schools and Campuses Act; the Campus Security Act (Jeanne Cleary Act), as amended; the Family Educational Rights and Privacy Act of 1974, as amended; and the Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance rules.

Persons having inquiries may contact the Human Resources director, 4004 N. Webb Rd, Wichita, KS 67226, 316.677.9400.

## **Educational Programs**

Students have many educational opportunities at WATC and are encouraged to select the program or course of study that best meets their needs. These opportunities include general education courses and associate of applied science (AAS) degrees, technical certificates of completion. Students may also opt to select courses that focus on particular technical skills instead of registering in a complete program.

### **Associate of Applied Science Degrees**

AAS degree programs are designed to provide students with the knowledge and skills needed to enter the workforce, advance within their chosen careers or further their education. To be awarded the AAS degree, students must successfully complete a minimum of 60 credit hours — a combination of technical and general education hours.

Although AAS degrees are designed to prepare students for employment, technical credits may transfer to other colleges or universities. The Vice President, Academic Affairs may approve alternative general education courses and acceptance of transfer credits or work experience.

WATC offers the following AAS programs:

- Administrative Office Technology
- Air Conditioning Technology
- Aerospace Coatings & Paint Technology
- Applied Science of Aviation Manufacturing
- Architectural Design Technology
- Auto Collision Repair
- Automotive Service Technology
- Aviation Maintenance Technology
- Avionics Technology
- Business Administration
- Carpentry
- Climate and Energy Control Technology
- Composite Technology
- Dental Assistant
- Engineering Design Technology
- Healthcare Admin. & Management
- Industrial Automation & Machine Maintenance
- Interior Design
- Machining Technology
- Medical Assistant
- Medical Coding
- Nondestructive Testing
- Police Science
- Predictive NDT Technologies
- Robotics
- Surgical Technology
- Veterinary Technician
- Welding

General Education

WATC’s philosophy and approach to general education promotes the appreciation for lifelong learning necessary to support the professional, academic, and personal success of students. Every degree program incorporates general education courses designed to prepare students with a foundation in computers, written and verbal communication, mathematics, natural sciences and social sciences. These themes are also integrated and applied through the core curriculum in WATC’s technical certificate programs.

WATC provides general education courses required for its degree programs. These courses are taught with curricula that meet or exceed state core curriculum standards approved by KBOR and are taught by instructors with the appropriate credentials. WATC’s general education courses that lead to the AAS degree are interspersed throughout the program with various instructional delivery methods that allow flexibility for student schedules.

WATC’s technical coursework provides a knowledge base in the application of natural sciences and fosters a tendency to think using an analytical and problem-solution approach; however, what students learn in technical courses is not the only knowledge they need nor is it the only way of thinking. Students will encounter people in their professional and personal lives that will challenge them in other ways — politically, aesthetically, emotionally and morally. General education courses are designed to support and further students’ comfort level in dealing with differing opinions and appreciating other ways of thinking.

Technical Certificates

Technical certificate programs provide the knowledge and skills needed to enter the workforce. Students who wish to pursue an AAS degree may transfer most of these courses and credits to an AAS degree program at WATC.

Certificates of Completion

Certificate of Completion programs provide the knowledge and skills required in today’s competitive and changing workforce. Programs vary in length from a few days to several months.

**Policies and Procedures**

Chapter 1	Organization
Chapter 2	Personnel Policies
Chapter 3	Students
Chapter 4	Fiscal
Chapter 5	Academic
Chapter 6	Buildings and Grounds
Chapter 7	Safety and Security
Chapter 8	Marketing
Chapter 9	Information Technology
Chapter 10	Foundation and Grants
Chapter 11	Workforce



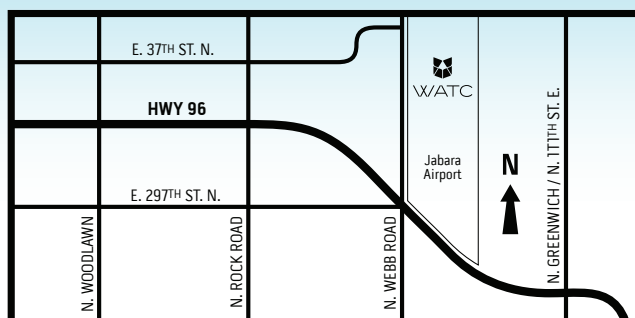
## Locations & Phone Numbers

General Information	316.677.9400
Fax	316.677.9555
Website	www.WATC.edu
Emergency Closing Hotline (also visit www.WATC.edu)	316.677.9596

### NATIONAL CENTER FOR AVIATION TRAINING/JABARA

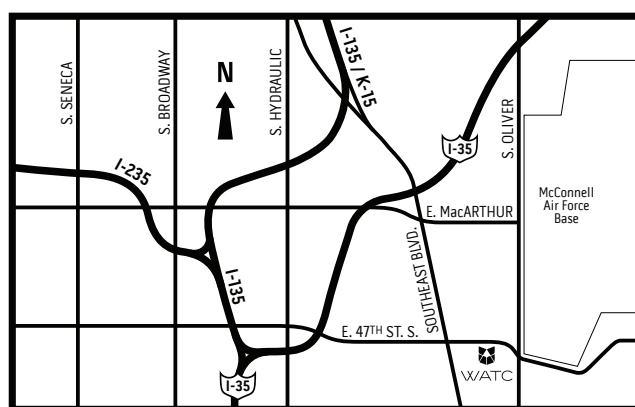
4004 N. Webb Road | Wichita, KS 67226 | 316.677.9400

General Information	316.677.9400
Academic Success/Tutoring	316.677.9440
Admissions	316.677.9400
Bookstore	316.677.9459
Business Office	316.677.9511
Disability Services/Accommodation Requests	316.677.1912
Financial Aid	316.677.9400
Online Learning	316.677.9400
Registrar	316.677.9400
Student IT Helpdesk	316.677.9906
Student Success Services/Career Services	316.677.9520
Testing Services	316.677.9506
Workforce Education and Development	316.677.1404
AO-K Program	316.677.1811



#### National Center for Aviation Training/Jabara Directions

- Go north on I-135 to 96-E.
- Turn north onto Webb Road.
- Go east on 96-E and exit on Webb Road.
- Turn right after 39th Street North.



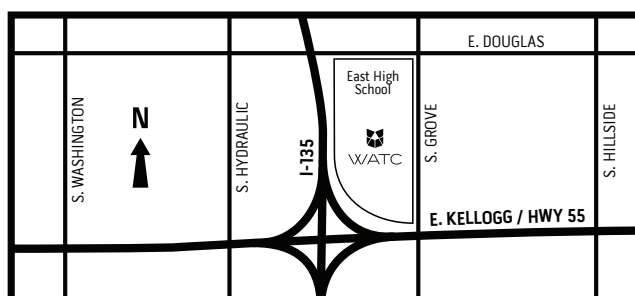
#### Southside Center Directions

- Go south on I-135 / K-15.
- Take Exit 3A and merge onto K-15 S / Southeast Boulevard.
- Go southeast on K-15 / Southeast Boulevard to 47th St.
- Go east on 47th Street South (south side of street).

### SOUTHSIDE CENTER

4501 East 47th Street South | Wichita, KS 67210 | 316.677.9400

General Information	316.677.1500
Academic Success/Tutoring	316.677.9440
Admissions	316.677.9400
Bookstore	316.677.9459
Business Office	316.677.1941
Disability Services/Accommodation Requests	316.677.1912
Financial Aid	316.677.9400
Library	316.677.9492
Online Learning	316.677.9400
Registrar	316.677.9400
Student Success Services/Career Services	316.677.9520
Testing Services	316.677.9492



#### Grove Campus Directions from East

- Go west on Kellogg (US Hwy 54) to Grove exit.
- Go north on Grove approximately one block (west side of street).

#### Grove Campus Directions from West

- Go east on Kellogg to Washington exit.
- Go north on Washington to Douglas.
- Go east on Douglas to Grove.
- Go south on Grove approximately two blocks (west side of street).

### GROVE CAMPUS

301 S. Grove | Wichita, KS 67211 | 316.677.9400

Adult Literacy/GED	316.677.1150
General Information	316.677.9440
AO-K Program	316.677.1811



# WATC

WICHITA AREA  
TECHNICAL COLLEGE

**PROGRAMS OF STUDY**

# Administrative Office Technology (Online), AAS

CRN	COURSE NAME	CREDITS
BUS 104	Introduction to Business	3.00
CED 102	Keyboarding	1.00
CED 115	Computer Applications	3.00
ENG 101	Composition I	3.00
PDV 105	Global Professional Standards	2.00
BUS 106	Office Procedures	3.00
BUS 130	Personal Finance	3.00
ENG 120	Composition II	3.00
SPH 101	Public Speaking	3.00
	Computer Elective	3.00
	Social Science Elective	3.00
HUMN	Humanities Elective 1	3.00
BUS 121	Business Communications	3.00
BUS 200	Principles of Management	3.00
ECO 110	Principles of Microeconomics	3.00
MTH 101	Intermediate Algebra	3.00
	Science Elective	5.00
ACC 105	Fundamentals of Accounting	3.00
CED 125	Introduction to Desktop Publishing	3.00
ECO 105	Principles of Macroeconomics	3.00
PHL 110	Ethics	3.00
OPM 115	Introduction to Project Management	3.00
<b>Total</b>		<b>65.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
June August October	January March
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.9400    Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$6,317.00
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	
SUCCESS RATE	
<p>This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.</p>	
Eligible graduates contacted in follow-up study	NA
Placement rate	NA
WAGES	
<p>BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.</p>	
Annually \$36,500	Hourly \$17.55

# Advanced Auto Collision Repair, TC

CRN			COURSE NAME	CREDITS
TAC	131	Structural A&D Repair 1		2.00
TAC	132	Structural A&D Repair 2		2.00
TAC	133	Structural A&D Repair 3		3.00
TAC	134	Structural A&D Repair 4		3.00
TAC	160	Mechanical & Electrical		3.00
CED	101	Computer Essentials		2.00
TAC	141	Paint & Refinishing 1		3.00
TAC	142	Paint & Refinishing 2		3.00
TAC	143	Paint & Refinishing 3		3.00
TAC	151	Non-structural A&D Repair 1		4.00
TAC	152	Non-structural A&D Repair 2		4.00
TAC	153	Non-structural A&D Repair 3		4.00
TAC	154	Non-structural A&D Repair 4		5.00
MTH	020	Math Fundamentals		3.00
TAC	144	Paint & Refinishing 4		4.00
TAC	161	Mechanical & Electrical 2		3.00
Total				51.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus	
301 S. Grove   Wichita, KS 67211	
316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$9,049.00
<small>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</small>	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	14
Placement rate	92%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$50,240	\$24.15



# Advanced Robotics Technology, TC

CRN		COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation	0.00
AVC	110	Safety/OSHA 10	1.00
ROB	100	Introduction to Robotics	3.00
ROB	103	Applied Robotics Lab I	3.00
MTH	112	College Algebra	3.00
ROB	101	Manufacturing Control & Work Cell Interfacing	2.00
ROB	104	Robotics Simulation	2.00
MTH	113	Trigonometry	3.00
ROB	102	Work Cell Design Laboratory	1.00
ROB	106	Robotics Controller Maintenance	3.00
ROB	111	Advanced Robot Controller Programming	2.00
PDV	105	Global Professional Standards	2.00
PHS	120	General Physics I	5.00
ROB	110	Applied Robotics Lab II	3.00
ROB	125	Advanced Industrial Workcell Programming	3.00
Total			36.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$6,920.00

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Aerospace Coatings and Paint, AAS

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 103	Geometric Dimensioning & Tolerancing	1.00
AVC 104	Quality Control Concepts	1.00
AVC 105	Aircraft Familiarization	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 108	Aircraft Systems & Components	4.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
PDV 105	Global Professional Standards	2.00
CED 115	Computer Applications	3.00
	Communication Elective	3.00
ACP 100	Introduction to Coatings & Paint Technology	3.00
ACP 101	Surface Preparation & Coatings	4.00
ACP 102	Performance & Durability of Coatings	3.00
ACP 103	Color Technology	3.00
ACP 104	Specialized Coating Processes	3.00
ACP 105	Specialized Detailing	3.00
ACP 106	Aerospace Coatings & Materials	3.00
ACP 107	Aerospace Program Management	3.00
ENG 101	Composition I	3.00
ACP 111	Technical Co-Operative Project	4.00
CHM 110	General Chemistry	5.00
MTH 101	Intermediate Algebra	3.00
	Social Science Elective	3.00
<b>Total</b>		<b>63.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

June	January
August	March
October	

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$12,127.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	3
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$44,800	\$21.54

# Aerospace Coatings and Paint, TC

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 103	Geometric Dimensioning & Tolerancing	1.00
AVC 104	Quality Control Concepts	1.00
AVC 105	Aircraft Familiarization	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 108	Aircraft Systems & Components	4.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
PDV 105	Global Professional Standards	2.00
CED 101	Computer Essentials	2.00
MTH 020	Math Fundamentals	3.00
ACP 100	Introduction to Coatings & Paint Technology	3.00
ACP 101	Surface Preparation & Coatings	4.00
ACP 102	Performance & Durability of Coatings	3.00
ACP 103	Color Technology	3.00
ACP 104	Specialized Coating Processes	3.00
ACP 105	Specialized Detailing	3.00
ACP 106	Aerospace Coatings & Materials	3.00
ACP 107	Aerospace Program Management	3.00
ACP 111	Technical Co-Operative Project	4.00
<b>Total</b>		<b>48.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,553.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	3
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$44,800	Hourly \$21.54

# Aerospace Manufacturing Technology, AAS

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 102	Precision Instruments	1.00
AVC 104	Quality Control Concepts	1.00
AVC 105	Aircraft Familiarization	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
AVC 120	Introduction to Sealing	1.00
AVC 125	Bonding and Grounding	1.00
AVC 135	Hand Tools	1.00
PDV 105	Global Professional Standards	2.00
	Technical Elective Credits - Minimum 9	9.00
BUS 121	Business Communications	3.00
CED 115	Computer Applications	3.00
MTH 101	Intermediate Algebra	3.00
	Technical Elective Credits - Minimum 6	6.00
ENG 101	Composition I	3.00
	Science Elective	5.00
	Technical Elective Credits - Minimum 6	6.00
LEN 100	Lean for Operations	3.00
NDT 114	Visual Inspection	3.00
	Communication Elective	3.00
	Social Science Elective	3.00
<b>Tehcnical Electives</b>		
AER 106	Aerospace Manufacturing Tooling Orientation	0.00
AER 111	Tap and Die	0.00
AER 115	Aerostructures Assembly	0.00
AER 116	Hand Power Tools for Aerospace Tooling	0.00
AER 126	Tooling Capstone	0.00
AER 135	Quality Assurance Orientation	0.00
AER 140	Assembly Mechanic Orientation	0.00
AER 150	Assembly Overview	0.00
AER 155	Aerospace Plumbing	0.00
AER 165	Electrical Assembly Mechanic Orientation	0.00
AER 166	Electrical Hand Tools	0.00
AER 167	Drilling & Riveting/Ground Stud Installation	0.00
AER 168	Wire Installation Drawings	0.00
AER 169	Crimping & Cables	0.00
AER 170	Fiber Optics for Aerospace	0.00
AER 175	Wire Bundle Basics	0.00
AER 180	Soldering	0.00
AER 185	Wire Bundle Installation	0.00
AVC 103	Geometric Dimensioning & Tolerancing	0.00
AVC 108	Aircraft Systems & Components	0.00
AVC 140	Electrical Bonding & Grounding	0.00
AVC 145	Power Island	0.00
AVC 150	Human Factors	0.00
AVC 165	Technical Writing	0.00
AVC 170	Conflict Resolution	0.00
CFT 101	Introduction to Composites	0.00
CFT 135	Overview Of Composite Inspection	0.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$11,276.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$37,390	Hourly \$17.97



# Aerospace Manufacturing Technology, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 102	Precision Instruments	1.00
AVC 104	Quality Control Concepts	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
AVC 120	Introduction to Sealing	1.00
AVC 125	Bonding and Grounding	1.00
AVC 135	Hand Tools	1.00
AVC 140	Electrical Bonding & Grounding	1.00
MTH 020	Math Fundamentals	3.00
PDV 105	Global Professional Standards	2.00
AER 140	Assembly Mechanic Orientation	1.00
AER 115	Aerostructures Assembly	6.00
AVC 105	Aircraft Familiarization	1.00
AVC 145	Power Island	1.00
AVC 103	Geometric Dimensioning & Tolerancing	1.00
AVC 108	Aircraft Systems & Components	4.00
AVC 150	Human Factors	1.00
CFT 101	Introduction to Composites	2.00
<b>Total</b>		<b>32.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watac.edu/campuses">watac.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$7,650.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$37,390	Hourly \$17.97

# Airframe, TC

CRN	COURSE NAME	CREDITS
AMT 105	Technical Mathematics	2.00
AMT 107	Aircraft Drawings	1.00
AMT 109	Physics	2.00
AMT 111	Materials & Processes	4.00
AMT 113	Basic Electricity	4.00
AMT 115	Weight & Balance	2.00
AMT 117	Mechanics Privileges & Limitations	1.00
AMT 119	Maintenance Publications, Forms, & Records	2.00
AMT 123	Cleaning & Corrosion Control	1.00
AMT 125	Fluid Lines & Fittings	1.00
AMT 127	Ground Operations & Servicing	2.00
AMT 131	General Review & Test	0.00
AMT 179	Aircraft Sheet Metal & Non-Metallic Structures	7.00
AMT 177	Wood Structures	1.00
AMT 108	Aircraft Coverings	2.00
AMT 183	Aircraft Finishes	2.00
AMT 167	Aircraft Welding	2.00
AMT 159	Aircraft Fuel Systems	2.00
AMT 153	Hydraulic & Pneumatic Power Systems	2.00
AMT 112	Assembly & Rigging	4.00
AMT 155	Aircraft Landing Gear Systems	3.00
AMT 173	Position & Warning Systems	1.00
AMT 151	Aircraft Electrical Systems	5.00
AMT 161	Fire Protection Systems	1.00
AMT 163	Ice & Rain Control Systems	1.00
AMT 165	Cabin Atmosphere Control Systems	2.00
AMT 116	Aircraft Instrument Systems	1.00
AMT 169	Communication & Navigation Systems	2.00
AMT 120	Airframe Inspection	2.00
AMT 186	Airframe Review & Test	3.00
<b>Total</b>		<b>65.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

START DATES	
August May	January
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watac.edu/campuses">watac.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$15,681.00</b>
<p>*Cost does not include online fees, books or tools.</p> <p>Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required. <b>All AMT program students are required to purchase tool kits via WATC. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WATC.</b></p>	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	67
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$58,390	Hourly \$28.07

# Architectural Design Technology, AAS

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 112	Blueprint Reading	2.00
MCD 101	Introduction to CAD I	3.00
MCD 102	Introduction to CAD II	2.00
MCD 105	Technical Drafting I	1.00
MCD 114	Architectural Drafting & Design	3.00
MCD 115	Machine Drafting & Design	3.00
MCD 121	Descriptive Geometry	3.00
MCD 124	Advanced AutoCAD	4.00
PDV 105	Global Professional Standards	2.00
MCD 112	Industrial Materials & Processes	2.00
MCD 122	Architectural CAD	4.00
MCD 132	Basic Chief Architect/Architectural Desktop	3.00
MCD 134	Advanced Chief Architect/Architectural Desktop	3.00
CED 115	Computer Applications	3.00
MTH 101	Intermediate Algebra	3.00
	Communication Elective	3.00
MCD 205	Residential Drafting	3.00
MCD 206	Commercial Drafting & Design	3.00
ENG 101	Composition I	3.00
	Social Science Elective	3.00
	Technical Elective Credits - 4	4.00
<b>Technical Electives</b>		
MCD 140	Drafting Internship	0.00
CAT 101	CATIA Parts Design & Sketcher	0.00
<b>Total</b>		<b>60.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 North Webb Road   Wichita, KS 67226 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,751.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	1
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$45,580	Hourly \$21.91

# Architectural Design Technology, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 112	Blueprint Reading	2.00
MCD 101	Introduction to CAD I	3.00
MCD 102	Introduction to CAD II	2.00
MCD 105	Technical Drafting I	1.00
MCD 114	Architectural Drafting & Design	3.00
MCD 115	Machine Drafting & Design	3.00
MCD 121	Descriptive Geometry	3.00
MCD 124	Advanced AutoCAD	4.00
PDV 105	Global Professional Standards	2.00
MCD 112	Industrial Materials & Processes	2.00
MCD 122	Architectural CAD	4.00
MCD 132	Basic Chief Architect/Architectural Desktop	3.00
MCD 134	Advanced Chief Architect/Architectural Desktop	3.00
CED 101	Computer Essentials	2.00
MTH 101	Intermediate Algebra	3.00
	Communication Elective	3.00
<b>Total</b>		<b>43.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 North Webb Road   Wichita, KS 67226 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$7,862.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	1
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$45,580	Hourly \$21.91



# Assembly Mechanic (Sheet Metal), TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 102	Precision Instruments	1.00
AVC 104	Quality Control Concepts	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
AVC 120	Introduction to Sealing	1.00
AVC 125	Bonding and Grounding	1.00
AVC 135	Hand Tools	1.00
AVC 140	Electrical Bonding & Grounding	1.00
MTH 020	Math Fundamentals	3.00
PDV 105	Global Professional Standards	2.00
AER 140	Assembly Mechanic Orientation	1.00
AER 115	Aerostructures Assembly	6.00
AVC 105	Aircraft Familiarization	1.00
AVC 145	Power Island	1.00
<b>Total</b>		<b>24.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$5,889.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	86
Placement rate	92%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$45,750	Hourly \$21.99

# AutoCAD, COC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
MCD 101	Introduction to CAD I	3.00
MCD 102	Introduction to CAD II	2.00
MCD 124	Advanced AutoCAD	4.00
PDV 105	Global Professional Standards	2.00
MTH 101	Intermediate Algebra	3.00
<b>Total</b>		<b>14.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 North Webb Road   Wichita, KS 67226 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$2,353.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Auto Collision Repair, AAS

CRN	COURSE NAME	CREDITS
TAC 131	Structural A&D Repair 1	2.00
TAC 132	Structural A&D Repair 2	2.00
TAC 133	Structural A&D Repair 3	3.00
TAC 134	Structural A&D Repair 4	3.00
PDV 105	Global Professional Standards	2.00
CED 115	Computer Applications	3.00
ENG 101	Composition I	3.00
TAC 141	Paint & Refinishing 1	3.00
TAC 142	Paint & Refinishing 2	3.00
TAC 143	Paint & Refinishing 3	3.00
TAC 151	Non-structural A&D Repair 1	4.00
TAC 152	Non-structural A&D Repair 2	4.00
TAC 153	Non-structural A&D Repair 3	4.00
TAC 154	Non-structural A&D Repair 4	5.00
TAC 160	Mechanical & Electrical	3.00
MTH 101	Intermediate Algebra	3.00
TAC 144	Paint & Refinishing 4	4.00
TAC 161	Mechanical & Electrical 2	3.00
PSY 101	General Psychology	3.00
	Communication Elective	3.00
<b>Total</b>		<b>63.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,261.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	14
Placement rate	93%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$50,240	Hourly \$24.15

# Auto Collision Repair, TC

CRN	COURSE NAME	CREDITS
TAC 131	Structural A&D Repair 1	2.00
TAC 132	Structural A&D Repair 2	2.00
TAC 133	Structural A&D Repair 3	3.00
TAC 134	Structural A&D Repair 4	3.00
MTH 020	Math Fundamentals	3.00
TAC 141	Paint & Refinishing 1	3.00
TAC 142	Paint & Refinishing 2	3.00
TAC 143	Paint & Refinishing 3	3.00
TAC 151	Non-structural A&D Repair 1	4.00
TAC 152	Non-structural A&D Repair 2	4.00
TAC 153	Non-structural A&D Repair 3	4.00
TAC 154	Non-structural A&D Repair 4	5.00
TAC 144	Paint & Refinishing 4	4.00
Total		43.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$7,855.00
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	14
Placement rate	93%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$50,240	Hourly \$24.15



# Auto Service Technology, AAS

CRN	COURSE NAME	CREDITS
TAS 124	Electrical I	3.00
TAS 125	Electrical II	5.00
TAS 126	Manual Transmission/Transaxle & Drive Train	4.00
TAS 136	Suspension and Steering I	3.00
TAS 137	Suspension and Steering II	2.00
CED 115	Computer Applications	3.00
PDV 105	Global Professional Standards	2.00
TAS 121	Engine Repair	4.00
TAS 131	Engine Performance I	3.00
TAS 132	Engine Performance II	5.00
TAS 133	Brakes I	3.00
TAS 134	Brakes II	1.00
TAS 135	Automotive Computer Systems	3.00
MTH 101	Intermediate Algebra	3.00
PSY 101	General Psychology	3.00
TAS 127	Automatic Transmission Repair	4.00
TAS 128	Heating & Air Conditioning	4.00
ENG 101	Composition I	3.00
	Communication Elective	3.00
<b>Total</b>		<b>61.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$9,946.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted	
in follow-up study	23
Placement rate	96%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$37,850	\$18.20

# Auto Service Technology, COC

CRN	COURSE NAME	CREDITS
TAS 136	Suspension and Steering I	3.00
TAS 124	Electrical I	3.00
TAS 131	Engine Performance I	3.00
TAS 133	Automotive Brake Systems I	3.00
PDV 105	Global Professional Standards	2.00
TAS 128	Heating & Air Conditioning	4.00
Total		18.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>

COSTS*
<b>PROGRAM TOTAL</b> <b>\$3,371.00</b>
<small>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</small>

# Auto Service Technology, TC

CRN	COURSE NAME	CREDITS
TAS 136	Suspension and Steering I	3.00
TAS 137	Suspension and Steering II	2.00
TAS 124	Electrical I	3.00
TAS 125	Electrical II	5.00
TAS 126	Manual Transmission/Transaxle & Drive Train	4.00
CED 101	Computer Essentials	2.00
PDV 105	Global Professional Standards	2.00
TAS 121	Engine Repair	4.00
TAS 131	Engine Performance I	3.00
TAS 132	Engine Performance II	5.00
TAS 133	Brakes I	3.00
TAS 134	Brakes II	1.00
TAS 135	Automotive Computer Systems	3.00
MTH 020	Math Fundamentals	3.00
TAS 127	Automatic Transmission Repair	4.00
TAS 128	Heating & Air Conditioning	4.00
<b>Total</b>		<b>51.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$8,936.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	23
Placement rate	96%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$37,850	Hourly \$18.20

# Aviation Maintenance Technology, AAS

CRN	COURSE NAME	CREDITS
AMT 105	Technical Mathematics	2.00
AMT 107	Aircraft Drawings	1.00
AMT 109	Physics	2.00
AMT 111	Materials & Processes	4.00
AMT 113	Basic Electricity	4.00
AMT 115	Weight & Balance	2.00
AMT 117	Mechanics Privileges & Limitations	1.00
AMT 119	Maintenance Publications, Forms, & Records	2.00
AMT 123	Cleaning & Corrosion Control	1.00
AMT 125	Fluid Lines & Fittings	1.00
AMT 127	Ground Operations & Servicing	2.00
AMT 131	General Review & Test	0.00
MTH 101	Intermediate Algebra	3.00
AMT 108	Aircraft Coverings	2.00
AMT 112	Assembly & Rigging	4.00
AMT 153	Hydraulic & Pneumatic Power Systems	2.00
AMT 159	Aircraft Fuel Systems	2.00
AMT 167	Aircraft Welding	2.00
AMT 177	Wood Structures	1.00
AMT 179	Aircraft Sheet Metal & Non-Metallic Structures	7.00
AMT 183	Aircraft Finishes	2.00
CED 115	Computer Applications	3.00
AMT 116	Aircraft Instrument Systems	1.00
AMT 161	Fire Protection Systems	1.00
AMT 163	Ice & Rain Control Systems	1.00
AMT 165	Cabin Atmosphere Control Systems	2.00
AMT 169	Communication & Navigation Systems	2.00
AMT 173	Position & Warning Systems	1.00
	Social Science Elective	3.00
AMT 155	Aircraft Landing Gear Systems	3.00
AMT 151	Aircraft Electrical Systems	5.00
AMT 120	Airframe Inspection	2.00
AMT 186	Airframe Review & Test	3.00
AMT 136	Propellers	4.00
AMT 200	Reciprocating Engines	9.00
AMT 204	Engine Fuel Systems	1.00
AMT 206	Auxiliary Power Units	1.00
AMT 227	Turbine Engines	8.00
ENG 101	Composition I	3.00
AMT 202	Engine Inspection	2.00
AMT 203	Powerplant Ignition Systems	3.00
AMT 208	Engine Electrical Systems	2.00
AMT 211	Powerplant Cooling Systems	1.00
AMT 217	Induction Systems	1.00
AMT 223	Powerplant Fire Protection Systems	1.00
AMT 225	Powerplant Instrument Systems	1.00
SPH 111	Interpersonal Communication	3.00
AMT 207	Fuel Metering Systems	3.00
AMT 219	Powerplant Exhaust Systems	1.00
AMT 231	Powerplant Test & Review	3.00
AMT 213	Lubrication Systems	2.00
<b>Total</b>		<b>123.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August May	January
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$26,806.00</b>
<p>*Cost does not include online fees, books or tools.</p> <p>Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required. <b>All AMT program students are required to purchase tool kits via WATC. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WATC.</b></p>	
SUCCESS RATE	
<p>This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.</p>	
Eligible graduates contacted	
in follow-up study	17
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$60,160	\$28.92

# Avionics, AAS

CRN	COURSE NAME		CREDITS
AVT	101	Basic Electricity & Electronics	3.00
AVT	102	Basic Electricity & Electronics Lab	3.00
AVT	103	Introduction to Avionics	3.00
AVT	107	Basic Communications Electronics	3.00
AVT	108	Wiring & Cannon Plug Lab	2.00
AVT	115	Basic Communications Electronics Lab	3.00
CED	115	Computer Applications	3.00
PDV	105	Global Professional Standards	2.00
AVT	105	Avionics Systems & Troubleshooting	2.00
AVT	106	Avionics Systems & Troubleshooting Lab	3.00
AVT	110	Aircraft Electrical, Communication, & Navigation Systems (Part I)	3.00
AVT	111	Aircraft Electrical, Communication, & Navigation Systems (Part I ) Lab	3.00
AVT	112	Aircraft Electrical, Communication, & Navigation Systems (Part II)	2.00
AVT	113	Aircraft Electrical, Communication, & Navigation Systems (Part II) Lab	3.00
AVT	125	Digital Electronics Fundamentals	2.00
AVT	126	Digital Electronics Fundamentals Lab	2.00
ENG	101	Composition I	3.00
MTH	112	College Algebra	3.00
AVT	122	Practical Electronics Technology for NCATT Applications	4.00
AVT	135	Advanced Analog & Digital Communications	2.00
AVT	136	Advanced Analog & Digital Communication Lab	2.00
PSY	101	General Psychology	3.00
		Communication Elective	3.00
Total			62.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August January

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$13,718.00**

\*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	11
Placement rate	78%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$62,340	\$29.97

# Avionics, COC

CRN		COURSE NAME	CREDITS
AVT	101	Basic Electricity & Electronics	3.00
AVT	102	Basic Electricity & Electronics Lab	3.00
AVT	103	Introduction to Avionics	3.00
AVT	108	Wiring & Cannon Plug Lab	2.00
MTH	101	Intermediate Algebra	3.00
Total			14.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	January
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$2,921.00
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	11
Placement rate	78%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$62,340	Hourly \$29.97

# Avionics, TC

CRN	COURSE NAME	CREDITS
AVT 101	Basic Electricity & Electronics	3.00
AVT 102	Basic Electricity & Electronics Lab	3.00
AVT 103	Introduction to Avionics	3.00
AVT 107	Basic Communications Electronics	3.00
AVT 108	Wiring & Cannon Plug Lab	2.00
AVT 115	Basic Communications Electronics Lab	3.00
MTH 101	Intermediate Algebra	3.00
AVT 105	Avionics Systems & Troubleshooting	2.00
AVT 106	Avionics Systems & Troubleshooting Lab	3.00
AVT 110	Aircraft Electrical, Communication, & Navigation Systems (Part I)	3.00
AVT 111	Aircraft Electrical, Communication, & Navigation Systems (Part I ) Lab	3.00
AVT 112	Aircraft Electrical, Communication, & Navigation Systems (Part II)	2.00
AVT 113	Aircraft Electrical, Communication, & Navigation Systems (Part II) Lab	3.00
AVT 125	Digital Electronics Fundamentals	2.00
PDV 105	Global Professional Standards	2.00
AVT 126	Digital Electronics Fundamentals Lab	2.00
<b>Total</b>		<b>42.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August January

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL \$10,959.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted  
in follow-up study 11  
Placement rate 78%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually Hourly  
\$62,340 \$29.97



# Basic Robotics Technology, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 110	Safety/OSHA 10	1.00
ROB 100	Introduction to Robotics	3.00
ROB 103	Applied Robotics Lab I	3.00
MTH 112	College Algebra	3.00
PDV 105	Global Professional Standards	2.00
ROB 101	Manufacturing Control & Work Cell Interfacing	2.00
ROB 104	Robotics Simulation	2.00
<b>Total</b>		<b>16.00</b>

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$3,349.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

# Business Administration, AAS

CRN	COURSE NAME	CREDITS
ACC 105	Fundamentals of Accounting	3.00
ART 100	Art Appreciation	3.00
BUS 104	Introduction to Business	3.00
ENG 101	Composition I	3.00
CED 115	Computer Applications	3.00
	Elective Credits - 3	3.00
ACC 160	Principles of Accounting I	3.00
BUS 130	Personal Finance	3.00
ENG 120	Composition II	3.00
HIS 120	United States History since 1865	3.00
OPM 115	Introduction to Project Management	3.00
PSY 101	General Psychology	3.00
ACC 170	Principles of Accounting II	3.00
BUS 200	Principles of Management	3.00
MTH 101	Intermediate Algebra	3.00
MTH 112	College Algebra	3.00
SPH 101	Public Speaking	3.00
ECO 105	Principles of Macroeconomics	3.00
PHL 115	Logic	3.00
ACC 130	Managerial Accounting	3.00
	Science Elective	5.00
<b>Electives</b>		
ACC 152	Payroll Accounting	0.00
BAF 105	Introduction To US Financial System	0.00
BIO 120	Environmental Biology	0.00
BUS 121	Business Communication	0.00
BUS 125	Business Law	0.00
ENT 110	Introduction to Entrepreneurship	0.00
MTH 120	Elementary Statistics	0.00
PSS 100	Six Sigma Yellow Belt	0.00
PSS 101	Six Sigma Green Belt Methods	0.00
PSS 105	Six Sigma Green Belt Statistics	0.00
SOC 101	Principles of Sociology	0.00
<b>Total</b>		<b>65.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.9400 Get maps at <a href="http://watac.edu/campuses">watac.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$6,317.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted	
in follow-up study	9
Placement rate	89%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$34,770	\$16.72

# Carpentry, AAS

CRN	COURSE NAME	CREDITS
SAF 101	Safety Orientation/OSHA 10	1.00
CCP 100	Introductory Craft Skills	3.00
CCP 105	Carpentry Basics	4.00
CCP 110	Floors, Walls, & Ceiling Framing	4.00
CCP 115	Roof Framing	3.00
CCP 120	Windows, Doors, & Stairs	3.00
PDV 105	Global Professional Standards	2.00
CCP 180	Cabinet Installation	1.00
CCP 145	Cold-Formed Steel Framing	1.00
CCP 125	Commercial Drawings	2.00
CCP 155	Doors and Door Hardware	1.00
CCP 150	Drywall Installation and Finishing	2.00
CCP 140	Exterior Finishing	2.00
CCP 130	Roofing Applications	1.00
CCP 170	Suspended Ceilings	1.00
CCP 135	Thermal and Moisture Protection	1.00
CCP 175	Window, Door, Floor, and Ceiling Trim	1.00
CED 115	Computer Applications	3.00
MCD 132	Basic Chief Architect/Architectural Desktop	3.00
	Communication Elective	3.00
MTH 101	Intermediate Algebra	3.00
MCD 101	Introduction to CAD I	3.00
AVC 112	Blueprint Reading	2.00
ENG 101	Composition I	3.00
MCD 105	Technical Drafting I	1.00
MCD 102	Introduction to CAD II	2.00
MCD 114	Architectural Drafting & Design	3.00
	Social Science Elective	3.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	January
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$11,089.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$42,090	\$20.24

# Carpentry Introduction, TC

CRN	COURSE NAME		CREDITS
SAF 101	Safety Orientation/OSHA 10		1.00
CCP 100	Introductory Craft Skills		3.00
CCP 105	Carpentry Basics		4.00
CCP 110	Floors, Walls, & Ceiling Framing		4.00
CCP 115	Roof Framing		3.00
CCP 120	Windows, Doors, & Stairs		3.00
<b>Total</b>			<b>18.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August                      January

## LOCATION

Grove Campus  
301 S. Grove | Wichita, KS 67211  
316.677.9400    Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL                      \$4,029.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$42,090	\$20.24

# Carpentry, TC

CRN	COURSE NAME		CREDITS
SAF	101	Safety Orientation/OSHA 10	1.00
CCP	100	Introductory Craft Skills	3.00
CCP	105	Carpentry Basics	4.00
CCP	110	Floors, Walls, & Ceiling Framing	4.00
CCP	115	Roof Framing	3.00
CCP	120	Windows, Doors, & Stairs	3.00
CCP	180	Cabinet Installation	1.00
CCP	145	Cold-Formed Steel Framing	1.00
CCP	125	Commercial Drawings	2.00
CCP	155	Doors and Door Hardware	1.00
CCP	150	Drywall Installation and Finishing	2.00
CCP	140	Exterior Finishing	2.00
CCP	130	Roofing Applications	1.00
CCP	170	Suspended Ceilings	1.00
CCP	135	Thermal and Moisture Protection	1.00
CCP	175	Window, Door, Floor, and Ceiling Trim	1.00
PDV	105	Global Professional Standards	2.00
MCD	132	Basic Chief Architect/Architectural Desktop	3.00
Total			36.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	January
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$7,393.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$42,090	\$20.24

# CATIA Machining, COC

CRN	COURSE NAME	CREDITS
AVC 110	Safety/OSHA 10	1.00
CAT 101	CATIA Part Design & Sketcher	4.00
CAT 105	CATIA Assembly Design	4.00
CAT 115	CATIA Prismatic Machining	4.00
<b>Total</b>		<b>13.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August January June	October March
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$3,816.00</b>
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	

# CATIA Mechanical Engineering Design, COC

CRN			COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation		0.00
CAT	101	CATIA Part Design & Sketcher		4.00
CAT	102	CATIA Drafting		4.00
CAT	105	CATIA Assembly Design		4.00
Total				12.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION	
National Center for Aviation Training 4004 North Webb Road   Wichita, KS 67226 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	

COSTS*	
PROGRAM TOTAL	\$3,451.00
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	



# Certified Medication Aide, COC

CRN	COURSE NAME	CREDITS
GRA 119	Medication Aide	5.00
<b>Total</b>		<b>5.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$809.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$22,900	\$11.02

# Certified Medication Aide Update, COC

CRN	COURSE NAME		CREDITS
MDU 010	Medication Aide Update		1.00
<b>Total</b>			<b>1.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August January June	October March
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$175.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$22,900	Hourly \$11.02

# Certified Nurse Aide, COC

CRN		COURSE NAME	CREDITS
GRA	101	Certified Nurse Aide	5.00
Total			5.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION	
Southside Center	
4501 E. 47th Street South   Wichita, KS 67210	
316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	

COSTS*	
PROGRAM TOTAL	\$816.00
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	

WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$22,710	\$10.92

# Certified Nurse Aide Update, COC

CRN	COURSE NAME	CREDITS
CNU 010	Certified Nurse Aide Update	1.00
<b>Total</b>		<b>1.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$151.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$22,710	\$10.92

# Chief Architect, COC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
MCD 112	Industrial Materials & Processes	2.00
MCD 132	Basic Chief Architect/Architectural Desktop	3.00
MCD 134	Advanced Chief Architect/Architectural Desktop	3.00
PDV 105	Global Professional Standards	2.00
MTH 020	Math Fundamentals	3.00
<b>Total</b>		<b>13.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

National Center for Aviation Training  
4004 North Webb Road | Wichita, KS 67226  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

<b>PROGRAM TOTAL</b>	<b>\$2,248.00</b>
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\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Climate & Energy Control Technologies, AAS

CRN	COURSE NAME	CREDITS
SAF 101	Safety Orientation/OSHA 10	1.00
ACR 112	HVAC Fundamentals	4.00
ACR 113	Electrical Fundamentals	4.00
ACR 117	Intro to Mechanical Refrigeration	4.00
ACR 118	Electrical Fundamentals II	1.00
ACR 119	Advanced Electrical Theory for HVAC	2.00
ACR 121	Heating System Fundamentals	3.00
ACR 140	Sheet Metal Fabrication I	3.00
CED 115	Computer Applications	3.00
ACR 122	Heating System Fundamentals II	2.00
ACR 123	Heat Loads and Duct Sizing	4.00
ACR 124	Advanced Heating Systems	3.00
ACR 126	EPA 608	1.00
ACR 127	Heat Pumps	3.00
ACR 128	Commercial HVAC	4.00
ACR 129	Commercial HVAC Lab	4.00
MTH 101	Intermediate Algebra	3.00
CCP 100	Introductory Craft Skills	3.00
ACR 116	Workplace Skills	1.00
ENG 101	Composition I	3.00
	Social Science Elective	3.00
	Communication Elective	3.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$9,770.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	11
Placement rate	93%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$48,180	Hourly \$23.17

# Climate & Energy Control Technologies, TC

CRN		COURSE NAME	CREDITS
SAF	101	Safety Orientation/OSHA 10	1.00
ACR	112	HVAC Fundamentals	4.00
ACR	113	Electrical Fundamentals	4.00
ACR	117	Intro to Mechanical Refrigeration	4.00
ACR	118	Electrical Fundamentals II	1.00
ACR	119	Advanced Electrical Theory for HVAC	2.00
ACR	121	Heating System Fundamentals	3.00
ACR	140	Sheet Metal Fabrication I	3.00
ACR	116	Workplace Skills	1.00
ACR	122	Heating System Fundamentals II	2.00
ACR	123	Heat Loads and Duct Sizing	4.00
ACR	124	Advanced Heating Systems	3.00
ACR	126	EPA 608	1.00
ACR	127	Heat Pumps	3.00
ACR	128	Commercial HVAC	4.00
ACR	129	Commercial HVAC Lab	4.00
Total			44.00

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus	
301 S. Grove   Wichita, KS 67211	
316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$7,769.00</b>
*Cost does not include online fees, books or tools.	
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	11
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$48,180	\$23.17



# CNC Operator, TC

CRN		COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation	0.00
AVC	110	Safety/OSHA 10	1.00
AVC	112	Blueprint Reading	2.00
MMG	101	Machining Blueprint	1.00
MMG	116	Quality Control & Inspection	1.00
MMG	131	Metallurgy	1.00
MMG	155	CNC Lathe	3.00
MMG	160	CNC Milling I	3.00
MMG	156	CNC Operations	3.00
PDV	105	Global Professional Standards	2.00
MTH	020	Math Fundamentals	3.00
Total			20.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$5,157.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	20
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$37,060	Hourly \$17.82

# Composite Fabrication, TC

CRN	COURSE NAME		CREDITS
AER 140	Assembly Mechanic Orientation		1.00
AVC 102	Precision Instruments		1.00
AVC 104	Quality Control Concepts		1.00
AVC 107	Fundamentals for Aerospace Manufacturing		1.00
AVC 108	Aircraft Systems & Components		4.00
AVC 110	Safety/OSHA 10		1.00
AVC 112	Blueprint Reading		2.00
AVC 120	Introduction to Sealing		1.00
AVC 125	Bonding and Grounding		1.00
AVC 135	Hand Tools		1.00
AVC 140	Electrical Bonding & Grounding		1.00
MTH 020	Math Fundamentals		3.00
PDV 105	Global Professional Standards		2.00
AVC 105	Aircraft Familiarization		1.00
AVC 145	Power Island		1.00
CFT 101	Introduction to Composites		2.00
CFT 106	Composite Finish Trim		2.00
CFT 107	Composite Assembly		2.00
CFT 130	Composite Fabrication Methods /Applications		2.00
<b>Total</b>			<b>30.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$6,901.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	10
Placement rate	90%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$44,850	Hourly \$21.56

# Composite Repair, TC

CRN	COURSE NAME	CREDITS
AER 140	Assembly Mechanic Orientation	1.00
AVC 102	Precision Instruments	1.00
AVC 104	Quality Control Concepts	1.00
AVC 107	Fundamentals for Aerospace Manufacturing	1.00
AVC 108	Aircraft Systems & Components	4.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
AVC 120	Introduction to Sealing	1.00
AVC 125	Bonding and Grounding	1.00
AVC 135	Hand Tools	1.00
AVC 140	Electrical Bonding & Grounding	1.00
CED 101	Computer Essentials	2.00
MTH 020	Math Fundamentals	3.00
PDV 105	Global Professional Standards	2.00
AVC 105	Aircraft Familiarization	1.00
AVC 145	Power Island	1.00
CFT 101	Introduction to Composites	2.00
CFT 106	Composite Finish Trim	2.00
CFT 107	Composite Assembly	2.00
CFT 130	Composite Fabrication Methods /Applications	2.00
CFT 140	Composite Inspection	2.00
CFT 141	Disassemble & Damage Removal Techniques	3.00
CFT 142	Composite Repair	4.00
CFT 143	Complex Composite Repairs	3.00
CFT 144	Electrical Bonding Repair	1.00
SPH 111	Interpersonal Communication	3.00
<b>Total</b>		<b>48.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$12,273.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	10
Placement rate	90%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$44,850	Hourly \$21.56

# Composite Technology, AAS

CRN	COURSE NAME		CREDITS
AER 140	Assembly Mechanic Orientation		1.00
AVC 102	Precision Instruments		1.00
AVC 104	Quality Control Concepts		1.00
AVC 107	Fundamentals for Aerospace Manufacturing		1.00
AVC 108	Aircraft Systems & Components		4.00
AVC 110	Safety/OSHA 10		1.00
AVC 112	Blueprint Reading		2.00
AVC 120	Introduction to Sealing		1.00
AVC 125	Bonding and Grounding		1.00
AVC 135	Hand Tools		1.00
AVC 140	Electrical Bonding & Grounding		1.00
CED 115	Computer Applications		3.00
PDV 105	Global Professional Standards		2.00
AVC 105	Aircraft Familiarization		1.00
AVC 145	Power Island		1.00
CFT 101	Introduction to Composites		2.00
CFT 106	Composite Finish Trim		2.00
CFT 107	Composite Assembly		2.00
CFT 130	Composite Fabrication Methods /Applications		2.00
CFT 140	Composite Inspection		2.00
CFT 141	Disassemble & Damage Removal Techniques		3.00
CFT 142	Composite Repair		4.00
CFT 143	Complex Composite Repairs		3.00
CFT 144	Electrical Bonding Repair		1.00
ENG 101	Composition I		3.00
SPH 111	Interpersonal Communication		3.00
LEN 100	Lean for Operations		3.00
CHM 110	General Chemistry		5.00
MTH 101	Intermediate Algebra		3.00
	Social Sceince Elective		3.00
<b>Total</b>			<b>63.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

## START DATES

June	January
August	March
October	

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [wadc.edu/campuses](http://wadc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$13,544.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	10
Placement rate	90%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$44,850	\$21.56

# Dental Assistant, AAS

CRN	COURSE NAME	CREDITS
ALH 101	Medical Terminology	3.00
ALH 110	Principles of Nutrition	3.00
CPR 001	CPR for Healthcare Providers	1.00
BIO 150	Human Anatomy & Physiology	5.00
CED 115	Computer Applications	3.00
DAS 113	Dental Materials I	4.00
DAS 114	Dental Radiology I	3.00
DAS 119	Dental Anatomy	2.00
DAS 120	Dental Science	2.00
DAS 149	Infection Control for Dental Practice	2.00
DAS 122	Chairside Assisting I	4.00
DAS 140	Chairside Assisting II	2.00
DAS 146	Dental Radiology II	1.00
DAS 147	Dental Practice Management	3.00
DAS 148	Dental Materials II	1.00
DAS 150	Clinical Experience	7.00
ENG 101	Composition I	3.00
ALH 131	Diseases, Disorders & Diagnostic Procedures	2.00
ALH 130	Emergency Preparedness for Health Professionals	1.00
PSY 101	General Psychology	3.00
MTH 101	Intermediate Algebra	3.00
	Communication Elective	3.00
<b>Total</b>		<b>63.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wac.edu/checklist](http://wac.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

Southside Center  
 4501 E. 47th Street South | Wichita, KS 67210  
 316.677.1500 Get maps at [wac.edu/campuses](http://wac.edu/campuses)

## COSTS\*

<b>PROGRAM TOTAL</b>	<b>\$9,126.00</b>
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\*Cost does not include online fees, books or tools.  
 Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	16
Placement rate	94%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$35,980	\$17.30

# Dental Assistant, TC

CRN	COURSE NAME	CREDITS
CPR 001	CPR for Healthcare Providers	1.00
BIO 150	Human Anatomy & Physiology	5.00
DAS 113	Dental Materials I	4.00
DAS 114	Dental Radiology I	3.00
DAS 119	Dental Anatomy	2.00
DAS 120	Dental Science	2.00
DAS 122	Chairside Assisting I	4.00
DAS 149	Infection Control for Dental Practice	2.00
DAS 146	Dental Radiology II	1.00
DAS 140	Chairside Assisting II	2.00
DAS 147	Dental Practice Management	3.00
DAS 148	Dental Materials II	1.00
DAS 150	Clinical Experience	7.00
<b>Total</b>		<b>37.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$6,702.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	17
Placement rate	94%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$35,980	\$17.30

# Dental Assistant, COC

CRN	COURSE NAME	CREDITS
DAS 215	Supragingival Scaling	5.00
<b>Total</b>		<b>5.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
January	May
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$1,248.00</b>
<small>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</small>	



# Engineering Design Technology, AAS

CRN		COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation	0.00
AVC	112	Blueprint Reading	2.00
MCD	101	Introduction to CAD I	3.00
MCD	102	Introduction to CAD II	2.00
MCD	105	Technical Drafting I	1.00
MCD	115	Machine Drafting & Design	3.00
MCD	121	Descriptive Geometry	3.00
MCD	124	Advanced AutoCAD	4.00
PDV	105	Global Professional Standards	2.00
MCD	110	Principles of Tool Design	2.00
CAT	101	CATIA Part Design & Sketcher	4.00
CAT	102	CATIA Drafting	4.00
CAT	105	CATIA Assembly Design	4.00
CED	115	Computer Applications	3.00
		Communication Elective	3.00
MTH	101	Intermediate Algebra	3.00
CAT	110	CATIA Wireframe & Surfaces	4.00
CAT	103	CATIA Functional Tolerancing & Annotation	4.00
ENG	101	Composition I	3.00
		Technical Elective	3.00
		Science Elective	5.00
		Social Science Elective	3.00
Technical Electives			
CAT	115	CATIA Prismatic Machining	0.00
CAT	124	CATIA Surface Machining	0.00
MCD	140	Drafting Technology Internship	0.00
MCD	201	Geometric Dimensioning & Tolerance	0.00
Total			65.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

National Center for Aviation Training  
4004 North Webb Road | Wichita, KS 67226  
316.677.1500 Get maps at [watac.edu/campuses](http://watac.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$12,666.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	16
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$60,490	\$29.08

# Engineering Design Technology, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 112	Blueprint Reading	2.00
MCD 101	Introduction to CAD I	3.00
MCD 102	Introduction to CAD II	2.00
MCD 105	Technical Drafting I	1.00
MCD 115	Machine Drafting & Design	3.00
MCD 121	Descriptive Geometry	3.00
MCD 124	Advanced AutoCAD	4.00
PDV 105	Global Professional Standards	2.00
MCD 110	Principles of Tool Design	2.00
CAT 102	CATIA Drafting	4.00
CAT 101	CATIA Part Design & Sketcher	4.00
CAT 105	CATIA Assembly Design	4.00
MTH 101	Intermediate Algebra	3.00
	Communication Elective	3.00
CAT 110	CATIA Wireframe & Surfaces	4.00
CAT 103	CATIA Functional Tolerancing & Annotation	4.00
<b>Total</b>		<b>48.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

National Center for Aviation Training  
4004 North Webb Road | Wichita, KS 67226  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$10,478.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	16
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$60,490	\$29.08

# Faux & Decorative Painting, COC

CRN	COURSE NAME	CREDITS
INT 131	Faux & Decorative Painting	4.00
<b>Total</b>		<b>4.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION
Southside Center 4501 E. 47th Street South, Wichita, KS 67210 316.677.1500    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>

COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$958.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Floral Design, COC

CRN	COURSE NAME	CREDITS
INT 201	Floral Design	4.00
<b>Total</b>		<b>4.00</b>
<p>*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit <a href="http://watc.edu/checklist">watc.edu/checklist</a> for program admission requirements.</p>		

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South, Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$1,122.00</b>
<p>*Cost does not include online fees, books or tools.            Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$27,010	\$12.98

# Gas Metal Arc Welding, COC

CRN	COURSE NAME		CREDITS
ORI 005	Manufacturing Orientation		0.00
AVC 110	Safety/OSHA 10		1.00
CWG 110	Welding Applications		4.00
CWG 120	GMAW		3.00
CWG 121	GMAW II		4.00
MTH 020	Math Fundamentals		3.00
Total			15.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>

COSTS*
<b>PROGRAM TOTAL</b> <span style="float: right;"><b>\$3,304.00</b></span>
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>

WAGES
<p>BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.</p>
<div> <div>Annually</div> <div>\$38,150</div> </div> <div> <div>Hourly</div> <div>\$18.34</div> </div>

# Gas Tungsten Arc Welding, COC

CRN			COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation		0.00
AVC	110	Safety/OSHA 10		1.00
CWG	110	Welding Applications		4.00
CWG	125	GTAW		3.00
CWG	126	GTAW II		4.00
MTH	020	Math Fundamentals		3.00
Total				15.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	

LOCATION	
National Center for Aviation Training	
4004 N. Webb Road   Wichita, KS 67226	
316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	

COSTS*	
PROGRAM TOTAL	\$3,229.00
*Cost does not include online fees, books or tools.	
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	

WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$38,150	\$18.34

# Healthcare Admin & Management, AAS

CRN		COURSE NAME	CREDITS
ALH	110	Principles of Nutrition	3.00
BIO	150	Human Anatomy & Physiology	5.00
ENG	101	Composition I	3.00
PSY	120	Developmental Psychology	3.00
PSY	101	General Psychology	3.00
PNR	120	KSPN Foundations of Nursing	4.00
PNR	121	KSPN Foundations of Nursing Clinical	2.00
PNR	122	KSPN Pharmacology	3.00
PNR	123	KSPN Medical Surgical Nursing I	4.00
PNR	124	KSPN Medical Surgical Nursing I Clinical	3.00
PNR	136	Transition to Nursing	2.00
MTH	101	Intermediate Algebra	3.00
PNR	126	KSPN Medical Surgical Nursing II	4.00
PNR	127	KSPN Medical Surgical Nursing II Clinical	3.00
PNR	130	KSPN Maternal Child Nursing	2.00
PNR	131	KSPN Maternal Child Nursing Clinical	1.00
PNR	132	KSPN Gerontology Nursing	2.00
PNR	134	Role Development	2.00
PNR	135	KSPN Mental Health Nursing	2.00
PNR	180	Healthcare Issues	3.00
PNR	170	Healthcare Practice Management	3.00
		Technical Elective Credits - Minimum 4	4.00
		Communication Elective	3.00
<b>Technical Elective</b>			
BIO	160	Microbiology	0.00
PNR	175	Healthcare Management Research	0.00
<b>Total</b>			<b>67.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$11,410.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted	
in follow-up study	130
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$39,300	\$18.89

# Home Health Aide, COC

CRN	COURSE NAME	CREDITS
HHA 100	Home Health Aide	2.00
Total		2.00

START DATES	
August	October
January	March
June	

LOCATION
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>

COSTS*
<b>PROGRAM TOTAL</b> <b>\$356.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$21,920	\$10.54

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.



# Industrial Automation and Machine Maintenance, AAS

CRN	COURSE NAME	CREDITS
IND 105	Industrial Automation Test Equipment	1.00
IND 106	Direct & Alternating Current	4.00
IND 132	Industrial Process Control	3.00
IND 108	Industrial Wiring	2.00
IND 110	DC & AC Motors	1.00
IND 109	Basic Industrial Programmable Logic Controls	3.00
IND 131	Industrial Programmable Logic Controls (PLC)	3.00
IND 119	Industrial Precision Alignment	3.00
ENG 101	Composition I	3.00
SPH 101	Public Speaking	3.00
PHS 120	General Physics I	5.00
ECO 105	Principles of Macroeconomics	3.00
IND 112	Fundamentals of Motor Control	2.00
IND 114	Magnetic Starters & Braking	2.00
IND 116	Advanced Motor Controls	3.00
IND 117	Variable Speed Motor Control	2.00
IND 104	Drafting for Industrial Maintenance	1.00
IND 123	Industrial Fluid Power	4.00
IND 121	Mechanical Systems Reliability	3.00
IND 130	Mechanical Systems	3.00
MTH 112	College Algebra	3.00
IND 100	Industrial Safety Procedures/OSHA 10	1.00
PDV 105	Global Professional Standards	2.00
	Technical Elective Credits- 3	3.00
	Experiential Learning Credits - 4	4.00
<b>Technical Elective</b>		
IND 113	Solid State & Digital Devices	0.00
ROB 100	Introduction to Robotics	0.00
<b>Experiential Learning Elective</b>		
IND 136	Industrial Automation Internship	0.00
IND 135	Industrial Automation Capstone	0.00
<b>Total</b>		<b>67.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROTRAM TOTAL</b>	<b>\$13,493.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$48,410	Hourly \$23.28

# Industrial Automation and Machine Maintenance, TC

CRN	COURSE NAME	CREDITS
IND 105	Industrial Automation Test Equipment	1.00
IND 106	Direct & Alternating Current	4.00
IND 132	Industrial Process Control	3.00
IND 108	Industrial Wiring	2.00
IND 110	DC & AC Motors	1.00
IND 109	Basic Industrial Programmable Logic Controls	3.00
IND 119	Industrial Precision Alignment	3.00
IND 131	Industrial Programmable Logic Controls (PLC)	3.00
MTH 101	Intermediate Algebra	3.00
IND 100	Industrial Safety Procedures/OSHA 10	1.00
IND 112	Fundamentals of Motor Control	2.00
IND 114	Magnetic Starters & Braking	2.00
IND 116	Advanced Motor Controls	3.00
IND 117	Variable Speed Motor Control	2.00
IND 104	Drafting for Industrial Maintenance	1.00
IND 123	Industrial Fluid Power	4.00
IND 121	Mechanical Systems Reliability	3.00
IND 130	Mechanical Systems	3.00
PDV 105	Global Professional Standards	2.00
	Experiential Learning Elective Credits - 4	4.00
<b>Experiential Learning Elective</b>		
IND 136	Industrial Automation Internship	0.00
IND 135	Industrial Automation Capstone	0.00
<b>Total</b>		<b>50.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,290.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$48,410	Hourly \$23.28

# Industrial Radiographer, COC

CRN	COURSE NAME		CREDITS
NDT 100	Penetrant Inspection		2.00
NDT 101	Magnetic Particle Testing Method for NDT		3.00
NDT 102	45 Hour Radiation Safety		3.00
NDT 103	Radiographic Testing Method II		3.00
NDT 105	Computed Radiographic Imaging		3.00
Total			14.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$3,460.00
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$82,070	Hourly \$39.46

# Interior Design, AAS

CRN	COURSE NAME	CREDITS
INT 101	Interior Design Fundamentals	2.00
INT 105	Blueprint Reading for Interior Design	2.00
INT 110	Color Theory	2.00
INT 126	Textiles	3.00
INT 190	Drafting for Interiors	2.00
MTH 101	Intermediate Algebra	3.00
INT 127	Materials for Interior Environments	2.00
INT 141	History of Furniture & Architecture	3.00
INT 192	Illustration for Interior Design	3.00
INT 193	Rendering for Interior Design	3.00
ENG 101	Composition I	3.00
CED 115	Computer Applications	3.00
	Humanities Elective	3.00
	Technical Electives Credits - 4	4.00
INT 160	Design Studio I	3.00
INT 166	AutoCAD for Interior Design	5.00
INT 170	Business Practices & Portfolio Development	3.00
SPH 101	Public Speaking	3.00
INT 155	Lighting Technologies	3.00
INT 165	Design Studio II	2.00
INT 175	Seminars for Interior Design	2.00
INT 196	Interior Design Codes & Standards	3.00
<b>Technical Elective</b>		
INT 100	Accessories	0.00
INT 131	Faux & Decorative Painting	0.00
INT 185	Mentorship	0.00
INT 201	Floral Design	0.00
INT 218	Kitchen & Bath Design	0.00
MCD 132	Basic Chief Architect/Architectural Desktop	0.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South, Wichita, KS 67210 316.677.1500 Get maps at <a href="http://wadc.edu/campuses">wadc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$8,108.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$48,840	\$23.48

# IT Essentials, COC

CRN	COURSE NAME	CREDITS
INF 105	A+ Certification - Essentials	3.00
INF 110	A+ Certification - Application	3.00
INF 115	Network+ Part I	3.00
INF 116	Network+ Part II	3.00
INF 120	Security+	3.00
<b>Total</b>		<b>15.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	January
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$3,160.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	NA
Placement rate	NA
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$63,610	Hourly \$30.58

# Kitchen & Bath Design, TC

CRN	COURSE NAME	CREDITS
INT 105	Blueprint Reading for Interior Design	2.00
INT 110	Color Theory	2.00
INT 155	Lighting Technologies	3.00
INT 190	Drafting for Interiors	2.00
SPH 101	Public Speaking	3.00
INT 166	AutoCAD for Interior Design	5.00
MTH 101	Intermediate Algebra	3.00
INT 127	Materials for Interior Environments	2.00
INT 170	Business Practices & Portfolio Development	3.00
INT 192	Illustration for Interior Design	3.00
INT 193	Rendering for Interior Design	3.00
INT 218	Kitchen & Bath Design	4.00
PDV 105	Global Professional Standards	2.00
<b>Total</b>		<b>37.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South, Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watac.edu/campuses">watac.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$4,686.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	6
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$48,840	\$23.48

# Lubrication Technician and Oil Analyst, COC

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 110	Safety/OSHA 10	1.00
NDT 165	Machine Lubrication and Analysis I	3.00
NDT 166	Machine Lubrication and Analysis II	3.00
NDT 167	Machine Lubrication and Analysis III	3.00
CED 101	Computer Essentials	2.00
Total		13.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES
August
LOCATION
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>
COSTS*
<b>PROGRAM TOTAL</b> <b>\$2,749.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Machining Technology, AAS

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
CAT 101	CATIA Part Design & Sketcher	4.00
MMG 101	Machining Blueprint	1.00
MMG 115	Machining I	3.00
MMG 116	Quality Control & Inspection	1.00
MMG 126	Machining II	3.00
MMG 130	Bench Work	1.00
MMG 131	Metallurgy	1.00
MMG 132	Machine Tool Processes	1.00
CED 115	Computer Applications	3.00
CAT 105	CATIA Assembly Design	4.00
MMG 155	CNC Lathe	3.00
MMG 156	CNC Operations	3.00
MMG 160	CNC Milling I	3.00
MMG 165	Advanced NC Programming	3.00
MTH 101	Intermediate Algebra	3.00
CAT 115	CATIA Prismatic Machining	4.00
ENG 101	Composition I	3.00
PDV 105	Global Professional Standards	2.00
	Technical Electives	7.00
	Communication Elective	3.00
	Social Science Elective	3.00
<b>Technical Electives</b>		
CAT 124	CATIA Surface Machining	0.00
MCD 201	Geometric Dimensioning & Tolerancing	0.00
MMG 170	CAM I	0.00
MMG 225	Internship/Directed Work Study	0.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wetc.edu/checklist](http://wetc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://wetc.edu/campuses">wetc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$14,679.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	20
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$42,120	Hourly \$20.25



# Machining Technology, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
CAT 101	CATIA Part Design & Sketcher	4.00
MMG 101	Machining Blueprint	1.00
MMG 115	Machining I	3.00
MMG 116	Quality Control & Inspection	1.00
MMG 126	Machining II	3.00
MMG 130	Bench Work	1.00
MMG 131	Metallurgy	1.00
MMG 132	Machine Tool Processes	1.00
CAT 105	CATIA Assembly Design	4.00
MMG 155	CNC Lathe	3.00
MMG 156	CNC Operations	3.00
MMG 165	Advanced NC Programming	3.00
MMG 160	CNC Milling I	3.00
PDV 105	Global Professional Standards	2.00
MTH 020	Math Fundamentals	3.00
<b>Total</b>		<b>39.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,775.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	20
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$42,120	Hourly \$20.25

# Manual Machining, TC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 110	Safety/OSHA 10	1.00
AVC 112	Blueprint Reading	2.00
MMG 101	Machining Blueprint	1.00
MMG 115	Machining I	3.00
MMG 116	Quality Control & Inspection	1.00
MMG 126	Machining II	3.00
MMG 130	Bench Work	1.00
MMG 131	Metallurgy	1.00
MMG 132	Machine Tool Processes	1.00
MMG 156	CNC Operations	3.00
MTH 020	Math Fundamentals	3.00
PDV 105	Global Professional Standards	2.00
<b>Total</b>		<b>22.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Grove Campus 301 S. Grove   Wichita, KS 67211 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$6,025.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	20
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$33,100	Hourly \$15.91

# Massage Therapy, AAS

CRN	COURSE NAME	CREDITS
MST 100	Introduction to Therapeutic Massage	1.00
CPR 001	CPR for Healthcare Providers	1.00
MST 110	Body Systems and Disease I	4.00
MST 115	Therapeutic Massage I	5.00
PDV 105	Global Professional Standards	2.00
MST 120	Reflexology	3.00
MST 125	Therapeutic Massage II	4.00
MST 140	Body Systems and Disease II	4.00
MST 130	Massage Ethics	2.00
MST 145	Lifespan Massage	3.00
MTH 101	Intermediate Algebra	3.00
MST 135	Sports and Clinical Massage	3.00
MST 160	Massage Therapy Clinic	1.00
MST 155	Therapeutic Massage III	2.00
MST 150	Mechanics of Movement	3.00
ENG 101	Composition I	3.00
CED 115	Computer Applications	3.00
MST 105	Advanced Massage Therapy Techniques	2.00
	Social Science Elective (PSY 101 or SOC 101)	3.00
BUS 121	Business Communications	3.00
ENT 110	Introduction to Entrepreneurship	3.00
	Communication Elective	3.00
<b>Total</b>		<b>61.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August January

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL \$7,216.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	N/A
Placement rate	N/A

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$38,040	\$18.29

# Massage Therapy, TC

CRN	COURSE NAME	CREDITS
MST 100	Introduction to Therapeutic Massage	1.00
MST 115	Therapeutic Massage I	5.00
MST 110	Body Systems and Disease I	4.00
CPR 001	CPR for Healthcare Providers	1.00
PDV 105	Global Professional Standards	2.00
MST 120	Reflexology	3.00
MST 125	Therapeutic Massage II	4.00
MST 140	Body Systems and Disease II	4.00
MST 130	Massage Ethics	2.00
MST 145	Lifespan Massage	3.00
	Communication Elective	3.00
MST 150	Mechanics of Movement	3.00
MST 135	Sports and Clinical Massage	3.00
MST 155	Therapeutic Massage III	2.00
MST 160	Massage Therapy Clinic	1.00
CED 115	Computer Applications	3.00
<b>Total</b>		<b>44.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	January
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$5,760.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	N/A
Placement rate	N/A
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$38,040	Hourly \$18.29

# Medical Assistant, TC

CRN		COURSE NAME	CREDITS
ALH	101	Medical Terminology	3.00
ALH	130	Emergency Preparedness for Health Professionals	1.00
BIO	150	Human Anatomy & Physiology	5.00
CPR	001	CPR for Healthcare Providers	1.00
CED	115	Computer Applications	3.00
MEA	101	Medical Professional Issues	2.00
MEA	111	Patient Care I	5.00
MEA	113	Medical Administrative Aspects	4.00
MEA	115	Insurance Billing & Coding	3.00
MEA	116	Pharmacology Medication Administration	2.00
ALH	155	Pharmacology for Allied Health	3.00
MEA	121	Patient Care II	4.00
MEA	125	Clinical Laboratory Procedures	4.00
MEA	131	Medical Assistant Practicum	6.00
ALH	131	Diseases, Disorders & Diagnostic Procedures	2.00
PDV	105	Global Professional Standards	2.00
Total			50.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500 Get maps at [wadc.edu/campuses](http://wadc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$8,394.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	23
Placement rate	91%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$30,590	\$14.71

# Medical Assisting, AAS

CRN	COURSE NAME	CREDITS
ALH 130	Emergency Preparedness for Health Professionals	1.00
ALH 101	Medical Terminology	3.00
BIO 150	Human Anatomy & Physiology	5.00
CED 115	Computer Applications	3.00
CPR 001	CPR for Healthcare Providers	1.00
ENG 101	Composition I	3.00
	Social Science Elective	3.00
	Communication Elective	3.00
MTH 101	Intermediate Algebra	3.00
MEA 101	Medical Professional Issues	2.00
MEA 111	Patient Care I	5.00
MEA 113	Medical Administrative Aspects	4.00
MEA 115	Insurance Billing & Coding	3.00
MEA 116	Pharmacology Medication Administration	2.00
ALH 155	Pharmacology for Allied Health	3.00
MEA 121	Patient Care II	4.00
MEA 125	Clinical Laboratory Procedures	4.00
MEA 131	Medical Assistant Practicum	6.00
ALH 131	Diseases, Disorders & Diagnostic Procedures	2.00
PDV 105	Global Professional Standards	2.00
<b>Total</b>		<b>62.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$9,606.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	23
Placement rate	91%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$30,590	\$14.71

# Medical Coding, AAS

CRN	COURSE NAME	CREDITS
ALH 101	Medical Terminology	3.00
BIO 150	Human Anatomy & Physiology	5.00
CED 115	Computer Applications	3.00
PDV 105	Global Professional Standards	2.00
PSY 101	General Psychology	3.00
MEC 110	Legal and Ethical Issues in Healthcare	3.00
MEC 115	Pathophysiology	3.00
MEC 125	Introduction to Health Information Communication Elective	3.00
SOC 101	Principles of Sociology	3.00
ACC 105	Fundamentals of Accounting	3.00
ALH 115	Pharmacology	3.00
MEC 130	Reimbursement Methodologies	4.00
ALH 105	First Aid & CPR	3.00
MTH 101	Intermediate Algebra	3.00
MEC 135	Healthcare Coding Practicum	3.00
MEC 120	International Classification of Disease Coding	4.00
MEC 140	Current Procedural Terminology	3.00
ENG 101	Composition I	3.00
<b>Total</b>		<b>60.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$5,925.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	NA
Placement rate	NA
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$25,950	Hourly \$12.48

# Medical Coding, COC

CRN	COURSE NAME	CREDITS
ALH 101	Medical Terminology	3.00
BIO 100	Biology Review	1.00
BIO 150	Human Anatomy & Physiology	5.00
MEC 101	Insurance Billing & Coding for the Physician's Office	3.00
<b>Total</b>		<b>12.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$1,280.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	NA
Placement rate	NA

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$25,950	\$12.48



# Medical Coding, TC

CRN	COURSE NAME		CREDITS
MEC 110	Legal and Ethical Issues in Healthcare		3.00
ALH 101	Medical Terminology		3.00
BIO 150	Human Anatomy & Physiology		5.00
CED 115	Computer Applications		3.00
MEC 130	Reimbursement Methodologies		4.00
MEC 115	Pathophysiology		3.00
MEC 125	Introduction to Health Information		3.00
MEC 140	Current Procedural Terminology		3.00
ALH 115	Pharmacology		3.00
MEC 120	International Classification of Disease Coding		4.00
MEC 135	Healthcare Coding Practicum		3.00
Total			37.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$3,865.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	NA
Placement rate	NA
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$25,950	Hourly \$12.48

# Nondestructive Testing, AAS

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 110	Safety/OSHA 10	1.00
CFT 101	Introduction to Composites	2.00
NDT 100	Penetrant Inspection	2.00
NDT 101	Magnetic Particle Testing Method for NDT	3.00
NDT 102	45 Hour Radiation Safety	3.00
NDT 103	Radiographic Testing Method II	3.00
NDT 112	Ultrasonic Testing Method Level I	3.00
NDT 113	Ultrasonic Testing Method Level II	3.00
CED 115	Computer Applications	3.00
PDV 105	Global Professional Standards	2.00
	Communication Elective	3.00
NDT 105	Computed Radiographic Imaging	3.00
NDT 110	Eddy Current Level I	3.00
NDT 111	Eddy Current Level II	3.00
NDT 114	Visual Inspection	3.00
NDT 115	Introduction to Ultrasonic C-Scan and Phased Array	3.00
NDT 116	Bond Testing for NDT	2.00
NDT 120	Ultrasonic Phased Array II	2.00
NDT 125	Phased Array Time of Flight Diffraction (TOFD)	2.00
PHS 110	Physical Science	5.00
ENG 101	Composition I	3.00
MTH 112	College Algebra	3.00
	Social Science Elective	3.00
<b>Total</b>		<b>64.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$12,726.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	13
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$82,070	\$39.46

# Nondestructive Testing, TC

CRN	COURSE NAME	CREDITS
AVC 110	Safety/OSHA 10	1.00
AVC 102	Precision Instruments	1.00
CFT 101	Introduction to Composites	2.00
NDT 100	Penetrant Inspection	2.00
NDT 101	Magnetic Particle Testing Method for NDT	3.00
NDT 103	Radiographic Testing Method II	3.00
NDT 102	45 Hour Radiation Safety	3.00
NDT 112	Ultrasonic Testing Method Level I	3.00
NDT 113	Ultrasonic Testing Method Level II	3.00
CED 101	Computer Essentials	2.00
MTH 020	Math Fundamentals	3.00
NDT 105	Computed Radiographic Imaging	3.00
NDT 110	Eddy Current Level I	3.00
NDT 111	Eddy Current Level II	3.00
NDT 114	Visual Inspection	3.00
NDT 115	Introduction to Ultrasonic C-Scan and Phased Array	3.00
NDT 116	Bond Testing for NDT	2.00
NDT 120	Ultrasonic Phased Array II	2.00
NDT 125	Phased Array Time of Flight Diffraction (TOFD)	2.00
PDV 105	Global Professional Standards	2.00
<b>Total</b>		<b>49.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$11,178.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	13
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$82,070	\$39.46

# Operations Management and Supervision, AAS

CRN	COURSE NAME	CREDITS
ACC 105	Fundamentals of Accounting	3.00
BUS 104	Introduction to Business	3.00
CED 115	Computer Applications	3.00
ENG 101	Composition I	3.00
LEN 100	Lean for Operations	3.00
OPM 105	Operations Management for Organizational Success	3.00
ACC 160	Principles of Accounting I	3.00
OPM 110	Introduction to Supply Chain Management	3.00
OPM 115	Introduction to Project Management	3.00
PSS 100	Six Sigma Yellow Belt	1.00
PSS 101	Six Sigma Green Belt Methods	3.00
PSS 105	Six Sigma Green Belt Statistics	3.00
ACC 170	Principles of Accounting II	3.00
BUS 200	Principles of Management	3.00
ECO 110	Principles of Microeconomics	3.00
MTH 112	College Algebra	3.00
SPH 101	Public Speaking	3.00
ACC 130	Managerial Accounting	3.00
ECO 105	Principles of Macroeconomics	3.00
HIS 120	United States History since 1865	3.00
PSY 101	General Psychology	3.00
	Science Elective	5.00
<b>Total</b>		<b>66.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

June	January
August	March
October	

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

<b>PROGRAM TOTAL</b>	<b>\$6,721.00</b>
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\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	9
Placement rate	89%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$34,770	\$16.72

# Operations Management and Supervision, COC

CRN	COURSE NAME		CREDITS
LEN 100	Lean for Operations		3.00
OPM 105	Operations Management for Organizational Success		3.00
BUS 104	Introduction to Business		3.00
OPM 110	Introduction to Supply Chain Management		3.00
OPM 115	Introduction to Project Management		3.00
<b>Total</b>			<b>15.00</b>

START DATES	
June	January
August	March
October	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$1,515.00</b>

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

# Operations Management and Supervision, TC

CRN	COURSE NAME	CREDITS
ACC 105	Fundamentals of Accounting	3.00
BUS 104	Introduction to Business	3.00
CED 115	Computer Applications	3.00
LEN 100	Lean for Operations	3.00
OPM 105	Operations Management for Organizational Success	3.00
ACC 160	Principles of Accounting I	3.00
OPM 110	Introduction to Supply Chain Management	3.00
OPM 115	Introduction to Project Management	3.00
PSS 101	Six Sigma Green Belt Methods	3.00
PSS 100	Six Sigma Yellow Belt	1.00
PSS 105	Six Sigma Green Belt Statistics	3.00
ACC 170	Principles of Accounting II	3.00
BUS 200	Principles of Management	3.00
SPH 101	Public Speaking	3.00
<b>Total</b>		<b>40.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES
<div>June</div> <div>August</div> <div>October</div> <div>January</div> <div>March</div>
LOCATION
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>
COSTS*
<b>PROGRAM TOTAL</b> <b>\$4,040.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.
SUCCESS RATE
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.
Eligible graduates contacted in follow-up study 9 Placement rate 89%
WAGES
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.
<div>Annually</div> <div>\$34,770</div> <div>Hourly</div> <div>\$16.72</div>

# Patient Care Technician, TC

CRN	COURSE NAME	CREDITS
GRA 101	Certified Nurse Aide	5.00
ALH 131	Diseases, Disorders & Diagnostic Procedures	2.00
ALH 101	Medical Terminology	3.00
MEC 110	Legal and Ethical Issues in Healthcare	3.00
ALH 155	Pharmacology for Allied Health	3.00
PCT 110	Clinical Procedures	4.00
PDV 105	Global Professional Standards	2.00
HHA 100	Home Health Aide	2.00
CPR 001	CPR for Healthcare Providers	1.00
GRA 119	Medication Aide	5.00
PCT 100	EKG for Healthcare Providers	4.00
<b>Total</b>		<b>34.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August                      January  
June

## LOCATION

Southside Center  
4501 E. 47th Street South | Wichita, KS 67210  
316.677.1500    Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL                      \$5,019.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	N/A
Placement rate	N/A

# PdMEntry-Level Technician, COC

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 110	Safety/OSHA 10	1.00
NDT 150	Vibration Analysis Level I	3.00
NDT 155	Thermography Level I	3.00
NDT 165	Machine Lubrication and Analysis I	3.00
MTH 020	Math Fundamentals	3.00
<b>Total</b>		<b>14.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$2,836.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.



# Police Science, AAS

CRN	COURSE NAME		CREDITS
CRJ 101	Introduction to Criminal Justice		3.00
CRJ 110	Criminal Law		3.00
CRJ 140	Professional Responsibility in Criminal Justice		3.00
CED 115	Computer Applications		3.00
ENG 101	Composition I		3.00
CRJ 105	Criminal Investigation		3.00
CRJ 115	Agency Administration		3.00
CRJ 130	Criminal Procedures		3.00
MTH 101	Intermediate Algebra		3.00
PED 110	Lifetime Fitness		1.00
CRJ 120	Juvenile Delinquency and Justice		3.00
CRJ 125	Law Enforcement Operations and Procedures		3.00
CRJ 135	Criminal Justice Interview and Report Writing		3.00
HIS 120	United States History since 1865		3.00
	Communication Elective		3.00
CRJ 145	Corrections		3.00
CRJ 155	Policing Diverse Cultures		3.00
CRJ 161	Internship in Criminal Justice I		1.00
CRJ 162	Internship in Criminal Justice II		1.00
CRJ 163	Internship in Criminal Justice III		1.00
CRJ 180	KLETC or Equivalent Law Enforcement Academy Training		12.00
	Social Science Elective		3.00
<b>Total</b>			<b>67.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
June	January
August	March
October	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$6,792.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	NA
Placement rate	NA
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$60,270	\$28.97

# Police Science, TC

CRN		COURSE NAME	CREDITS
CRJ	101	Introduction to Criminal Justice	3.00
CRJ	110	Criminal Law	3.00
CRJ	140	Professional Responsibility in Criminal Justice	3.00
CRJ	145	Corrections	3.00
CED	115	Computer Applications	3.00
CRJ	105	Criminal Investigation	3.00
CRJ	115	Agency Administration	3.00
CRJ	130	Criminal Procedures	3.00
CRJ	155	Policing Diverse Cultures	3.00
PED	110	Lifetime Fitness	1.00
		Communication Elective	3.00
CRJ	120	Juvenile Delinquency and Justice	3.00
CRJ	125	Law Enforcement Operations and Procedures	3.00
CRJ	135	Criminal Justice Interview and Report Writing	3.00
CRJ	161	Internship in Criminal Justice I	1.00
CRJ	162	Internship in Criminal Justice II	1.00
CRJ	163	Internship in Criminal Justice III	1.00
ENG	101	Composition I	3.00
Total			46.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

June	January
August	March
October	

## LOCATION

Southside Center  
 4501 E. 47th Street South | Wichita, KS 67210  
 316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

<b>PROGRAM TOTAL</b>	<b>\$4,671.00</b>
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\*Cost does not include online fees, books or tools.  
 Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	NA
Placement rate	NA

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$60,270	\$28.97

# Powerplant, TC

CRN	COURSE NAME	CREDITS
AMT 105	Technical Mathematics	2.00
AMT 107	Aircraft Drawings	1.00
AMT 109	Physics	2.00
AMT 111	Materials & Processes	4.00
AMT 113	Basic Electricity	4.00
AMT 115	Weight & Balance	2.00
AMT 117	Mechanics Privileges & Limitations	1.00
AMT 119	Maintenance Publications, Forms, & Records	2.00
AMT 123	Cleaning & Corrosion Control	1.00
AMT 125	Fluid Lines & Fittings	1.00
AMT 127	Ground Operations & Servicing	2.00
AMT 131	General Review & Test	0.00
AMT 200	Reciprocating Engines	9.00
AMT 227	Turbine Engines	8.00
AMT 204	Engine Fuel Systems	1.00
AMT 206	Auxiliary Power Units	1.00
AMT 136	Propellers	4.00
AMT 225	Powerplant Instrument Systems	1.00
AMT 223	Powerplant Fire Protection Systems	1.00
AMT 208	Engine Electrical Systems	2.00
AMT 203	Powerplant Ignition Systems	3.00
AMT 213	Lubrication Systems	2.00
AMT 211	Powerplant Cooling Systems	1.00
AMT 207	Fuel Metering Systems	3.00
AMT 217	Induction Systems	1.00
AMT 202	Engine Inspection	2.00
AMT 231	Powerplant Test & Review	3.00
AMT 219	Powerplant Exhaust Systems	1.00
<b>Total</b>		<b>65.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wadc.edu/checklist](http://wadc.edu/checklist) for program admission requirements.

## START DATES

August                      January  
May

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400    Get maps at [wadc.edu/campuses](http://wadc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL                      \$14,926.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required. **All AMT program students are required to purchase tool kits via WATC. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WATC.**

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	58
Placement rate	97%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$75,660	\$36.38

# Practical Nurse, TC

CRN	COURSE NAME	CREDITS
ALH 110	Principles of Nutrition	3.00
BIO 150	Human Anatomy & Physiology	5.00
PSY 101	General Psychology	3.00
PSY 120	Developmental Psychology	3.00
PNR 120	KSPN Foundations of Nursing	4.00
PNR 121	KSPN Foundations of Nursing Clinical	2.00
PNR 122	KSPN Pharmacology	3.00
PNR 123	KSPN Medical Surgical Nursing I	4.00
PNR 124	KSPN Medical Surgical Nursing I Clinical	3.00
PNR 136	Transition to Nursing	2.00
PNR 126	KSPN Medical Surgical Nursing II	4.00
PNR 127	KSPN Medical Surgical Nursing II Clinical	3.00
PNR 130	KSPN Maternal Child Nursing	2.00
PNR 131	KSPN Maternal Child Nursing Clinical	1.00
PNR 132	KSPN Gerontology Nursing	2.00
PNR 134	Role Development	2.00
PNR 135	KSPN Mental Health Nursing	2.00
<b>Total</b>		<b>48.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watac.edu/checklist](http://watac.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watac.edu/campuses">watac.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$9,007.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	130
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$43,170	\$20.76

# Predictive NDT Technologies, AAS

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 110	Safety/OSHA 10	1.00
NDT 101	Magnetic Particle Testing Method for NDT	3.00
NDT 112	Ultrasonic Testing Method Level I	3.00
NDT 150	Vibration Analysis Level I	3.00
NDT 151	Vibration Analysis Level II	3.00
NDT 152	Vibration Analysis Level III	3.00
NDT 155	Thermography Level I	3.00
NDT 156	Thermography Level II	3.00
NDT 157	Thermography Level III	3.00
NDT 160	Acoustic Emission Testing Level I	3.00
NDT 165	Machine Lubrication and Analysis I	3.00
NDT 166	Machine Lubrication and Analysis II	3.00
NDT 167	Machine Lubrication and Analysis III	3.00
NDT 170	Electrical Motor Testing	2.00
PDV 105	Global Professional Standards	2.00
LEN 100	Lean for Operations	3.00
CED 115	Computer Applications	3.00
ENG 101	Composition I	3.00
MTH 112	College Algebra	3.00
PHS 110	Physical Science	5.00
	Communication Elective	3.00
	Social Science Elective	3.00
<b>Total</b>		<b>65.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$11,974.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	13
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$82,070	\$39.46

# Predictive NDT Technologies, TC

CRN	COURSE NAME	CREDITS
AVC 102	Precision Instruments	1.00
AVC 110	Safety/OSHA 10	1.00
LEN 100	Lean for Operations	3.00
NDT 101	Magnetic Particle Testing Method for NDT	3.00
NDT 150	Vibration Analysis Level I	3.00
NDT 151	Vibration Analysis Level II	3.00
NDT 152	Vibration Analysis Level III	3.00
NDT 155	Thermography Level I	3.00
NDT 156	Thermography Level II	3.00
NDT 157	Thermography Level III	3.00
NDT 160	Acoustic Emission Testing Level I	3.00
NDT 165	Machine Lubrication and Analysis I	3.00
NDT 166	Machine Lubrication and Analysis II	3.00
NDT 167	Machine Lubrication and Analysis III	3.00
NDT 170	Electrical Motor Testing	2.00
CED 101	Computer Essentials	2.00
PDV 105	Global Professional Standards	2.00
MTH 020	Math Fundamentals	3.00
<b>Total</b>		<b>47.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$9,704.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted in follow-up study	13
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$82,070	\$39.46

# Robotics, AAS

CRN	COURSE NAME		CREDITS
ORI 005	Manufacturing Orientation		0.00
AVC 110	Safety/OSHA 10		1.00
IND 106	Direct & Alternating Current		4.00
IND 108	Industrial Wiring		2.00
ROB 100	Introduction to Robotics		3.00
MTH 112	College Algebra		3.00
IND 109	Basic Industrial Programmable Logic Controls		3.00
IND 110	DC & AC Motors		1.00
IND 112	Fundamentals of Motor Control		2.00
ROB 101	Manufacturing Control & Work Cell Interfacing		2.00
ROB 103	Applied Robotics Lab I		3.00
MTH 113	Trigonometry		3.00
ROB 102	Work Cell Design Laboratory		1.00
ROB 104	Robotics Simulation		2.00
IND 131	Industrial Programmable Logic Controls (PLC)		3.00
SPH 101	Public Speaking		3.00
ROB 106	Robotics Controller Maintenance		3.00
ROB 110	Applied Robotics Lab II		3.00
IND 132	Industrial Process Control		3.00
ENG 101	Composition I		3.00
PDV 105	Global Professional Standards		2.00
ROB 111	Advanced Robot Controller Programming		2.00
ROB 125	Advanced Industrial Workcell Programming		3.00
ECO 105	Principles of Macroeconomics		3.00
PHS 120	General Physics I		5.00
<b>Total</b>			<b>63.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [wetc.edu/checklist](http://wetc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [wetc.edu/campuses](http://wetc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$11,829.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## SUCCESS RATE

This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.

Eligible graduates contacted	
in follow-up study	1
Placement rate	100%

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
NA	NA

# Robotics, TC

CRN	COURSE NAME		CREDITS
ORI 005	Manufacturing Orientation		0.00
AVC 110	Safety/OSHA 10		1.00
IND 106	Direct & Alternating Current		4.00
ROB 100	Introduction to Robotics		3.00
ROB 103	Applied Robotics Lab I		3.00
MTH 112	College Algebra		3.00
IND 109	Basic Industrial Programmable Logic Controls		3.00
IND 112	Fundamentals of Motor Control		2.00
ROB 101	Manufacturing Control & Work Cell Interfacing		2.00
ROB 104	Robotics Simulation		2.00
MTH 113	Trigonometry		3.00
IND 131	Industrial Programmable Logic Controls (PLC)		3.00
IND 132	Industrial Process Control		3.00
ROB 102	Work Cell Design Laboratory		1.00
ROB 106	Robotics Controller Maintenance		3.00
ROB 111	Advanced Robot Controller Programming		2.00
PDV 105	Global Professional Standards		2.00
PHS 120	General Physics I		5.00
ROB 110	Applied Robotics Lab II		3.00
ROB 125	Advanced Industrial Workcell Programming		3.00
<b>Total</b>			<b>51.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$10,080.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	1
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
NA	NA



# Shielded Metal Arc Welding, COC

CRN	COURSE NAME	CREDITS
ORI 005	Manufacturing Orientation	0.00
AVC 110	Safety/OSHA 10	1.00
CWG 110	Welding Applications	4.00
CWG 115	SMAW	3.00
CWG 116	SMAW II	4.00
MTH 020	Math Fundamentals	3.00
<b>Total</b>		<b>15.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August	October
January	March
June	

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

<b>PROGRAM TOTAL</b>	<b>\$3,329.00</b>
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\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

# Surgical Technology, AAS

CRN	COURSE NAME		CREDITS
BIO 150	Human Anatomy & Physiology		5.00
SOC 101	Principles of Sociology		3.00
ALH 101	Medical Terminology		3.00
	Communication Elective		3.00
BIO 160	Microbiology		5.00
CPR 001	CPR for Healthcare Providers		1.00
ENG 101	Composition I		3.00
MTH 101	Intermediate Algebra		3.00
PSY 101	General Psychology		3.00
SGT 101	Introduction to Surgical Technology		4.00
SGT 115	Surgical Procedures I		4.00
SGT 120	Principles & Practices in Surgical Technology		5.00
SGT 140	Principles & Practices in Surgical Technology Lab		3.00
SGT 107	Pharmacology for Surgical Technology		3.00
SGT 119	Surgical Technology - Clinical Experience I		4.00
SGT 125	Surgical Procedures II		5.00
SGT 129	Surgical Technology - Clinical Experience II		5.00
SGT 130	Surgical Technology - Clinical Experience III		4.00
SGT 145	Surgical Technologist Exam Review		1.00
<b>Total</b>			<b>67.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August*	October
January	March
June	*Entry point of SGT courses
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$12,529.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	29
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2015); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually	Hourly
\$45,940	\$22.09

# Surgical Technology, TC

CRN	COURSE NAME	CREDITS
ALH 101	Medical Terminology	3.00
BIO 150	Human Anatomy & Physiology	5.00
BIO 160	Microbiology	5.00
CPR 001	CPR for Healthcare Providers	1.00
SGT 101	Introduction to Surgical Technology	4.00
SGT 115	Surgical Procedures I	4.00
SGT 120	Principles & Practices in Surgical Technology	5.00
SGT 140	Principles & Practices in Surgical Technology Lab	3.00
SGT 107	Pharmacology for Surgical Technology	3.00
SGT 119	Surgical Technology - Clinical Experience I	4.00
SGT 125	Surgical Procedures II	5.00
SGT 129	Surgical Technology - Clinical Experience II	5.00
SGT 130	Surgical Technology - Clinical Experience III	4.00
SGT 145	Surgical Technologist Exam Review	1.00
<b>Total</b>		<b>52.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August*	October
January	March
June	*Entry point of SGT courses
LOCATION	
Southside Center 4501 E. 47th Street South   Wichita, KS 67210 316.677.1500 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$11,014.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	29
Placement rate	100%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$45,940	Hourly \$22.09

# Thermographer, COC

CRN		COURSE NAME	CREDITS
AVC	102	Precision Instruments	1.00
AVC	110	Safety/OSHA 10	1.00
NDT	112	Ultrasonic Testing Method Level I	3.00
NDT	155	Thermography Level I	3.00
NDT	156	Thermography Level II	3.00
NDT	157	Thermography Level III	3.00
Total			14.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$3,236.00
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	

# Ultrasonic Technician, COC

CRN	COURSE NAME	CREDITS
NDT 112	Ultrasonic Testing Method Level I	3.00
NDT 113	Ultrasonic Testing Method Level II	3.00
NDT 115	Introduction to Ultrasonic C-Scan and Phased Array	3.00
NDT 120	Ultrasonic Phased Array II	2.00
NDT 125	Phased Array Time of Flight Diffraction (TOFD)	2.00
<b>Total</b>		<b>13.00</b>

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

## START DATES

August

## LOCATION

National Center for Aviation Training  
4004 N. Webb Road | Wichita, KS 67226  
316.677.9400 Get maps at [watc.edu/campuses](http://watc.edu/campuses)

## COSTS\*

**PROGRAM TOTAL** **\$3,199.00**

\*Cost does not include online fees, books or tools.  
Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.

## WAGES

BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.

Annually	Hourly
\$82,070	\$39.46

# Vibration Analyst, COC

CRN			COURSE NAME	CREDITS
AVC	102	Precision Instruments		1.00
AVC	110	Safety/OSHA 10		1.00
NDT	150	Vibration Analysis Level I		3.00
NDT	151	Vibration Analysis Level II		3.00
NDT	152	Vibration Analysis Level III		3.00
MTH	020	Math Fundamentals		3.00
Total				14.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400    Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$2,841.00
<p>*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.</p>	

# Welding, AAS

CRN		COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation	0.00
AVC	110	Safety/OSHA 10	1.00
AVC	112	Blueprint Reading	2.00
CWG	110	Welding Applications	4.00
CWG	141	Oxy Acetylene Welding & Cutting	2.00
CED	115	Computer Applications	3.00
PDV	105	Global Professional Standards	2.00
CWG	120	GMAW	3.00
CWG	121	GMAW II	4.00
CWG	149	Materials & Testing	2.00
		Communication Elective	3.00
CWG	103	Print Reading II/Welding	1.00
CWG	115	SMAW	3.00
CWG	116	SMAW II	4.00
MTH	101	Intermediate Algebra	3.00
CWG	125	GTAW	3.00
CWG	126	GTAW II	4.00
CWG	130	Robotic Welding	1.00
CWG	145	Fabrication & Design	2.00
ENG	101	Composition I	3.00
		Technical Elective Credits - 8	
		(4 of the required credits must come from either	
		CWG242 CWG243 or CWG250)	8.00
		Social Science Elective	3.00
Technical Electives			
CWG	242	SMAW D1.1 Qualification	0.00
CWG	243	GMAW D1.1 Qualification	0.00
CWG	250	API 1104 Qualification	0.00
DIS	150	Directed Individual Studies	0.00
MCD	101	Introduction to CAD I	0.00
MCD	102	Introduction to CAD II	0.00
MMG	126	Machining II	0.00
MMG	142	Manual Lathes	0.00
Total			61.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
<b>PROGRAM TOTAL</b>	<b>\$13,318.00</b>
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	19
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$41,130	Hourly \$19.27

# Welding, TC

CRN		COURSE NAME	CREDITS
ORI	005	Manufacturing Orientation	0.00
AVC	110	Safety/OSHA 10	1.00
AVC	112	Blueprint Reading	2.00
CWG	110	Welding Applications	4.00
CWG	141	Oxy Acetylene Welding & Cutting	2.00
CED	101	Computer Essentials	2.00
PDV	105	Global Professional Standards	2.00
CWG	120	GMAW	3.00
CWG	121	GMAW II	4.00
CWG	149	Materials & Testing	2.00
MTH	020	Math Fundamentals	3.00
CWG	103	Print Reading II/Welding	1.00
CWG	115	SMAW	3.00
CWG	116	SMAW II	4.00
		Communication Elective	3.00
CWG	125	GTAW	3.00
CWG	126	GTAW II	4.00
CWG	130	Robotic Welding	1.00
CWG	145	Fabrication & Design	2.00
Total			46.00

\*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Coach for details. Visit [watc.edu/checklist](http://watc.edu/checklist) for program admission requirements.

START DATES	
August	October
January	March
June	
LOCATION	
National Center for Aviation Training 4004 N. Webb Road   Wichita, KS 67226 316.677.9400 Get maps at <a href="http://watc.edu/campuses">watc.edu/campuses</a>	
COSTS*	
PROGRAM TOTAL	\$10,524.00
*Cost does not include online fees, books or tools. Financial Assistance may be available to those who qualify. Total calculated based on the lowest cost combination of elective credits required.	
SUCCESS RATE	
This chart contains the results of the one-year follow-up study conducted of 2014 Wichita Area Technical College postsecondary program completers. WATC defines success as those graduates who have found placement in a job, the military or are enrolled in advanced study.	
Eligible graduates contacted in follow-up study	19
Placement rate	95%
WAGES	
BLS Data Source: Bureau of Labor Statistics (2012); Mean Wages of selected occupation in Wichita, KS. WATC does not guarantee the below wages.	
Annually \$41,130	Hourly \$19.27





# WATC

WICHITA AREA  
TECHNICAL COLLEGE

## **COURSE DESCRIPTIONS**

#### ACC 104 Computerized Accounting

Emphasizes a fundamental understanding of corporate and cost accounting. Topics include: accounting for a corporation, statement of cash flows, cost accounting, budgeting and long term liabilities. Laboratory work demonstrates theory presented in class.

Total Credits 3.00

#### ACC 105 Fundamentals of Accounting

This is a course designed for students who want a working knowledge of accounting, but not to the extent as a person working primarily in the accounting field. Although the basic accounting principles are learned and applied, the course, in comparison to Principles of Accounting I, covers a smaller amount of material at a somewhat slower pace. It is recommended for students with no previous accounting background. Total Credits 3.00

#### ACC 130 Managerial Accounting

This course studies management tools for business decision making, including study of the evaluation of financial condition and performance of business. Emphasis is given to the process of formulating and utilizing sound accounting data to evaluate alternatives involved in managerial decision-making necessary for planning, execution, and control of a business enterprise. Total Credits 3.00

#### ACC 152 Payroll Accounting

Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers and analyzing and journalizing payroll transactions. Provides first-hand experience in calculating payroll, completing payroll taxes and preparing records and reports. Topics include payroll tax entries, preparing payroll registers and maintaining employees' earnings records using computerized software. Total Credits 3.00

#### ACC 160 Principles of Accounting I

This course is designed to help the students develop a basic understanding of accounting theory, concepts and procedures. It will provide a foundation for further study for the student seeking a career in accounting or business administration or for the student entering into the occupational field. Total Credits 3.00

#### ACC 170 Principles of Accounting II

This course is a continuation of ACC 160 Principles of Accounting I. It is a study of corporations which includes organization and operations; stockholders' equity, earnings and dividends; long term assets and liabilities, investments, income tax and their effort on business decisions; and assessing a company's financial performance. Total Credits 3.00

#### ACP 100 Introduction to Coatings & Paint Technology

The objective of this course is to discuss the fundamentals of paint composition, application, and processing. As such, basic ingredients of paint properties will be discussed. Paint selection, performance criteria, application methods, defects, problem resolution, future paint and raw materials needs will be discussed. Total Credits 3.00

#### ACP 101 Surface Preparation & Coatings

This course is a study of surface preparation from various coating and painting applications on all interior and exterior aircraft components. The content includes safety procedures including hazardous waste, surface preparations techniques, material application techniques and effectively using industry based technologies. Total Credits 4.00

#### ACP 102 Performance & Durability of Coatings

The objective of this course is to discuss facts and findings affecting performance and permanence of coatings. Topics include: methods of enhancing durability and permanence, properties and selection of raw materials processes leading to robust coatings, service – life prediction, and coating evaluation. Total Credits 3.00

#### ACP 103 Color Technology

This course is a study of the fundamentals of visual color match evaluation and of color measurement for industrial color control. Students utilize industry appropriate technologies on projects that demonstrate proper lighting, observe testing, objective terminology for color difference and determination of tolerances. Students analyze measurement data of the same industrial sample to study the correlation of visual to measured results Total Credits 3.00

#### ACP 104 Specialized Coating Processes

This course is a study in special coatings for aerospace structures. Topics include mixing, application and curing coating materials, environmental effects of coating materials and general and hazardous material handling safety. The course also covers equipment used in these processes. Total Credits 3.00

#### ACP 105 Specialized Detailing

This course provides instruction in the equipment, material, and techniques used in the application of special paints. Emphasis will be placed on aircraft refinishing procedures. Topics include: safety; paint identification; equipment use and maintenance; color application; original finish sealing; panel-spot repair and blending; thinners, reducers, and additives; and composite materials, plastics, and rubber refinishing. Total Credits 3.00

#### ACP 106 Aerospace Coatings & Materials

This course covers advanced technologies for coating materials and applications. Topics include: coating technologies that address aesthetics, durability, and environmental issues. Total Credits 3.00

#### ACP 107 Aerospace Program Management

This course will introduce basic program management skills and techniques. Topics covered include: role of project management, communication, interpersonal skills, schedule management, interfacing with other units, project management software use, compliance reporting, and risk management. Total Credits 3.00

#### ACP 110 Integrated Assembly Capstone Project

This course addresses the full spectrum of the Coating Technicians role within the industry. Problem solving strategies within a team concept will be emphasized. Industry and applied research projects will be assigned. Total Credits 4.00

#### ACP 111 Technical Co-Operative Project

Students will work on a part-time basis in a job directly related to applied technologies. The employer and supervising instructor will evaluate students' progress. Upon course completion, students will be able to apply skills and knowledge in an employment setting. Total Credits 4.00

#### ACP 115 Introduction to Airbrush

This course is designed as an introduction to airbrush paint. The ability to draw is not mandatory, patience is helpful. Topics covered in this class include a brief history and structure of the airbrush, comparing types and uses for different models and proper cleaning and managing of airbrush equipment. Instruction on the proper triggering and holding of the airbrush, control exercises and various techniques will be addressed. Total Credits 3.00

#### ACP 120 Intermediate Airbrush I

This course deals with promoting advanced technique skills that have been implemented in the introduction airbrush course and begin building a student portfolio. Students will have both required technique projects and student initiated subject matters in this course. Total Credits 3.00

#### ACP 125 Intermediate Airbrush II

This course deals with the continued progression of advanced technique skills that have been implemented in previous airbrush courses and building a student portfolio. Students will have both required technique projects and student initiated subject matters in this course. Total Credits 3.00

#### ACP 160 Advanced Airbrush

This course deals with refining advanced technique skills that have been implemented in previous airbrush courses and building a student portfolio. Students will have both required technique projects and student initiated subject matters in this course. Students will learn how to prepare and submit their airbrush work for art competition. Total Credits 3.00

#### ACR 112 HVAC Fundamentals

Introduce basic concepts and theories of refrigeration. Topics include: the laws of thermodynamics, pressure and temperature relationships, heat transfer, refrigerant identification, the refrigeration cycle, and safety. Total Credits 4.00

#### ACR 113 Electrical Fundamentals

Provides instruction in identifying, installing, and testing commonly used electrical components in an air conditioning system. Topics include: pressure switches, overload devices, transformers, magnetic starters, other commonly used controls, diagnostic techniques, installation procedures, and safety. Total Credits 4.00

#### ACR 116 Workplace Skills

Upon successful completion of this course, the student should be able to identify the job skills necessary to have a successful career in the field of their choice. Topics include: listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, time and resource management, work ethics, career planning and resume building. Total Credits 1.00

#### ACR 117 Intro to Mechanical Refrigeration

The students will apply knowledge previously learned in HVAC Fundamentals to Ice Machines, refrigerators and commercial coolers. Students will learn the function of the specialized electrical circuits and how to service and repair these systems. Total Credits 4.00

#### ACR 118 Electrical Fundamentals II

Students will be introduced to motor theory and explore motor applications. This course builds on previous knowledge gained in Electrical Fundamentals I and requires a firm understanding of magnetism and voltage production. Motor trouble shooting will be introduced. Types of motors covered will be single phase motors, three phase and ECM motors. Total Credits 1.00

#### ACR 119 Advanced Electrical Theory for HVAC

Advanced Electrical Theory for HVAC is a continuation of Electrical Fundamentals and places an emphasis on developing systematic diagnosis and troubleshooting methods and procedures that will enable the student to become a highly-skilled, professional HVAC-R service technician. Total Credits 2.00

#### ACR 121 Heating System Fundamentals

Introduces principles of combustion and service requirements for gas heating systems. Topics include service procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion and safety. Total Credits 3.00

#### ACR 122 Heating System Fundamentals II

The Heating System Fundamentals II course is designed to walk students thorough the requirements of the Uniform Mechanical Code in relation to Gas Piping and exhaust ventilation. Student will gain a thorough understanding and be able to apply skills in sizing vents and pipe upon completion of this course. Total Credits 2.00

#### ACR 123 Heat Loads and Duct Sizing

The course will teach students to analyze heat flow characteristics as they study heat loss and heat gain factors as it pertains to residential HVAC design. Topics will include the effects of selected materials and the layout of the system for the purpose of trouble shooting, load estimation and duct sizing. Total Credits 4.00

#### ACR 124 Advanced Heating Systems

This course will introduce students to electric furnaces and hydronic heating with an emphasis on the electrical systems of those units and code requirements for the safe installation of such equipment. Indoor air quality will be discussed in detail as a major factor in human comfort. Total Credits 3.00

#### ACR 126 EPA 608

Prepares students for the certification exam required by federal and state governments and the heating, ventilation, air conditioning and refrigeration (HVAC/R) industry. Students focus on Environmental Protection Agency (EPA) refrigerant handling exams and Industry Competency Exams (ICE). Total Credits 1.00

#### ACR 127 Heat Pumps

Provides instruction on the principles, application and operation of a residential heat pump system. Topics include installation procedures, servicing procedures, electrical components, geothermal ground source energy supplies, dual fuel, troubleshooting, valves and safety. Total Credits 3.00

#### ACR 128 Commercial HVAC

This course will introduce students to the commercial applications of various HVAC systems. A strong foundation in refrigeration theory is required as well as a comprehensive understanding of system airflow and electrical fundamentals. Students who complete this course will be skilled in reading advanced electrical schematics and be able to describe the function and application of various commercial systems and components including Direct Digital Control systems and frequency drives. This is a capstone course. Total Credits 4.00

#### ACR 129 Commercial HVAC Lab

This course continues the introduction to Commercial HVAC systems through hands-on training. Students will be performing basic maintenance, repairs and troubleshooting on functioning light commercial and commercial equipment. Total Credits 4.00

#### ACR 140 Sheet Metal Fabrication I

Upon successful completion of this course, the student should be able to identify the components, equipment, and operation for sheet metal layout and fabrication. The patterns will be fabricated and joined into a line of fittings. This gives the most complete test of pattern accuracy and also provides the experience needed by a competent layout person. The student will be required to wear safety glasses. Total Credits 3.00

#### AER 106 Aerospace Manufacturing Tooling Orientation

This course provides an overview of the Tooling safety hazards, traits employers value, various roles and responsibilities within advanced manufacturing teams and what elements are necessary to make a manufacturing company successful. Total Credits 1.00

#### AER 111 Tap and Die

This course provides knowledge and technical skills on taps and dies. Topics include 60-degree thread form, common fastener thread series and markings on taps. The student will learn the process of hand tapping, the process of repairing a thread with a threading die and the process of installing a threaded insert. Total Credits 1.00

#### AER 115 Aero structures Assembly

Students will master the techniques associated with aerospace mechanical assembly. Topics include the identification, installation and removal of fasteners, sealant applications, component assembly, wing structures, fuselage structures, curved surfaces, and repair techniques. Students learn in an environment which combines interactive online delivery of theoretical content with hands on application in a state of the art assembly laboratory. Total Credits 6.00

#### AER 116 Hand and Power Tools for Aerospace Tooling

This course provides technical knowledge on hand power tools used by a toolmaker in the aerospace industry. The student will learn about die grinders, disco grinders and magnetic drills. Total Credits 1.00

#### AER 126 Tooling Capstone

This course provides the specific technical knowledge and skills necessary to utilize hand and power tools to create a drill jig. This course emphasizes the importance of critical features, the process of permanent assembly and the role of toolmakers in the manufacturing environment Total Credits 4.00

#### AER 135 Quality Assurance Orientation

This course provides an overview of the Quality Assurance Program. The course includes an overview of the expectations of the program, potential safety hazards, traits employers value, various role and responsibilities within advanced manufacturing teams and what elements are necessary to make a manufacturing company successful. Total Credits 1.00

#### AER 140 Assembly Mechanic Orientation

This course provides an overview of the technical and mechanical knowledge and skills necessary to qualify for employment in the aerospace industry as an assembly mechanic. The course presented using interactive online content. Total Credits 1.00

#### AER 150 Assembly Overview I

This course is designed to provide the student with a general overview of assembly techniques used in aviation. Working in a hands-on setting, students will learn the basics of aircraft assembly while focusing on inspection techniques. Students learn in an environment which combines interactive online delivery of theoretical content with hands on application in a state of the art assembly laboratory. Total Credits 3.00

#### AER 155 Aerospace Plumbing

This course is designed to develop basic theory and knowledge of aircraft fluid lines and fittings. Students will participate in hands on projects with an emphasis on inspection techniques used in the aviation industry.

Total Credits 2.00

#### AER 165 Electrical Assembly Mechanic Orientation

The electrical certificate educational program is a tremendous opportunity for you to learn technical skills that are needed for employment in the aerospace manufacturing industry. Your participation in this program is a unique opportunity for you to set a course for success on your career journey. This course exposes students to the potential to a good career in the electrical wiring installation portion of aircraft manufacturing. Total Credits 1.00

#### AER 166 Electrical Hand Tools

This course familiarizes the student with various hand tools and connectors used in the installation of electrical wiring in aerospace manufacturing. Total Credits 1.00

#### AER 167 Basic Drilling & Riveting/Ground Stud Installation

This course familiarizes the student with power tools and acquired skills used in drilling a quality hole and installing driven fasteners. In conjunction with this procedure, Ground Studs will be installed and electrical resistance verified. Total Credits 2.00

#### AER 168 Wire Installation Drawings

This course familiarizes with the various drawings utilized in aerospace wire bundle installation, includes engineering drawing review, wire bundle installation paperwork and electrical production illustrations. Total Credits 1.00

#### AER 169 Crimping & Cables

This course familiarizes the student with specifications and skills required to strip insulation from wires, crimp connectors on wires, install connectors on coaxial cables, install connectors in plugs and manufacture a wire bundle according to a blueprint. Total Credits 2.00

#### AER 170 Fiber Optics for Aerospace

This course familiarizes the student with the advantages and disadvantages of the use of Fiber Optics in aircraft. Included are overviews how Fiber Optics works, manufacturing processes, handling of Fiber Optics and particulars of quality and safety. Total Credits 1.00

#### AER 175 Wire Bundle Basics

This course familiarizes the student with wiring in airplanes, wire and cable basics, wire markings, documents used in wire bundle installation, circular connectors and contacts, connector installation, MTC connectors and tying wire bundles. Total Credits 1.00

#### AER 180 Soldering

The soldering course acquaints the student with the proper way to safely perform soldering procedures in aviation applications. The importance of correct procedures is emphasized as the student performs wire stripping along with various soldering and desoldering operations. Total Credits 1.00

#### AER 185 Wire Bundle Installation

This course familiarizes with the requirements for wire bundle installation culminating in the installation of several wire bundles on a project board. Total Credits 2.00

#### ALH 101 Medical Terminology

Presents basic principles of medical word-building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject. Total Credits 3.00

#### ALH 105 First Aid & CPR

This course is designed to show the student how to deal with respiratory emergencies that could lead to cardiac arrest, how to give first aid for cardiac emergencies, also to obtain knowledge for prevention and first aid treatment of common emergencies as outlined by The American Red Cross. Total Credits 3.00

#### ALH 110 Principles of Nutrition

Designed to help students increase their knowledge concerning their personal state of nutrition using self-studies and computer analysis. Upon completion of this course the student will be able to evaluate a person's state of nutrition considering the impact of social, scientific, psychological, political, and environmental influences upon eating patterns and habits. Total Credits 3.00

#### ALH 115 Pharmacology

This course will provide the basic pharmacology principles with an emphasis on a broad discussion of the primary medications in each of the pharmaceutical classification categories. This course is designed to meet the pharmacology needs of students enrolled in pre-allied health majors and would be beneficial for others in the allied health field who desire a greater understanding or pharmacological principles related to diseases, effects of drugs on different systems of the body, interaction of drugs, side effects, contraindications and effectiveness in relation to dosages. Total Credits 3.00

#### ALH 130 Emergency Preparedness for Health Professionals

This course is designed to provide health care professionals with an orientation for their possible future roles in disaster response and the importance of staying within the scope of practice of the profession. Students will be prepared to meet the expectations of their employers, to volunteer effectively, and to be confident and safe responders. Total Credits 1.00

#### ALH 131 Diseases, Disorders & Diagnostic Procedures

Description Course focuses on diseases and disorders by body systems that are frequently diagnosed and treated in the medical setting as well as the common diagnostic procedures used in the diagnostic process. Total Credits 2.00

#### ALH 135 Spanish for Health Care Providers

This workshop is designed to provide health care providers with basic and practical knowledge of the Spanish language as applied in the medical field. Students will be prepared to facilitate medical care delivery to their Spanish speaking clients. Emphasis will be placed on ability to communicate and develop a vocabulary according to the needs of each participant. Total Credits 1.00

#### ALH 155 Pharmacology for Allied Health

Focuses on knowledge and skills necessary for safe and therapeutic drug therapy. Emphasis is placed on drug identification and classification, pharmacological actions, side effects, as well as the legal and ethical considerations of pharmacology. Total Credits 3.00

#### ALH 175 Pathophysiology

This course focuses on the essential mechanisms of disordered function which produces common diseases. Common diseases are discussed, implementing examples of the basic processes covered. This is an introductory course that prepares students entering the medical field with accessible, useable and practical information. Total Credits 4.00

#### AMT 105 Technical Mathematics

This course is designed to provide the technical math principles required for the Airframe and/or Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 107 Aircraft Drawings

This course is designed to develop theory and knowledge of blueprint reading skills with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and/or Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 108 Aircraft Coverings

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft coverings. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #4 and #5. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 109 Physics

This course is designed to develop the basic principles, fundamentals, and technical procedures of physics as they relate to the Airframe and/or Powerplant rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00



#### AMT 111 Materials & Processes

This course is designed to develop correct and safe usage of aircraft hardware, heat treating processes, non-destructive inspection, and precision measurements with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams.

Total Credits 4.00

#### AMT 112 Assembly & Rigging

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft Assembly and Rigging. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Airframe mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exam. Total Credits 4.00

#### AMT 113 Basic Electricity

A course designed to provide the technical skills to apply the electrical and electronic principles required of the Airframe and/or Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 4.00

#### AMT 115 Weight & Balance

This course is designed to calculate and apply aircraft weight and balance principles as required of the Airframe and/or Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 116 Aircraft Instrument Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft instrument systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #36 and #37. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 117 Mechanics Privileges & Limitations

This course is designed to develop basic theory and knowledge of Mechanic Privileges and Limitations with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and/or Powerplant rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 119 Maintenance Publications, Forms, & Records

This course is designed to develop basic theory and knowledge of maintenance publications, forms & records with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and/or Powerplant rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 120 Airframe Inspection

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to airframe inspection. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subject #28. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 123 Cleaning & Corrosion Control

This course is designed to develop basic theory and knowledge of cleaning and corrosion control with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and/or Powerplant rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 125 Fluid Lines & Fittings

This course is designed to develop basic theory and knowledge of aircraft fluid lines and fittings with specific emphasis on Federal Aviation Administration Regulations that pertain to Airframe and/or Powerplant mechanics. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00



#### AMT 127 Ground Operations & Servicing

This course is designed to develop safe skills and technical knowledge in Ground Operation and Servicing procedures with special emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and Powerplant mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 131 General Review & Test

Upon completion of the General curriculum this course is designed to prepare the student for the FAA Written, Oral and Practical exams. Total Credits 0.00

#### AMT 136 Propellers

This course is designed to develop correct safety practices, comprehensive knowledge, and the technical skills required for aircraft propeller maintenance procedures, with specific emphasis on Federal Aviation Administration Regulations that pertain to Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78 % (percent) for the written and Lab Project exams. Total Credits 4.00

#### AMT 151 Aircraft Electrical Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft electrical systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #48, #49, and #50. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 5.00

#### AMT 153 Hydraulic & Pneumatic Power Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to hydraulic and pneumatic power systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #30, #31, and #32. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 155 Aircraft Landing Gear Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft landing gear systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subject #29. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 3.00

#### AMT 159 Aircraft Fuel Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft fuel systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #41, #42, #43, #44, #45, #46, and #47. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 161 Fire Protection Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to fire protection systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #54 and #55. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 163 Ice & Rain Control Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to ice and rain control systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subject #53. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 165 Cabin Atmosphere Control Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to cabin atmosphere control systems. The curriculum is designed to meet specific Federal

Aviation Administration Regulations that pertain to Airframe Subjects #33, #34, and #35. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 167 Aircraft Welding

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to airframe aircraft welding. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Airframe mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 169 Communication & Navigation Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to communication and navigation systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #38, #39, and #40. Academic standard for passing this class is a minimum of 78% for the written and Lab project. Total Credits 2.00

#### AMT 173 Position & Warning Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to airframe position and warning systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Airframe mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 177 Wood Structures

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to airframe wood structures. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Airframe mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 179 Aircraft Sheet Metal & Non-Metallic Structures

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to airframe aircraft sheet metal and non-metallic structures. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Airframe mechanic. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 7.00

#### AMT 183 Aircraft Finishes

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform application and maintenance procedures relevant to aircraft finishes. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Airframe Subjects #6, #7, #8, and #9. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams.

Total Credits 2.00

#### AMT 186 Airframe Review & Test

Upon completion of the Airframe curriculum this course is designed to prepare the student for the FAA Written, Oral and Practical exams. Total Credits 3.00

#### AMT 200 Reciprocating Engines

This course is designed to develop safety practices, comprehensive knowledge and the technical skills that are required for maintenance and operations of reciprocating engines, with specific emphasis on Federal Aviation Administration Regulations that relate to the Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab Project exams. Total Credits 9.00

#### AMT 202 Engine Inspection

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft engine inspection. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 203 Powerplant Ignition Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft engine ignition and starting systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 3.00

#### AMT 204 Engine Fuel Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft fuels and fuel systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 206 Auxiliary Power Units

This course is designed to develop correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to auxiliary power units. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to Powerplant subject #41. Academic standard for passing this class is a minimum of 78% for the lab projects and written exams. Total Credits 1.00

#### AMT 207 Fuel Metering Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft fuel metering systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 3.00

#### AMT 208 Engine Electrical Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft engine electrical systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and lab project exams. Total Credits 2.00

#### AMT 211 Powerplant Cooling Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to Powerplant cooling systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 213 Lubrication Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft lubrication systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 2.00

#### AMT 217 Induction Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to engine Induction & Airflow systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 219 Powerplant Exhaust Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft engine Exhaust and Reverser systems. Academic standard for passing this class is a minimum of 78% for the written and Lab project exams. Total Credits 1.00

#### AMT 223 Powerplant Fire Protection Systems

This course is designed to develop technical knowledge and skills required to operate and service aircraft engine fire protection systems with specific emphasis on the Federal Aviation Administration Regulations that pertain to the Powerplant mechanic.

Academic standard for passing this class is a minimum of 78% for the written and lab project exams. Total Credits 1.00

#### AMT 225 Powerplant Instrument Systems

This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft engine instrument systems. The curriculum is designed to meet specific Federal Aviation Administration Regulations that pertain to the Aircraft Powerplant Mechanic rating. Total Credits 1.00

#### AMT 227 Turbine Engines

This course is designed to develop safety practices, comprehensive knowledge and the technical skills that are required for the maintenance and operation of aircraft turbine engines, with specific emphasis on Federal Aviation Administration Regulations that relate to the Powerplant Mechanic rating. Academic standard for passing this class is a minimum of 78% for the written and Lab Project exams. Total Credits 8.00

#### AMT 231 Powerplant Test & Review

Upon completion of the Power plant curriculum this course is designed to prepare the student for the FAA Written, Oral and Practical exams. Total Credits 3.00

#### AMT 250 Accelerated Certification - General/AirFrame

This review course assists the student in preparation for FAA testing for the Mechanic's Airframe License. Topics covered include: Technical Math, Physics, Basic Electricity, Aircraft Drawings, Maintenance Forms, Mechanic Privileges, Ground Operations, Weight& Balance, Materials & Processes, Fluid Lines & Fittings, Cleaning & Corrosion, Sheet Metal, Wood Structures, Aircraft Coverings, Aircraft Finishes, Welding, Aircraft Fuel Systems, Hydraulic/Pneumatic Systems, Assembly & Rigging, Aircraft Landing Gear Systems, Position & Warning Systems, Aircraft Electrical Systems, Fire Protection Systems, Ice & Rain Control Systems, Cabin Atmosphere & Control, Aircraft Instrument Systems, Communication & Navigation, and Airframe Inspection. Total Credits 3.00

#### AMT 251 Accelerated Certification - General/Powerplant

This review course assists the student in preparation for FAA testing for the Mechanic's Airframe and Powerplant License. Topics covered include: Technical Math, Physics, Basic Electricity, Aircraft Drawings, Maintenance Forms, Mechanic Privileges, Ground Operations, Weight& Balance, Materials & Processes, Fluid Lines & Fittings, Cleaning & Corrosion, Reciprocating Engines, Turbine Engines, Engine Fuel Systems, Auxiliary Power Units, Propellers, Engine Instrument Systems, Engine Fire Protection Systems, Engine Electrical Systems, Ignition & Starting Systems, Engine Lubrication Systems, Engine Cooling Systems, Fuel Metering Systems, Induction & Airflow Systems, Engine Exhaust & Reverser Systems, and Engine Inspection. Total Credits 3.00

#### AMT 252 Accelerated Certification - General/Airframe/Powerplant

This review course assists the student in preparation for FAA testing for the Mechanic's Airframe and Powerplant License. Topics covered include: Technical Math, Physics, Basic Electricity, Aircraft Drawings, Maintenance Forms, Mechanic Privileges, Ground Operations, Weight& Balance, Materials & Processes, Fluid Lines & Fittings, Cleaning & Corrosion, Sheet Metal, Wood Structures, Aircraft Coverings, Aircraft Finishes, Welding, Aircraft Fuel Systems, Hydraulic/Pneumatic Systems, Assembly & Rigging, Aircraft Landing Gear Systems, Position & Warning Systems, Aircraft Electrical Systems, Fire Protection Systems, Ice & Rain Control Systems, Cabin Atmosphere & Control, Aircraft Instrument Systems, Communication & Navigation, Airframe Inspection, Reciprocating Engines, Turbine Engines, Engine Fuel Systems, Auxiliary Power Units, Propellers, Engine Instrument Systems, Engine Fire Protection Systems, Engine Electrical Systems, Ignition & Starting Systems, Engine Lubrication Systems, Engine Cooling Systems, Fuel Metering Systems, Induction & Airflow Systems, Engine Exhaust & Reverser Systems, and Engine Inspection. Total Credits 5.00

#### APE 116 Electrical I

The first year of apprenticeship working includes extensive training in the area safety, blue print reading electricity basics and National Electrical Code (NEC). Students will use the NEC in all five classes. This course supports APE 117 with classroom application of lab topics Total Credits 2.00

#### APE 117 Electrical Lab I

The first year of apprenticeship working includes extensive training in the area safety, blue print reading electricity basics and National Electrical Code (NEC). Students will use the NEC in all five classes. Students will complete 2,000 hours on-the-job training during this course. Total Credits 5.00

#### APE 118 Electrical II

The second year of apprenticeship training is designed to reinforce concepts learned in the classroom and on the job in the first year. In addition new topics are introduced including wire sizing, electromagnetism, and motor controls. This course supports APE 119 with classroom application of lab topics. Total Credits 2.00

#### APE 119 Electrical Lab II

The second year of apprenticeship training is designed to reinforce concepts learned in the classroom and on the job in the first year. In addition new topics are introduced including wire sizing, electromagnetism, and motor controls. Students will complete 1,500 hours on-the-job training during this course. Total Credits 5.00

#### APE 120 Electrical III

In the third year students will learning in the areas of motor controls while new topics including transistors and diode applications are introduced. This course is designed to support the lab course with classroom based instruction. Total Credits 2.00

#### APE 121 Electrical Lab III

In the third year students will learning in the areas of motor controls while new topics including transistors and diode applications are introduced. Students will complete 1,500 hours on-the-job training during this course. Total Credits 5.00

#### APE 122 Electrical IV

In the fourth year students continue to work with motor controls however this is enhanced by extensive work in the area of programmable logic controls. This course is designed to support the Electrical IV lab course with classroom instruction. Total Credits 2.00

#### APE 123 Electrical Lab IV

In the fourth year students continue to work with motor controls however this is enhanced by extensive work in the area of programmable logic controls. Students will complete 1,500 hours on-the-job training during this course. Total Credits 5.00

#### APE 124 Electrical V

This is the fifth and final year of the apprenticeship coursework. In this course students will apply all aspects of program to on the job training. In addition, some additional topics will be introduced including instrument calibration and loop tuning. Fire alarm systems and security systems are also covered extensively. This course is designed to support Electrical Lab V with classroom instruction Students will also prepare to take the International Municipal Signaling Association (ISMA) licensure exam. Total Credits 2.00

#### APE 125 Electrical Lab V

This is the fifth and final year of the apprenticeship coursework. In this course students will apply all aspects of program to on the job training. In addition, some additional topics will be introduced including instrument calibration and loop tuning. Fire alarm systems and security systems are also covered extensively. Students will complete 1,500 hours on-the job training during this course. Students will also prepare to take the International Municipal Signaling Association (ISMA) licensure exam. Total Credits 5.00

#### APE 140 Electrical Health and Safety

In this course student's focus on the unique elements associated with electrical safety. Student will also be exposed to OSHA regulations and CPR practices. Total Credits 2.00

#### APE 145 Electrical Block Exam Prep

This course is designed to assist students in their review of the NEC (National Electrical Code) as they prepare to take the electrical licensure exam (Thompson Prormetic). The code book is studied in sections using Codeology. Codeology is a system that teaches a student the layout and sections of the 800 page code. Students will also learn many calculations required by the code to properly install electrical equipment. Total Credits 5.00

#### APE 150 Electrical Special Topics

The special topics course is designed to provide instruction on two unique topics. First participants will be introduced to problems associated to harmonics and power factor, caused by non-linear and inductive loads. The second topic was developed by NECA (National Electrical Contractors Association). The section is used to help future supervisors (foreman) to understand their role as a manager. Total Credits 2.00

#### ART 100 Art Appreciation

This course is designed to develop a personal appreciation of art. By combining a study of concepts and artist's work, the student should improve one's judgment and ability to understand art critically. Total Credits 3.00

#### AVC 110 Safety/OSHA 10

The 10- Hour General Industry Outreach training Program is intended to provide entry level general industry workers broad awareness on recognizing and preventing hazards on a general industry site. The training covers a variety of safety and health hazards which a worker may encounter at a general industry site. OSHA recommends this training as an orientation to occupational safety and health. Workers must receive additional training on hazards specific to their job. Training will emphasize hazard identification, avoidance, control and prevention, not OSHA standards. Instructional time will be a minimum of 10 hours. Total Credits 1.00

#### AVC 102 Precision Instruments

This course provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environment. In an on line interactive environment students will learn to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios. Total Credits 1.00

#### AVC 103 Geometric Dimensioning & Tolerancing

Provides an understanding of the basic terms and principles of Geometric Dimensioning and Tolerancing. The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols. This course is taught using and interactive on line environment. Total Credits 1.00

#### AVC 104 Quality Control Concepts

This course covers quality assurance principles including the history of the quality movement, group problem solving, data collection, control charts, statistical methods such as statistical process control (SPC), process capability studies, and the concepts associated with lean manufacturing. Total Credits 1.00

#### AVC 105 Aircraft Familiarization

This course is designed to provide an introduction to the world of aviation. Using an interactive on line environment students will be introduced to basic aerospace concepts including the history of flight, principles of flight, and the role of regulation in the industry and the primary assemblies and structures of an airplane. Total Credits 1.00

#### AVC 107 Fundamentals for Aerospace Manufacturing

This course provides an overview of the materials and processes used in manufacturing high performance, lightweight, and reliable structures for aerospace products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology. Instruction will take place using an interactive on line environment. Total Credits 1.00

#### AVC 108 Aircraft Systems & Components

This course is designed to provide the aviation student with an in-depth knowledge of the major systems and components of the aircraft. Using an interactive on line environment students will learn the operation of each of the major systems. Total Credits 4.00

#### AVC 112 Blueprint Reading

This course is an introduction to reading and interpreting blueprints. Topics include blueprint views, lines, dimensions and tolerances and blueprint symbols. Working in an interactive online environment students' learn a systematic approach to reading blueprints. Total Credits 2.00

#### AVC 120 Introduction to Sealing

This course provides an introduction to basic sealing principles; including tools, sealant selection, application processes and cleaning methods. Instruction is delivered using interactive online course content. Total Credits 1.00

#### AVC 125 Bonding and Grounding

This course provides an overview of electrical bonding and grounding theory, required tools and procedures and final quality control. Students learn using interactive online content. Total Credits 1.00



#### AVC 135 Hand Tools

This course provides an introduction to the various hand tools used in aerospace industry. The course also introduces the student to several aerospace fasteners including temporary fasteners, bolts, and lock bolts, Hi-Lok and rivets. Total Credits 1.00

#### AVC 140 Electrical Bonding & Grounding

This course provides the specific technical and manufacturing skills and knowledge required to prepare electrical bonding and grounding locations in the aerospace industry. The topics are presented online using interactive content. Total Credits 1.00

#### AVC 145 Power Island

This course provides the technical knowledge and skills necessary to operate power island equipment. Students are introduced to the equipment using interactive online course content. Total Credits 1.00

#### AVC 150 Human Factors

This course provides students with an overview of the impact of human factors on the safe operation and maintenance of an aircraft. Topics will include a review of 12 most common human factors that can negatively impact the functioning of an aircraft and how to avoid these errors. Case studies will be used to help student apply what they learn to real world situations. Total Credits 1.00

#### AVC 155 Aircraft Manufacturing Advanced Fastening Practices

This course provides an overview of the knowledge and technical skills required for the installation of critical aviation structural fastener. These specific fasteners are required above and beyond the normal assembly and require specific techniques for installation. Total Credits 1.00

#### AVC 160 Aircraft Control Surface Rigging

This course provides an overview of the knowledge and technical skills required to perform maintenance procedures relevant to aircraft control surface rigging. Total Credits 1.00

#### AVC 165 Technical Writing

This course provides students with an overview of the process used to create effective technical documents. Topics include the three C's of good technical writing including clarity, conciseness and completeness, the five steps of creating successful technical documents, and the importance of accuracy. Total Credits 1.00

#### AVC 170 Conflict Resolution

This course provides the basics of good communication skills. Topics include the different views of conflict, types of listening skills and techniques for how to be an effective communicator; different conflict management styles such as positional bargaining, collaborative approach and the interest based relational approach. Total Credits 1.00

#### AVT 101 Basic Electricity & Electronics

This course is designed to introduce the student to the fundamental concepts of electricity and electronics that involve direct current (dc) and alternating current (ac), including series, parallel and series-parallel resistive circuits, magnetism electro-magnetism, capacitance, inductance, and transformers. Total Credits 3.00

#### AVT 102 Basic Electricity & Electronics Lab

This course is designed as the laboratory component to the AVT 101 course and will provide students with hands on experience with shop grade test equipment while performing experiments using LabVolt Computer Aided Instructional Electrical/Electronics Training System. Laboratory experiments are conducted on pre-assembled boards maximizing student productivity and allowing increased instructor interaction and support. Total Credits 3.00

#### AVT 103 Introduction to Avionics

This course is designed to give an overview of the entire avionics field. All major avionics systems, their components and fundamentals of system interactions will be examined. Common avionics abbreviations and acronyms, relevant FAA regulations, and system usages will be studied. Total Credits 3.00

#### AVT 105 Avionics Systems & Troubleshooting

This course introduces the student to avionics testing and troubleshooting. Students will study the troubleshooting theory of VHF

COM, VHF NAV, ILS, Marker Beacon, DME, Transponder, and Pitot-Static systems. Further study of complex wiring diagrams will help then student relate the theoretical to the practical. All theory oriented studies are performed under this class. Total Credits 2.00

#### AVT 106 Avionics Systems & Troubleshooting Lab

This course is the laboratory component of AVT105. The student will operate the most common avionics test equipment: and will learn to perform common functional tests: VHF COM, VHF NAV, ILS, Marker Beacon, Transponder, DME, SWR, and operation of a Time Domain Reflectometer. Troubleshooting of common avionics problems will also be introduced as students troubleshoot system faults on avionics system trainers and a variety of aircraft. All laboratory performance requirements in support of AVT 105 are performed in this class. Total Credits 3.00

#### AVT 107 Basic Communications Electronics

This course is designed to introduce the student to the fundamental concepts of electricity and electronics that involve resonant circuits, filters, semi-conductor diodes, junction transistors, field effect transistors, thyristors and operational amplifiers. Device characteristics as well as typical circuit applications will be studied. Total Credits 3.00

#### AVT 108 Wiring & Cannon Plug Lab

The student will learn methods of construction and repair of avionics system wiring harnesses. Students will learn and perform practice exercises with the most common types of aircraft connectors, tooling, and wiring systems used in today's aircraft. Total Credits 2.00

#### AVT 110 Aircraft Electrical, Communication, & Navigation Systems (Part I)

This course and its associated laboratory section is the first of two courses which study the electrical and electronic characteristics of typical aircraft electrical power generation and distribution systems, instrument systems, communications systems and navigation systems. In this first part of the course, students will advance through the design of a complete avionics installation, learning the primary system characteristics and interconnection requirements of typical avionics boxes. They will study aircraft wiring diagrams, learn a basic CAD system, design a small general aviation flight deck utilizing CAD. Total Credits 3.00

#### AVT 111 Aircraft Electrical, Communication, & Navigation Systems (Part I) Lab

This course is the laboratory component of AVT110. The student will operate CAD software to create and design an avionics flight desk design. The student will create an electrical load analysis and a cost breakdown for their design. Total Credits 3.00

#### AVT 112 Aircraft Electrical, Communication, & Navigation Systems (Part II)

This course and its associated laboratory section continues the study of typical avionics systems. In this course, students will learn the characteristics and requirements of integrated electronics systems such as the Garmin. They will also learn basic instrument theory and operation and will study engine and system operation monitoring. All theory oriented studies are performed under this class. Total Credits 2.00

#### AVT 113 Aircraft Electrical, Communication, & Navigation Systems (Part II) Lab

This course is the laboratory component of AVT112. The student construct and install a wire harness for a small general aviation avionics and instrument panel, construct a pitotstatic system, wring out their harness, install their harness, perform safe-to-turn-on testing, and finally, install the radios and instruments and final test the completed avionics and instrument system. All laboratory performance requirements in support of AVT112 are performed in this class. Total Credits 3.00

#### AVT 115 Basic Communications Electronics Lab

This course is the laboratory component to the AVT 107 course and will provide students with hands on experience with shop grade test equipment while performing experiments using LabVolt Computer Aided Instructional Electrical/Electronic Training System. Laboratory experiments are conducted on pre-assembled boards maximizing student productivity and allowing increased instructor interaction and support. Total Credits 3.00



#### AVT 122 Practical Electronics Technology for NCATT

##### Applications

This class helps student increase the knowledge and skills required to troubleshoot and repair practical electronics projects and prepares the student to be successful on the avionics primary certification test given by the National Center for Aerospace and Transportation Technologies. Total Credits 4.00

#### AVT 125 Digital Electronics Fundamentals

This course is designed to provide students with the concepts and terminology utilized in digital electronics. The student will be exposed to the most basic concepts of digital electronics to a wide variety of the fundamentals for circuits used in today's avionics equipment and aircraft switching circuits. Once an understanding of the numbering system is achieved the course proceeds to basic logic circuits. Total Credits 2.00

#### AVT 126 Digital Electronics Fundamentals Lab

This course is designed to provide students with the concepts and terminology utilized in digital electronics. The student will be exposed to the most basic concepts of digital electronics to a wide variety of the fundamentals for circuits used in today's avionics equipment and aircraft switching circuits. During this lab portion the student will be introduced to test equipment used to diagnose digital electronic discrepancies. Total Credits 2.00

#### AVT 135 Advanced Analog & Digital Communications

This course introduces students to the ARINC429 data bus system used to control and communicate with modern avionics devices. Students will also be able to specialize their studies in their preferred area by selecting from theoretical studies in microprocessors, fiber optics, transducers, or bench repair. Total Credits 2.00

#### AVT 136 Advanced Analog & Digital Communication Lab

This lab course is the complement to AVT 135 and gives the student practical experience with ARINC429 test equipment to troubleshoot modern avionics equipment in both a laboratory and aircraft environment. Students will also be able to specialize their studies in their preferred area by selecting from lab work in microprocessors, fiber optics, transducers, or bench repair. Total Credits 2.00

#### BAF 103 Finance

This course provides an introduction to financial markets, institutions and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds and the financial principles and concepts behind sound financial management. Topics include financial systems of the United States, business financial management and financing other sectors of the economy. Total Credits 3.00

#### BAF 105 Introduction to US Financial System

This course emphasizes the relevance of monetary instruments, intermediaries and the role of the central banks as they impact local, state, national and international economics. Topics include history and evolution of financial institutions; monetary instruments and flow; and central banking, operation and policies. Total Credits 3.00

#### BAF 121 Introduction to Bank Management

Emphasizes the relevance of banks and the economy, bank regulations and policy, bank organizational structure, bank management, the financial institutions' environment, bank deregulation, and asset/liability management. Total Credits 3.00

#### BIO 100 Biology Review

This course is designed to help the students increase their knowledge concerning basic biological concepts. It is not intended to replace BIO110 Principles of Biology. Recommended for students planning to take BIO150 Human Anatomy & Physiology or BIO160 Microbiology who have not had a recent life science course, or students wishing to prepare for BIO110 Principles of Biology. This course is graded on a pass/fail scale so students will not be receiving a grade. Students must score 70% of the available points to pass the class. Total Credits 1.00

#### BIO 110 Principles of Biology

An introduction to fundamental biological concepts that includes molecular biology, cellular structure and function, human biology, and ecology. Students will have an understanding of the nature of science, levels of organization, bioenergetics, reproduction, inheritance, and the mechanisms of change. Laboratory stresses the process of scientific investigation and observation of biological processes. Total Credits 5.00

#### BIO 120 Environmental Biology

An interdisciplinary study of the environment investigating how nature works and how things are interconnected. Based on an understanding of ecological concepts and principles, students examine lifestyle issues and critically analyze the relationship among population, natural resources, land use, agriculture, biodiversity, industrialization and pollution. Environmental problems are examined from scientific, ethical, economic and sociological perspectives to enable students to understand the relevance of biology to contemporary issues in human society. Total Credits 3.00

#### BIO 130 Biology I

A study of the fundamental concepts in cellular and molecular biology, that lead to further studies in the diversity of life. Emphasis in lab is placed on the biological functions that define life, including basic biochemistry, cell and membrane functions, bioenergetics, reproduction and genetics, and phylogeny and evolution. Total Credits 5.00

#### BIO 135 Biology II

A study of the fundamental concepts of biology as they apply to levels of organization, from the bacteria through the vertebrates, and ecosystems. Lecture emphasis is on the organization, physiology, and diversity of life as studied through the kingdoms. Laboratory work emphasizes the structural comparison of major kingdoms and phyla. Total Credits 5.00

#### BIO 150 Human Anatomy & Physiology

A detailed study of the structure and function of the human body. Laboratory work includes tissue examination, basic physiological experiments and structural identification of all organ systems. Total Credits 5.00

#### BIO 151 Anatomy & Physiology Enhancement

This course provides for an elaboration of either the anatomy or the physiology of foundation topics presented in BIO150 Human Anatomy and Physiology. Topics can include cell structure and function, muscular system, nervous system, endocrine system, immune system, cardiovascular system, respiratory system, digestive systems and/or urogenital system. This course is graded on a pass/fail scale and no letter grade will be given. Passing credit will be awarded when the student satisfactorily completes a minimum of 75% of the content assigned for this course. Note: Core content may vary by semester as dictated by student learning assessments. Additional topic lists may be distributed each semester as instructors are not restricted from adding topics for enrichment. Total Credits 1.00

#### BIO 160 Microbiology

An introduction to microorganisms and their morphology, physiology, genetics and distribution. Emphasis is placed on the relationship of microorganisms to disease and the human immune responses. Techniques involving staining, culturing, identifying and biochemistry are considered in laboratory. Total Credits 5.00

#### BMT 101 Optimize Your Website-Beginning Search Engine Optimization (SEO)

This purpose of this workshop is to provide an understanding of how search engine optimization techniques can be used to improve a website and increase its traffic. Emphasis will be on understanding how search engines work, the SEO process, tools and techniques on how you can optimize your website Total Credits 1.00

#### BMT 105 Online Advertising-Beginning Google Ad Words

This purpose of this workshop is to provide an understanding of how to plan and create a successful online advertising campaign using Google AdWords. Emphasis will be on understanding how the AdWords system works, how campaigns should be structured, and how keyword lists and ads are developed. We also introduce Google Analytics and conversion tracking and explain the billing cycle. Total Credits 1.00

#### BMT 110 Blogging For Your Business

This workshop will provide an understanding of how to plan and create a successful blogging campaign. Promoting your business by delivering marketing messages in the form of a blog can help attract and retain customers. Blogging can be part of an online marketing campaign, which is a critical skill for today's business owner and business student. Total Credits 1.00

#### BMT 115 Beginning Email Marketing

This workshop will provide an understanding of how to plan an email marketing campaign. We will examine best practices for

sending email messages; discuss deliverability, tracking, list building and can-spam compliance issues. Total Credits 1.00

#### BMT 120 Social Media Madness

This workshop will provide an understanding of what Social Media is and how it can be used in marketing your business. We will examine ways to engage social media to promote a product, brand or identity. Total Credits 1.00

#### BUS 104 Introduction to Business

Studies various types of business organizations and the relationships of business to government and management to labor. Management's perspective of production, marketing, personnel, finance and transportation is a constant consideration. Total Credits 3.00

#### BUS 106 Office Procedures

Prepares students to handle situations in an office setting. Students learn office management skills including communication, and organization skills. Total Credits 3.00

#### BUS 121 Business Communications

Business Communications is designed to cover the communication skills that are necessary in a high technology global business environment. These skills include competencies in written and oral communication; an awareness of international, legal, and ethical issues; the ability to work collaboratively on group projects; and proficiency in using microcomputers. Total Credits 3.00

#### BUS 125 Business Law

A basic introductory law course covering the legal and social environment within which business operates, including the structure, processes and procedures of the American legal system. A substantial portion of the course is devoted to contracts. Total Credits 3.00

#### BUS 130 Personal Finance

This course is designed for non-business majors as well as for business majors. The course is concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance. Total Credits 3.00

#### BUS 140 Principles of Marketing

Production and marketing of goods and services are the essence of economic life in any society. All organizations perform these two basic functions to satisfy their commitments to society, their customers and their owners. Marketing examines the problems of transferring title and moving goods from producer to consumer, buying, selling, storing, transporting, standardizing, financing, risk-bearing and supplying market information. The free enterprise and the government's contribution, retailing and international marketing are discussed at length. Total Credits 3.00

#### BUS 145 Dreamweaver

This course is designed to introduce the fundamentals of web page authoring using Macromedia Dreamweaver version 8. Emphasis is on developing an understanding of how to plan, design, create, modify and publish a web site. Total Credits 3.00

#### BUS 160 Human Relations

This course is designed to help employees and supervisors gain human relations skills needed for success at their work site. The case method will be used to analyze situations in which actual job relations are presented. Total Credits 3.00

#### BUS 200 Principles of Management

Explores the basic management functions of planning, controlling organizing and directing an organization. The basic management theories, functions and aspects of various types of business are studied. Total Credits 3.00

#### CAT 101 CATIA Part Design & Sketcher

Core course of CATIA V5. Course covers the creation of solid parts without complex contours. Students will be introduced to the part environment of CATIA V5 and learn how to work between Sketcher and Part Design workbenches to create individual parts. Total Credits 4.00

#### CAT 102 CATIA Drafting

This course covers the creation of engineering drawings. Students will be introduced to the drafting environment of CATIA V5 and learn how to create drawings from parts and products. Total Credits 4.00

#### CAT 105 CATIA Assembly Design

This course covers the use of multiple parts to create an assembly. It also covers the various analytical and navigation tools that are available within an assembly. Students will be introduced to the product environment of CATIA V5 and learn how to work with multiple parts between the Assembly Design, DMU Space Analysis and DMU Navigator workbenches. Total Credits 4.00

#### CAT 110 CATIA Wireframe & Surfaces

Extension of the part environment covers the use of wireframe and surface geometry to create complex contours. Cores concentrates on the tools available and how to integrate this geometry back into a solid part. Total Credits 4.00

#### CAT 115 CATIA Prismatic Machining

This course is the beginning manufacturing course. This course covers the machining operations involved in 3-axis milling. Students will be introduced to the process environment of CATIA V5 and learn how to work between the process, part and product environments. Total Credits 4.00

#### CAT 120 CATIA ENOVIA LCA

This course provides students with a thorough background in the Enterprise Innovation via Life Cycle Applications. Student will learn to utilize the ENOVIA system to manage a product from initial conceptual drawings, through 3D modeling, to retirement of the product. Total Credits 3.00

#### CAT 122 CATIA ENOVIA DMU

This course is intended for students who want to learn to view and analyze CAD data. Students are introduced to the product environment and the 2D viewer environment. Topics include various analytical and navigational tools and functional dimensioning and tolerancing information available within ENOVIA DMU Total Credits 2.00

#### CAT 124 CATIA Surface Machining

This course is a continuation in the manufacturing environment. This course covers the more advanced machining operations involved in full 3-axis and multi-axis machining. Students will learn how to integrate the manufacturing tools available in Prismatic Machining, Surface Machining and Advanced Machining. Total Credits 3.00

#### CCP 100 Introductory Craft Skills

This course is the Core Curriculum for Introductory Craft Skills under the National Center for Construction Education (NCCER). This course is NCCER's basic course for all construction, maintenance and pipeline occupations. This course covers basic safety obligations of workers, supervisors and managers; reviews the role of company policies and OSHA regulations; introduces trainees to hand and power tools widely used in the construction industry, and their proper uses. Students will also become familiarized with basic blueprint terms, components and symbols Total Credits 3.00

#### CCP 105 Carpentry Basics

This course covers eight topics and starts by introducing the carpentry trade, including history, career opportunities, and requirements. The course includes study and practice required for framing a simple structure. Specific topics are building materials, fasteners and adhesives, hand and power tools, reading plans & elevations, floor systems, wall and ceiling framing, roof framing and windows and exterior doors. Total Credits 4.00

#### CCP 110 Floors, Walls, & Ceiling Framing

This course covers framing basics as well as the procedures for laying-out and constructing a wood floor using common lumber as well as engineered building materials. This course also covers the procedures for laying-out and framing walls and ceilings, including roughing-in doors and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing. Total Credits 4.00

#### CCP 115 Roof Framing

This course covers the various kinds of roofs and instruction for laying out rafters for gable roof, hip roof, and valley intersections. Coverage includes both stick built and truss built roofs. Total Credits 3.00

#### CCP 120 Windows, Doors, & Stairs

This course describes the various types of windows, skylights, and exterior doors, and provides instruction for installing them. It also includes instruction for installing weather-stripping and locksets. The course introduces the trainee to the various types of stairs and the common building code requirements related to stairs. The course focuses on the techniques for measuring and calculating rise, run and stairwell openings, laying out stringers, and fabricating basic stairways. Total Credits 3.00

#### CCP 125 Commercial Drawings

This course is the curriculum for Commercial Drawings under the National Center for Construction Education (NCCER). This course covers the types and uses of drawings prepared for commercial structures. It provides information about the format and content of commercial drawings and their use in conveying specific construction requirements. It describes the standard format for specifications. Total Credits 2.00

#### CCP 130 Roofing Applications

This course is the curriculum for Roofing Applications under the National Center for Construction Education (NCCER). This course covers the common materials used in residential and light commercial roofing, along with the safety practices and application methods for these materials. It includes shingles, roll roofing, shakes, tiles, and metal and membrane roofs, as well as the selection and installation of roof vents. Total Credits 1.00

#### CCP 135 Thermal and Moisture Protection

This course is the curriculum for Thermal and Moisture Protection under the National Center for Construction Education (NCCER). This course covers the selection and installation of various types of insulating materials in walls, floors, and attics. It also covers the uses and installation practices for vapor barriers and weatherproofing materials. Total Credits 1.00

#### CCP 140 Exterior Finishing

This course is the curriculum for Exterior Finishing under the National Center for Construction Education (NCCER). This course covers the various types of exterior siding used in residential construction including wood, metal, vinyl, and cement board siding, and their installation procedures. Total Credits 2.00

#### CCP 145 Cold-Formed Steel Framing

This course is the curriculum for Cold-Formed Steel Framing under the National Center for Construction Education (NCCER). This course covers the types and grades of steel framing materials and includes instructions for selecting and installing metal framing for interior walls, exterior walls, and partitions. Total Credits 1.00

#### CCP 150 Drywall Installation and Finishing

This course is the curriculum for Drywall Installation and Finishing under the National Center for Construction Education (NCCER). This course covers the various types of gypsum drywall, their uses, and the fastening devices and methods used to install them. The materials, tools, and methods used to finish and patch gypsum drywall. It includes coverage of both automatic and manual taping and finishing methods. It also contains detailed instructions for installing drywall on walls and ceilings, using nails, drywall screws, and adhesives. It also covers fire- and sound-rated walls. Total Credits 2.00

#### CCP 155 Doors and Door Hardware

This course is the curriculum for Doors and Door Hardware under the National Center for Construction Education (NCCER). This course covers the installation of metal doors and related hardware in steel-framed, wood-framed, and masonry walls, along with their related hardware, such as locksets and door closers. It also covers the installation of wooden doors, folding doors, and pocket doors. Total Credits 1.00

#### CCP 170 Suspended Ceilings

This course is the curriculum for Suspended Ceilings under the National Center for Construction Education (NCCER). This course covers the materials, layout, and installation procedures for many types of suspended ceilings used in commercial construction, as well as ceiling tiles, drywall suspension systems, and pan-type ceilings. Total Credits 1.00

#### CCP 175 Window, Door, Floor, and Ceiling Trim

This course is the curriculum for Window, Door, Floor, and Ceiling Trim under the National Center for Construction Education

(NCCER). This course covers the different types of trim used in finish work. It focuses on the proper methods for selecting, cutting, and fastening trim to provide a professional finished appearance. Total Credits 1.00

#### CCP 180 Cabinet Installation

This course is the curriculum for Cabinet Installation under the National Center for Construction Education (NCCER). This course covers the selection and installation of base and wall cabinets and countertops. Total Credits 1.00

#### CED 101 Computer Essentials

This course is designed to develop students' computer literacy, keyboarding skills and to meet the needs of students in the associate degree programs and technical certificate programs. The student will learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, and graphical presentations in the Windows environment. Total Credits 2.00

#### CED 102 Keyboarding

This course is designed to develop utilization of the touch system of keyboarding on the standard keyboard and manipulation of the operative parts of the keyboard. Emphasis will be on accuracy with speed. Total Credits 1.00

#### CED 108 Word Processing

Emphasizes an intensive use of word processing software to create and revise business documents. Topics include: equipment and supplies maintenance and usage, work area management, word processing software, and productivity. Total Credits 3.00

#### CED 115 Computer Applications

This course introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include: computer terminology, introduction to the windows environment, introduction to networking, introduction to word processing, introduction to spreadsheets, and introduction to databases. Total Credits 3.00

#### CED 116 Advanced Word

Upon completion of this course students should understand the basic concepts of Word, perform character and paragraph formatting, manage text flow, create and modify tables, work with headers and footers, use illustrations and graphics, create and proof documents, create references and hyperlinks, and perform mail merges. Total Credits 2.00

#### CED 117 Advanced Excel

Upon completion of this course students should understand the basic concepts of Excel, be able to format cells, ranges, and worksheets, work with data, use basic and advanced formulas and functions, create and modify charts, insert pictures and shapes to a worksheet. Total Credits 2.00

#### CED 118 Advanced PowerPoint

Upon completion of this course students should understand the basic essentials of PowerPoint, insert and modify text on slides, add tables, graphics, and video to presentations, use transitions and animations, secure and share a presentation. Students should be able to create and present a PowerPoint presentation. Total Credits 2.00

#### CED 120 Advanced Computer Applications

This course enhances computer literacy and meets the needs of students in associate degree and/or certificate programs. The students will learn from hands-on experiences, advanced skills in word processing, spreadsheet applications, and graphical presentations in the Windows environment. Total Credits 3.00

#### CED 125 Introduction to Desktop Publishing

Provides a study of word processing and desktop publishing. Topics include: desktop publishing concepts, advanced word processing concepts, development of macros, presentation graphics concepts, and troubleshooting applications. Total Credits 3.00

#### CFT 101 Introduction to Composites

This course provides students with the fundamentals of composite theory in an interactive on line environment. Students then apply the concepts to industry based projects in a 3D interactive online environment and a world class composite laboratory. Topics include the materials, equipment, processes, components and design of polymer composite structures. Total Credits 2.00



#### CFT 106 Composite Finish Trim

This course provides students with an understanding of the processes and procedures use to finish trim composites parts. Topics include safety, documentation, tools, procedures and inspection. Total Credits 2.00

#### CFT 107 Composite Assembly

Composite Assembly teaches the fundamentals of joining composite structures. Adhesive bonding as well as mechanical fasteners are covered. Safe procedures are emphasized. Hole preparation for mechanical fasteners and surface preparation for adhesive bondings are essential elements of this course. The course consists of theory and practical application through hands on projects. Total Credits 2.00

#### CFT 130 Composite Fabrication Methods /Applications

Fundamentals of composite structure fabrication methods and applications will be covered including, hand lay-up, bonding, vacuum bagging and resin transfer molding. Emphasis will also be placed on composites safety and inspection/testing of composite components. Total Credits 2.00

#### CFT 135 Overview of Composite Inspection

This course is designed to provide students with an understanding of the inspection process during repair procedures. Students will learn the role of repair technicians in the inspection process. Emphasis will be placed on the importance of documentation in the inspection of repair. This course is an online course and utilizes interactive online content. Total Credits 1.00

#### CFT 140 Composite Inspection

This course is designed to provide students with an understanding of the inspection process during repair procedures. Students will learn the role of repair technicians in the inspection process while obtaining hands on experience in basic NDI testing techniques. Emphasis will be placed on the importance of documentation in the inspection of repair. This course utilizes online, classroom and laboratory learning environments. Total Credits 2.00

#### CFT 141 Disassemble & Damage Removal Techniques

This course provides student with the knowledge required to safely and effectively prepare a part for repair. In the lab setting students will learn to effectively remove finish, disassemble and remove damage composite material. Special attention will be paid to developing the student's tactile skills in all these areas. Theory in this course is taught using an interactive on line environment. Total Credits 3.00

#### CFT 142 Composite Repair

This course is designed to provide students with the knowledge and techniques used for structural repair of aircraft made with composite materials. Students will complete multiple industry based projects designed to challenge their skills with both wet layup and pre preg materials. Total Credits 4.00

#### CFT 143 Complex Composite Repairs

This course is designed to provide the student with hands on experience working with non- structural composite repairs. Instruction will include learning to solve problems presented in non- production atmospheres in relation to composite repairs. Students will also review case studies and problem solving models. Total Credits 3.00

#### CFT 144 Electrical Bonding Repair

This course will provide students with the knowledge and skills used in electrical bonding composite repair. Students will learn both theory and application using secondary bonding techniques. Total Credits 1.00

#### CHM 100 Chemistry Review

Introduces basic concepts covered in CHM 125 Chemistry I. It is recommended for students who want to enroll in Chemistry I or a higher-level chemistry course the following semester. It is not recommended for those taking CHM 110 General Chemistry. Total Credits 1.00

#### CHM 110 General Chemistry

An introduction to chemistry that includes the study of matter, atoms, molecules, chemical arithmetic, chemical reactions, gas laws, acids and bases, organic chemistry and laboratory experimentation. Total Credits 5.00

#### CHM 125 Chemistry I

An introduction to inorganic chemistry with emphasis on atomic structure, molecular bonding and structure, the periodic table, kinetic theory, changes of state, solutions and concentrations, chemical reactions and oxidation-reduction and fundamental organic chemistry. Includes laboratory experimentation. Total Credits 5.00

#### CHM 135 Chemistry II

A continuation of CHM 125 Chemistry I. A presentation of the properties of solutions, chemical kinetics, equilibrium, acid-base theory, thermodynamics, coordination chemistry, organic and biochemistry and electrochemistry. Includes laboratory experimentation. Total Credits 5.00

#### CNU 010 Certified Nurse Aide Update

This course is for students who originally certified as a Nursing Assistant in the State of Kansas and have not worked in a Health Care Setting for two or more years. This class will prepare students to return to the Health Care Setting under the direct supervision of a licensed nurse as a Certified Nurse Assistant. Total Credits 1.00

#### CPR 001 CPR for Healthcare Providers

Designed for practitioners whose primary work environment is in a clinical setting or those providing direct patient care. This is the most comprehensive credential, and it is often a prerequisite for advanced training courses. Suggested participants include: physicians, dentists, nurses, paramedics, EMTs, respiratory therapists, pharmacists, medical or nursing assistants and other allied health professionals. Total Credits 1.00

#### CRJ 101 Introduction to Criminal Justice

Provides an introduction to the historical development and the internal and external issues of the various components of the criminal justice system including police, corrections and the courts. The student will illustrate how these interrelated components result in the administration of justice today. Total Credits 3.00

#### CRJ 105 Criminal Investigation

Explores issues including the effective interview and interrogation techniques, crime scene management and lab processes, crime scene documentation methods, case preparation and court presentation. Total Credits 3.00

#### CRJ 110 Criminal Law

Examines the history, scope and nature of law. It focuses on the parties to a crime; classification of offenses; criminal acts and intent; the capacity to commit crime; and criminal defenses. It will cover the elements of misdemeanor and felony crimes. Total Credits 3.00

#### CRJ 115 Agency Administration

Conducts a practical analysis of modern administration theory and supervisory, management principles and their application to the unique operating problems of criminal justice organizations. Total Credits 3.00

#### CRJ 120 Juvenile Delinquency and Justice

Examines the historical precedents and philosophical reasons for treating juveniles differently from adults. Reviews empirical evidence about child development that can illuminate the reasons for their special status within the system. It will study the major theories that have been proposed as explanations of delinquent behavior. The course will also provide a detailed overview of the juvenile justice system, from its beginnings to the current state of the institution. Total Credits 3.00

#### CRJ 125 Law Enforcement Operations and Procedures

Examines the role of police in society and the application of key concepts to policing scenarios. Students identify, discuss and assess critical police practices and processes to include deployment, arrest procedures, search strategies and other operational considerations. Total Credits 3.00

#### CRJ 130 Criminal Procedures

Introduces basic court system procedures and the jurisdiction of the courts. It also focuses on the constitutional and other legal requirements that affect law enforcement practices and procedures. Specific topics include confessions and interrogations, identification procedures, arrest, search and seizure, and admissibility of evidence. Total Credits 3.00



#### CRJ 135 Criminal Justice Interview and Report Writing

Focuses on the unique types of writing required in a criminal justice career. Students are required to gather pertinent information and then record that information by writing a variety of report narratives representative of those prepared by individuals working in a profession within the criminal justice system. Total Credits 3.00

#### CRJ 140 Professional Responsibility in Criminal Justice

Explores the major components involved in the study of ethics, particularly as it applies to the field of criminal justice. Focus is placed on the code of conduct and ethics of the criminal justice profession and the standards held to in their professional role. The aim of the course is to produce professionals who are not only critical thinkers, but who have the skills necessary to pursue sound ethics in their day-to-day decisions and activities. Total Credits 3.00

#### CRJ 145 Corrections

This course provides an introduction into the history of corrections, philosophical background, processes, institutions, parole, and probation and offender reentry. Correctional theories and the relationship with other facets of the criminal justice system are examined. Total Credits 3.00

#### CRJ 150 Community Policing

An examination of the relationship between the police and the community they serve. Defines and explores modern philosophies and techniques designed to build partnerships between the police and citizens. Total Credits 3.00

#### CRJ 155 Policing Diverse Cultures

This course examines the challenges and opportunities law enforcement faces providing public safety services in culturally diverse communities. The influences of culture, ethnicity, race, sexual orientation, and socioeconomic class will also be discussed. Total Credits 3.00

#### CRJ 160 Internship in Criminal Justice

The purpose of the internship program is to allow students an opportunity to gain knowledge and experience in law enforcement and public safety services and further explore careers in the field with a focus on urban policing. Total Credits 3.00

#### CRJ 161 Internship in Criminal Justice I

The purpose of the internship program is to allow student an opportunity to gain knowledge and experience in private security and public safety services and further explore careers in the field with a focus on private policing. Total Credits 1.00

#### CRJ 162 Internship in Criminal Justice II

The purpose of the internship program is to allow students an opportunity to gain knowledge and experience in security/law enforcement and public safety services and further explore careers in the field with a focus on private policing/urban policing. Total Credits 1.00

#### CRJ 163 Internship in Criminal Justice III

The purpose of the internship program is to allow students an opportunity gain knowledge and experience in law enforcement and public safety services and further explore careers in the field with a focus on urban policing. Total Credits 1.00

#### CRJ 165 Directed Independent Study

This course is an extension of Police Sciences curriculum. The course is designed to provide a structured learning experience to broaden the student's comprehension of the outcomes and competencies associated with Police Sciences. Topics of specific interest to the student, augmenting the Police Sciences curriculum are developed with competencies based on student needs/or requirements to apply learned skills to out of class activities and work-related environments or projects. Total Credits 3.00

#### CRJ 170 Seminars in Criminal Justice

This course provides focused instruction in the areas of law enforcement principals, criminal investigations, police response, policy formation and administrative methods for effective policing in contemporary society. Students will participate in real world scenarios and work through these situations using the Judgmental Use of Force Simulator. Total Credits 3.00

#### CRJ 180 KLETC or Equivalent Law Enforcement Academy Training

Total Credits 12.00

#### CWG 103 Print Reading II/Welding

Blue Print II gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies. Students will fabricate a total of 4-5 projects from shop drawings. Welding symbols and abbreviations for well-meant fabrications: fillet welds, groove welds, back or backing and melt thru welds, plug and slot welds, surfacing welds, edge welds, spot welds, projection welds, seam welds, stud welds. Total Credits 1.00

#### CWG 110 Welding Applications

The student will spend a total of 26 hours in each of the following disciplines: SMAW, GMAW, GTAW, & Oxy Fuel welding. Students will learn basic elements of each in the course. Total Credits 4.00

#### CWG 115 SMAW

Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds. Total Credits 3.00

#### CWG 116 SMAW II

This course is designed to give students learning opportunities in the form of assessments and activities in the classroom, lab and/or shop. Students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the (SMAW) workstation; associate (SMAW) electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build t-joint and lap weld beads with selected electrodes in the flat position; build t-joint and lap weld beads with selected electrodes in the horizontal position; perform basic (SMAW) welds on selected metal thicknesses; and perform visual inspection of said welds. Student will also start out of position welds in the vertical (3) and overhead (4) positions. Including but not limited to fillet and groove welds. Total Credits 4.00

#### CWG 120 GMAW

Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the safe and correct set up of the GMAW workstation.; correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; produce basic GMAW welds on selected weld joints; and conduct visual inspection of GMAW welds. Total Credits 3.00

#### CWG 121 GMAW II

Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the safe and correct set up of the GMAW work station. Correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses. Build t-joint and lap weld beads with selected electrodes in the flat position; build t-joint and lap weld beads with selected electrodes in the horizontal position; perform basic GMAW welds Student will perform welds in the vertical (3) and overhead (4) positions, this will include but not limit to fillet weld and groove welds. Total Credits 4.00

#### CWG 125 GTAW

Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW); demonstrate the safe and correct set up of the GTAW workstation; relate GTAW electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the flat position; build pads of weld beads with selected electrodes and filler material in the horizontal position; perform basic GTAW welds on selected weld joints; and perform visual inspection of GTAW welds. Total Credits 3.00

#### CWG 126 GTAW II

Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain the gas metal arc welding process (GTAW); demonstrate the safe and correct set up of the (GTAW) work station; correlate (GTAW) electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and

thicknesses. Students will build t-joint and lap weld beads with selected electrodes in the flat position; build t-joint and lap weld beads with selected electrodes in the horizontal position; perform basic (GTAW) welds. Students will perform welds in the vertical (3) and overhead (4) positions; this will include but not be limited to fillet weld and groove welds. Students will also be introduced to aluminum and stainless steel. Total Credits 4.00

#### CWG 130 Robotic Welding

This course is designed to give students learning Robotic Welding opportunities in the form of assessments and activities in the classroom, lab and/or shop. Topics in the course will include robot axes, programing, backups and protection, safety, and maintenance of the welding and robot equipment. Total Credits 1.00

#### CWG 141 Oxy Acetylene Welding & Cutting

The Oxy-Acetylene Welding and Cutting Course is designed to introduce students to the competencies required to safely and successfully demonstrate oxy-acetylene techniques in the classroom, lab and shop setting. Total Credits 2.00

#### CWG 145 Fabrication & Design

This course is designed to provide students with the opportunity to apply fabrication and design principles in various WATC campus related and student projects. Total Credits 2.00

#### CWG 149 Materials & Testing

Provides knowledge and skills in the areas of metallurgy and weld testing. Teaches the different uses and testing procedures for steel, stainless steel, aluminum and various alloys. Emphasizes welds approved for testing by the American Welding Society. Total Credits 2.00

#### CWG 242 SMAW D1.1 Qualification

Assists students in preparing to take the shielded metal arc welding (SMAW) qualification test. Students follow all safety procedures related to the various tools and equipment involved in this course. They understand the qualification and code system for structural qualification; identify, measure, cut and prepare the material required for this qualification; and learn the skills for structural welding. Students have time in class to practice these skills in preparation for the structural certification test(s). Completion of this course does not ensure qualification. Total Credits 4.00

#### CWG 243 GMAW D1.1 Qualification

Assists students in preparing to take the gas metal arc welding (GMAW) qualification test. Students follow all safety procedures related to the various tools and equipment involved in this course; understand the qualification and code system for structural qualification; identify, measure, cut and prepare materials required for this qualification; and learn the skills for structural welding. Students have time in class to practice these skills in preparation for the structural qualification test(s). Completion of this course does not ensure qualification. Total Credits 4.00

#### CWG 250 API 1104 Qualification

Assists students in preparing to take the pipe certification test. Students follow all safety procedures related to the various tools and equipment involved in this class. They understand the certification and code system for pipe certification. They also identify, measure, cut and prepare the pipe required for this certification. They learn the skills for structural welding cross-country gas and oil lines and have time to practice these skills in preparation for the pipe certification test. Total Credits 4.00

#### DAS 113 Dental Materials I

Covers identification of materials used in general dentistry; physical and chemical properties, functions and classifications. Includes principles of safety and aseptic technique involved in working with materials and equipment. Laboratory practice with impression materials, gypsum products, dental cements, waxes, resins and restorative materials. Total Credits 4.00

#### DAS 114 Dental Radiology I

Fundamental concepts to acquire and utilize diagnostic intraoral radiographic equipment, radiographic characteristics and anatomy, mounting of radiographs, radiographic processing, safety relating and legal issues relating to dental radiographs. Course includes certification in the use of the NOMAD PRO, use of digital and traditional radiographic technology, and introduction to extraoral techniques. Total Credits 3.00

#### DAS 119 Dental Anatomy

Demonstrate a fundamental knowledge of tooth and oral anatomy, head and neck and the terminology necessary for more advanced

skills and for a successful career in dentistry. Total Credits 2.00

#### DAS 120 Dental Science

Students are provided with knowledge and basic dental pharmacology, management of dental and medical emergencies found in a dental setting. Students are expected to recognize signs and symptoms of specific emergencies to assist in the delivery of the suggested treatment. In addition, the student will discuss nitrous oxide and its administration. The student must complete a written examination on medical emergencies and administering/monitoring of nitrous oxide-oxygen analgesia with a proficiency of 75% or better and demonstrate administration and monitoring of nitrous oxide-oxygen analgesia with a proficiency of 85% or better in order to obtain the certification in administering/monitoring of nitrous-oxygen analgesia. Total Credits 2.00

#### DAS 122 Chairside Assisting I

Introduction to the dental health profession and dental assisting. Provides students with knowledge of performing extraoral/intra-oral examination, prevention dentistry, dental assisting with direct and indirect restorations (basic and restorative instruments, moisture control, matrix system) and pediatric dentistry. Total Credits 4.00

#### DAS 140 Chairside Assisting II

Continuation of DAS122 Chairside Assisting I. This course will provide a foundation for assisting in the dental specialties of oral and maxillofacial surgery, endodontics, and removable prosthodontics, periodontics, orthodontics and dentofacial orthopedics, and pediatric dentistry. Procedures, instruments and materials involved in these areas will be studied. Total Credits 2.00

#### DAS 146 Dental Radiology II

Continuation of Radiology I with more intensive experience in exposing, processing and mounting intraoral films using the DXTTR manikin and patients. Students will be closely supervised and an evaluation will be made of each completed survey. Radiographic safety and infection control procedures are emphasized. Total Credits 1.00

#### DAS 147 Dental Practice Management

This course will provide instruction in additional business office procedures with an introduction to computer and dental software, business ethics and jurisprudence, business oral and written communications, inventory systems and supply ordering, maintenance and retention of business records, management of patient information, financial and recall systems. Total Credits 3.00

#### DAS 148 Dental Materials II

This course is a continuation of DAS113 Dental Materials I and includes identification of materials used in general dentistry and dental laboratory procedures. Proper manipulation of materials, their uses and correct storage are practiced. Study various laboratory procedures including manipulation of waxes, polishing and cleansing of a removable prosthesis, manipulation and use of acrylic and thermoplastics. Total Credits 1.00

#### DAS 149 Infection Control for Dental Practice

Introductory principles of microbiology: classification and characteristics of microbes with primary consideration to pathogenic microorganisms, causes of disease, transmission of infectious diseases, immune response, universal precautions, handling of hazardous materials and infection control techniques according to OSHA and ADA guidelines. Total Credits 2.00

#### DAS 150 Clinical Experience

This course gives students the opportunity to apply and practice the principles and procedures studied in the formal academic program. In private practice dental offices (both general practice and specialty offices), government clinics and public health facilities, students demonstrate the principles of chairside assisting, dental laboratory procedures and dental office procedures. Students will be assigned to two clinical rotations, one of which will be a general practice office. Total Credits 7.00

#### DAS 215 Supragingival Scaling

This is a course approved by the Kansas Dental Board, designed for experienced dental assistants to expand their skills in preventive dentistry with didactic, laboratory and clinical instruction in supragingival scaling and polishing. Includes review of dental anatomy and terminology, radiography and infection control, as well as didactic instruction in nutrition, periodontal disease, dental caries, oral hygiene instruction, topical fluoride, principles of instrumentation, communication skills and risk management. Total Credits 5.00

#### DIS 150 Directed Individual Studies

Provides the instructor and student an opportunity to develop special learning environments. Instruction is delivered through

occupational work experience, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. Topics include: application of occupational technical skills, adaptability to the work environment, and problem solving. Each course is documented with a written agreement between the instructor and the student detailing expected requirements. The course is offered with variable credit ranging from 1 to 4 credit hours. Total Credits 4.00

#### DIS 151 Directed Individual Studies

Provides the instructor and student an opportunity to develop special learning environments. Instruction is delivered through occupational work experience, practicum's, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. Topics include: application of occupational technical skills, adaptability to the work environment, and problem solving. Each course is documented with a written agreement between the instructor and the student detailing expected requirements. The course is offered with variable credit ranging from 1 to 12 credit hours. Total Credits 5.00

#### ECO 105 Principles of Macroeconomics

This course explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed. Total Credits 3.00

#### ECO 110 Principles of Microeconomics

Attention will be given to the methods of producing the goods and services that our economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms and business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform. Total Credits 3.00

#### EDU 120 Introduction to Teaching

This is a preparation course for those who are considering education as a career field. Course content introduces students to the various components of formalized schooling and education of today. It gives perspective teachers an overview of the skills and knowledge needed to be a successful professional. This course must be taken in conjunction with EDU121 Introduction to Teaching. Total Credits 3.00

#### EDU 121 Introduction to Teaching – Field Experience

This is an extension of EDU120 Introduction to Teaching and provides an opportunity for hands-on experiences in a PreK-12 classroom. Students are required to complete 25 hours in the field during the semester and reflect upon topics and issues presented in the EDU120 Introduction to Teaching course. Total Credits 1.00

#### EMP 105 Career Strategies

Professional communications and the importance of the professional credential and professional memberships are explored. Interviewing skills are expanded through resume writing. Total Credits 1.00

#### ENG 010 College Reading Skills

This course is designed to equip students for success in the writing required during academic endeavors. Review of grammar is individualized and self-paced, using a computerized software program. Writing assignments will include a number of paragraphs and major essay. This course does not count toward the A.A., A.S., A.A.S., or A.G. S. degree. Total Credits 3.00

#### ENG 020 Basic Writing Skills

Enables students to construct complete simple, compound and complex sentences by applying grammar concepts learned. Enables students to write a focused, organized, supported paragraph without fragment, run-on or comma splice errors. This course does not count toward the Certificate of Completion (COC), Technical Certificate (TC), or Associate of Applied Science degree (AAS). Total Credits 3.00

#### ENG 030 English

Designed to equip students for success in the writing required during academic endeavors. Review of grammar is individualized and self-paced, using a computerized software program. Writing assignments will include a number of paragraphs and major essay. To demonstrate readiness for and be allowed to enroll in ENG 101 Composition I, students must pass this course with a grade of C or above and pass the final exam. This course does not count toward AS, AA, AGS or AAS degrees. Total Credits 3.00

#### ENG 035 PACER English

This course is designed to equip students for success in the writing, reading, and effective student skills required during academic endeavors at the college level. Review of grammar and reading skills is individualized and self-paced, using a computerized

software program in addition to instructor-led lessons. Writing assignments will include a number of paragraphs and reading will include practice with college-level texts. Total Credits 5.00

#### ENG 100 Composition I Lab

This lab is designed for students to work in an adaptive setting based on their skills and needs in reading and writing skills. Students will take this lab in conjunction with English 101 Composition I. Total Credits 1.00

#### ENG 101 Composition I

This course is designed to improve the reading and writing skills of students. The emphasis is on fundamental principles of written English in structurally correct sentences, paragraphs and expository themes. Critical analysis of essays will be used to aid in developing the student's thinking, support of thesis and style. Students are introduced to the basic components of research by writing a documented essay in Modern Language Association (MLA) style. Total Credits 3.00

#### ENG 110 Introduction to Literature

This course is an introduction to the short forms of literature, designed to develop understanding and appreciation of good literature. Study includes short stories, dramas and poems. Total Credits 3.00

#### ENG 120 Composition II

Through a study of poetry, short story, drama and essays as literary forms, this course furthers students' writing skills. This course also improves research techniques through writing an in-depth research essay in Modern Language Association (MLA) style. It emphasizes accuracy and fluency in expressing sound ideas in class discussions, assignments and essays. Total Credits 3.00

#### ENT 110 Introduction to Entrepreneurship

The purpose of this course is to familiarize students with the world of small business. Students will be introduced to the concepts needed to seek out business opportunities as well as the tools needed to evaluate successful ventures. Considerable attention will be given to the concepts of planning, financing and marketing new businesses. Total Credits 3.00

#### ENT 115 Entrepreneurship II

The marketplace has changed dramatically over the last 20 years. To compete and grow, small businesses must do more than just give lip service to putting the customer at the center of the business. Students learn the different paths to business ownership, how to effectively market new products, management strategies for the 21st century and how to plan financially for a business. Total Credits 3.00

#### FSI 101 King Air Maintenance Practical

This course is designed to provide Maintenance Technicians hands on training with the King Air 90 Series aircraft as defined by the applicable Practical Task Assessment Log (PTAL). Total Credits 3.00

#### FOL 101 Spanish I

This course is designed to help the student increase their knowledge of Spanish vocabulary, grammar, elementary syntax and composition, basic reading, and pronunciation with practice in everyday conversation. Total Credits 5.00

#### FOL 110 Spanish II

This course is designed to help the student increase their knowledge of Spanish vocabulary, grammar, elementary and intermediate syntax and composition, basic reading, and pronunciation with practice in everyday conversation. Total Credits 5.00

#### GRA 101 Certified Nurse Aide

Prepares students to be caregivers in nursing homes while working under the supervision of licensed nurses. Includes classroom instruction, laboratory and clinical experience. Program meets Kansas State Department of Health and Environment guidelines. Graduates may take the state examination to become a certified nurse aide. Total Credits 5.00

#### GRA 108 Rehabilitative Aide

Designed to train aides to fulfill requirements for efficient rehabilitative care of residents in nursing homes. Provides the opportunity to learn the rehabilitative philosophy, work with departmental organizations, and understand the role of the physical therapist and the proper techniques of body mechanics, transfers, and ambulation. Total Credits 2.00

#### GRA 116 Activity Director/Social Service Designee

This course is an introduction to the long-term care setting the various methods of provision of recreation and social services in this setting. Included is information to give understanding of the regulatory process and the Quality assurance system in this



setting. An Overview of social work practice, introduction to recreation service provisions, and the federal and state regulations are included. At course completion, the learner will be qualified to hold a position as an Activity Director or Social Services director in the long term care setting. Total Credits 5.00

#### GRA 119 Medication Aide

Focuses on the knowledge and skills needed for safe medication administration in long-term care facilities. Graduates are eligible to take the Kansas certification examination to become certified medication aides. Total Credits 5.00

#### HHA 100 Home Health Aide

Prepares the certified nurse aide (CNA) to care for clients in community and home settings. Graduates may take the Kansas certification examination to become a home health aide (HHA). Total Credits 2.00

#### HIS 110 United States History to 1877

This course traces development of the United States, 1492 to 1876, including English colonization, the American Revolution, formation of the Union, colonization of the West, development of sectionalism, the Civil War, and restoration of home rule in the South. Important political, cultural, economic, and religious/philosophical accomplishments of this period will be examined. Total Credits 3.00

#### HIS 120 United States History since 1865

This course is designed to provide the student with an introduction to United States history from the end of Reconstruction to the present. This course will survey the important political, cultural, economic, and religious/philosophical accomplishments during this period. Total Credits 3.00

#### HIS 130 World History I

This course provides an introduction to the birth and development of World History to the mid-16th century. Students will survey the important political, cultural, economic, and religious/ philosophical accomplishments of this period. Total Credits 3.00

#### IND 100 Industrial Safety Procedures/OSHA 10

This course provides an in-depth study of the human and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation. Total Credits 1.00

#### IND 102 Manufacturing Overview

This course is designed to provide technicians with a basic understanding of the business principles which drive manufacturing. Topics include basic terminology, planning and scheduling and quality assurance. Total Credits 1.00

#### IND 104 Drafting for Industrial Maintenance

This course is designed to provide a basic understanding of machine blueprints and the ability to freehand sketch machine parts as needed on the plant floor. Total Credits 1.00

#### IND 105 Industrial Automation Test Equipment

This course is designed to provide students with the necessary skills to operate the test equipment used in the Industrial Automation program. In a hands on environment students will learn the function and operating processes of each piece of equipment. Topics will include digital multi meters, oscilloscopes, and function generators. Total Credits 1.00

#### IND 106 Direct & Alternating Current

This course introduces direct current (DC) concepts and applications and the theory and application of varying sense wave voltages and current. Topics include: electrical principles and laws; batteries; DC test equipment; series, parallel and simple combination circuits; magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers, and laboratory procedures and safety practices. Total Credits 4.00

#### IND 108 Industrial Wiring

This course teaches the fundamental concepts of industrial wiring with an emphasis on installation procedures. Topics include: grounding, raceways, three-phase systems, transformers (three-phase and single-phase), wire sizing, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors. Total Credits 2.00

#### IND 109 Basic Industrial Programmable Logic Controls

This course introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installations, and start-up procedures. Topics include: PLC hardware and software, PLC functions and terminology, PLC installation and set up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures. Total Credits 3.00

#### IND 110 DC & AC Motors

This course introduces the fundamental theories and applications of single-phase and three-phase motors. Topics include: motor theory and operating principles, motor terminology, motor identification, NEMA standards, AC motors, DC motors, scheduled preventive maintenance, and troubleshooting and failure analysis. Total Credits 1.00

#### IND 112 Fundamentals of Motor Control

This course introduces the fundamental concepts, principles, and devices involved in industrial motor control. Emphasis is placed on developing a theoretical foundation of industrial motor control devices. Topics include: principles of motor control, control devices, symbols and schematic diagrams. Total Credits 2.00

#### IND 113 Solid State & Digital Devices

This course introduces the physical characteristics and applications of solid state devices and digital circuits. Topics include: introduction to semiconductor fundamentals, diode applications, basic transistor fundamentals, basic amplifiers, and semiconductor switching devices, digital devices, arithmetic circuits and conversion from analog to digital and digital to analog. Total Credits 3.00

#### IND 114 Magnetic Starters & Braking

This course provides instruction in wiring motor control circuits. Emphasis is placed on designing and installing magnetic starters in across-the-line, reversing, jogging circuits, and motor braking. Topics include: control transformers, full voltage starters, reversing circuits, jogging circuits, and braking. Total Credits 2.00

#### IND 116 Advanced Motor Controls

This course provides instruction in two-wire motor control circuits using relays, contractors, and motor starts with application sending devices. Topics include: wiring limit switches, wiring pressure switches, wiring float switches, wiring temperature switches, wiring proximity switches, wiring photo switches, sequencing circuits, reduced voltage starting, motor control centers, and troubleshooting. Total Credits 3.00

#### IND 117 Variable Speed Motor Control

This course provides instruction in the fundamentals of variable speed drives, industrial motors, and other applications of variable speed drives. Topics include: fundamentals of variable speed control, AC frequency drives, DC variable speed drives, installation procedures, and ranges. Total Credits 2.00

#### IND 119 Industrial Precision Alignment

In this course students will learn the precision alignment techniques and skills required bring machinery back to OEM specifications while following all industry standards including documentation and scheduling. Course includes working knowledge of axis of movement, M&G codes, tolerance, machine geometry, and manual and laser precision alignment equipment. Total Credits 3.00

#### IND 121 Mechanical Systems Reliability

This course provides understanding of mechanical energy transmission concepts along with lab experience to operate, install, analyze performance, and design mechanical drive systems using right angle gears, bearings and couplings. Students learn how to setup and operate laser shaft alignment and apply vibration analysis to various power transmission systems. Total Credits 3.00

#### IND 123 Industrial Fluid Power

This course provides instruction in fundamental concepts and theories for safely operating hydraulic components and pneumatic systems and industrial pumps and piping systems. Topics include: hydraulic theory, suction side of pumps, actuators, valves, pumps/motors, accumulators, symbols and circuitry, fluids, filters, pneumatic theory, compressors, pneumatic valves, air motors and cylinders, pump identification; pump operation; pump installation, maintenance, and troubleshooting; piping systems; and installation of piping systems.

Total Credits 4.00



#### IND 125 Industrial Computer Applications

This course provides a foundation in industrial computers and computer systems with a focus in linking computers to the plant floor process. Topics include: hardware, software, boot sequence, configuration, troubleshooting, and communication platforms. Students will be prepared to take the A+ certification test. Total Credits 1.00

#### IND 126 Robotic Coating and Paint Technology

This course is designed to introduce students to learning opportunities in Robotic Coating and Paint Technology in the form of assessments and activities in the classroom, lab, and/or shop. Topics in this course will include robot axes, programing, basic robotic coating and paint technology principles, safety, and maintenance of the coating, paint and robotic equipment. Total Credits 3.00

#### IND 127 Robotic Material Handling

This course is designed to introduce students to learning opportunities in Robotic Material Handling in the form of assessments and activities in the classroom, lab, and/or shop. Topics in this course will include robot axes, programing, basic robotic material handling principles, safety, and maintenance of the material handling and robotic equipment. Total Credits 3.00

#### IND 128 Robotic Sheetmetal Drilling and Fastening

This course is designed to introduce students to learning opportunities in Robotic Sheetmetal Drilling and Fastening in the form of assessments and activities in the classroom, lab, and/or shop. Topics in this course will include robot axes, programing, basic robotic Sheetmetal Drilling and Fastening principles, safety, and maintenance of the sheetmetal drilling and fastening and robotic equipment. Total Credits 3.00

#### IND 129 Robotic Machining

This course is designed to introduce students to learning opportunities in Robotic Machining in the form of assessments and activities in the classroom, lab, and/or shop. Topics in this course will include robot axes, programing, basic robotic machining principles, safety, and maintenance of the machining and robotic equipment. Total Credits 3.00

#### IND 130 Mechanical Systems

This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment, teaches basic industrial application of mechanical principles with emphasis on power transmission and specific mechanical components. Students will also design basic mechanical transmission systems using chains, v-belts and gears Total Credits 3.00

#### IND 131 Industrial Programmable Logic Controls (PLC)

This course examines types, installation and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course. Total Credits 3.00

#### IND 132 Industrial Process Control

This course provides understanding of different types of process control systems like temperature, flow and level control. The course includes process control principles, thermocouples, RTD's, temperature measurement devices, ON/Off temperature controlled, programmable process heat controllers, transmitters, process loop test and operate system found in industrial application. Total Credits 3.00

#### IND 135 Industrial Automation Capstone

In this course students will have the opportunity to link classroom/lab theory with a capstone learning opportunity. Through hands on application, reflection and evaluations students will demonstrate integrated knowledge and growth in the field of industrial automation. Students will produce a critical reflection on their capstone experience demonstrating how they have addressed specific learning goals. Total Credits 4.00

#### IND 136 Industrial Automation Internship

In this course students will have the opportunity to link classroom/lab theory with an experimental learning opportunity. Through direct observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and customers, how these relate to their program of study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals. Total

Credits 4.00

#### INF 105 A+ Certification - Essentials

This course will prepare student to take the CompTIA A+ Practical Application exam which measures the necessary competencies for an entry-level IT (Information Technology) professional. Successful students will have the skills required to install, configure, upgrade, and maintain PC (Personal Computer) workstations, the Windows OS (Operating System) and SOHO (Small Office Home Office) networks. Students will utilize troubleshooting techniques and tools to effectively and efficiently resolve PC, OS, and network connectivity issues and implement security practices. Job titles in some organizations that would describe the role of this individual may be: Enterprise technician, IT administrator, field service technician, PC or Support technician, etc. Total Credits 3.00

#### INF 110 A+ Certification - Application

This course will prepare student to pass the CompTIA A+ Essentials exam. The CompTIA A+ Essentials examination measures necessary competencies for an entry-level IT professional. Successful students will have the knowledge required to understand the fundamentals of computer technology, networking, and security, and will have the skills required to identify hardware, peripheral, networking, and security components. Upon completion of the course students will understand the basic functionality of the operating system and basic troubleshooting methodology, practice proper safety procedures, and will effectively interact with customers and peers. Total Credits 3.00

#### INF 115 Network+ Part I

This course along with INF116 Networking+ Part II prepares the student for CompTIA's Network+ certification exam. The class prepares students to work with network operating systems and network design issues. Total Credits 3.00

#### INF 116 Network+ Part II

This course is a continuation of INF115 Networking+ Part I and prepares the student for CompTIA's Network+ certification exam. The class prepares students to work with network operating systems and network design issues. Also covered at length are backup and disaster recovery issues and viruses. Total Credits 3.00

#### INF 120 Security+

This course prepares student for the CompTIA Security+ Certification exam. CompTIA Security+ exam is an internationally recognized validation of foundation-level security skills and knowledge, and is used by organizations and security professionals around the globe. Total Credits 3.00

#### INT 100 Accessories

This is an introduction to decorative accessories that focuses on the components of display for effective visual presentation. This course utilized the principles and techniques that are common to display work in interiors and various businesses. The main emphasis will be on design and color principals, hangers, and materials used for arrangement and display, and safety issues. Total Credits 1.00

#### INT 101 Interior Design Fundamentals

This course emphasizes the fundamentals of design by exploring design elements and principles, traffic-flow patterns, color rendering, space planning, and problem solving skills for interior design. Inclusive in this course are research techniques, creating illustration boards, and honing presentation skills. Total Credits 2.00

#### INT 105 Blueprint Reading for Interior Design

This is an introduction to blueprints for interior construction and service systems. Students will learn basic mechanical drawings, architectural drawings, and symbol and abbreviation identification used in blueprints. By using an architectural scale student will learn to draft floor plans. Construction documents, time management, and communication with architects and contractors are included in this course. Total Credits 2.00

#### INT 110 Color Theory

This course introduces the use of color for interior design. Emphasis is on color theory, psychology of color and how it affects the brain and moods, and application of color in interior environments and lighting conditions. Included is the vocabulary of color, color temperatures, the principles of the color wheel and how to use it. With the use of paint values, tones, and shades are mastered. Total Credits 2.00

#### INT 126 Textiles

By the end of the semester, each student will know various soft materials and treatments necessary for design of interior spaces, the functions of each, and their appropriate uses. Students should feel confident in researching design products. Each student will have started a reference library of local and national vendors. Total Credits 3.00

#### INT 127 Materials for Interior Environments

Explorations of various hard treatments used in design are covered in this course. By the end of the semester, each student will know various hard treatments necessary for design of interior spaces, the functions of each, and their appropriate uses. Accurate specifications of interior materials are emphasized in this course. Students should feel confident in researching design products. Each student will have started a reference library of local and national vendors. Total Credits 2.00

#### INT 131 Faux & Decorative Painting

This course is an introduction to the techniques used to produce painted and faux finishes. Topics include the history of faux finishing, color mixing, technology of paint, materials used for creating faux finishes, and specific issues related to wall glazing, ragging, sponging, strie, wood graining, granites, stones, marble, Venetian plasters and raised plaster and other techniques. Upon completion of the course, the student will be able to produce a wide variety of finishes. This course introduces students to basic business practices for painted and faux finishing, book keeping, and pricing for various faux techniques. Total Credits 4.00

#### INT 141 History of Furniture & Architecture

This course provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces, and accessories from Egyptian period through Post Modern. Students will learn chronologies, key terms, designer contributions, and ruler influence on furniture and architectural elements in a time line manner. Through hands on experience with furniture and actually creating pieces of "art styled" furnishings they will comprehend what is involved in furniture making. Total Credits 3.00

#### INT 155 Lighting Technologies

This is an introduction to the basics of lighting technologies used in interior design: color, lighting styles, and lighting fixtures. Students will learn to read lamp indicators, calculate lumens and foot-candles, and determine proper heights and usage for various lighting techniques. An understanding of light analysis, residential and commercial lighting, lighting design, lighting applications, and requirements for various types of lighting are studied. Developments of lighting and electrical layouts on floor plans are inclusive in this course. Total Credits 3.00

#### INT 160 Design Studio I

This course provides long and short-term projects that address real life design situation. It will develop competencies in solving design problems and teamwork. Technical and conceptual concerns, color theory, lighting technology, scale, materials selection, and creative design articulation through presentation and illustrations are critical elements for this class. Deployment of invoicing techniques, material selection, and working within codes and standards are emphasized. Total Credits 3.00

#### INT 165 Design Studio II

This course provides long and short-term projects that address real life design situation. It will develop competencies in solving design problems and teamwork. Technical and conceptual concerns, color theory, lighting technology, scale, materials selection, and creative design articulation through presentation and illustrations are critical elements for this class. Development of invoicing techniques, material selection, working within codes and standards and working with a budget is emphasized in the course. Students will be working with real time case studies. Students may be invited to participate in events such as The Symphony Show House Design, Judge in the Wichita Area Building Associations Parade of Homes, or shadow designers with a project. Total Credits 2.00

#### INT 166 AutoCAD for Interior Design

This course introduces computer-aided drafting (CAD). The use AutoCAD is mastered to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. This course introduces drafting standards used for drawings with AutoCAD. Included are dimensioning, blocks, elevations, floor plans, section views, external references, construction drawings, standards for symbols and abbreviations, plotting and printing.

Total Credits 5.00

#### INT 170 Business Practices & Portfolio Development

This course covers client contracts, presentation skills, resource development, business forms and legal forms, business management and laws pertaining to interior design. A professional personal portfolio is refined in this class for employment purposes. A

professional resume will be included as part of the portfolio package. Students will obtain background knowledge necessary for successful business practices for interior design. Total Credits 3.00

#### INT 175 Seminars for Interior Design

This course is designed to help the student increase their knowledge concerning professional development through resources and artistic exploration. This course is held outside the classroom in real world settings. Tours of museums, building of architectural interest, and local vendors and showrooms are the target of this course. Students will develop networking skills and create a resource library for future use in the field of interior design. Total Credits 2.00

#### INT 185 Mentorship

This course is designed to help the student increase their knowledge in an in-depth application and reinforcement of interiors and employability principles in an actual job setting. Mentorship allows the student to get involved with on-the-job applications that require full time commitment. The intern will be evaluated by the use of written performance evaluations. On application of interior principles, problem solving, adaptability to job setting, use of personal skills, development of constructive work habits and ethics, practicing confidentiality, development of productivity and job performance through practice. Total Credits 1.00

#### INT 190 Drafting for Interiors

This course is designed to help the student increase their knowledge concerning drafting blueprints for interior construction and service systems, and emphasizes the development of fundamental drafting techniques. Topics include terminology, care and use of drafting equipment, lettering, line relationships and geometric construction. Total Credits 2.00

#### INT 192 Illustration for Interior Design

This course is designed to help the student increase their knowledge of the fundamentals of design through the exploration of sketching, hand drawing and drawings in one and two point perspective using a variety of grid layouts, eye-levels, vanishing points, cones of vision, and lighting sources are used. Total Credits 3.00

#### INT 193 Rendering for Interior Design

This course is designed to help the student increase their knowledge of the fundamentals of design through the exploration perspectives, cones of vision, and lighting sources. Rendering techniques are mastered by employing markers, colored pencils, and graphite. Rendered finishes include, but not limited to, reflective finishes, textures (wood, stones, and other elements), and shadows. Total Credits 3.00

#### INT 196 Interior Design Codes & Standards

This course is designed to focus on the most current and widely used building codes, fire codes, electrical and plumbing codes as required by the industry. Included are working with code officials, documenting projects both large and small, single-family homes, historical and existing buildings, and new construction. Total Credits 3.00

#### INT 201 Floral Design

An introduction to floral arrangements focuses on the components of display for effective visual presentation. This course utilizes the principles and techniques that are common to display working interiors and various businesses. The main emphasis will be on design and color principals, tools and materials used for floral arrangement and display, and safety issues. Wedding floral design and solemn occasions, plant and plant care, artificial and dried flowers, holidays, and theme arrangements are inclusive. Floral design business, securing funds, laws and licensing, shop layout, wholesale market, and pricing strategies for floral design business will be part of this program. Total Credits 4

#### INT 216 Kitchen Design

This course is designed to help the student develop skills necessary to design kitchen solutions using the National Kitchen and Bath Association (NKBA) standards and guidelines where applicable. Projects will include the complete documentation, specification, and job estimates needed to implement the design. Total Credits 3.00

#### INT 217 Bath Design

This course is designed to help the student develop skills necessary to design bath solutions using the National Kitchen and Bath Association (NKBA) standards and guidelines where applicable. Projects will include the complete documentation, specification, and job estimates needed to implement the design. Total Credits 3.00

#### INT 218 Kitchen & Bath Design

This course is designed to help the student develop special considerations necessary to design and plan kitchens and baths. Topics include the study of the basic principles of kitchen and bath design, planning, proper function and layout, accurate measuring techniques, specification documentation, theme and historical design. The application of the National Kitchen and Bath Association's Guidelines of Planning Standards and Safety Criteria for residential kitchens and bathrooms, including Universal Design concepts, will be covered. Topics include the use of building codes, safety criteria, universal and accessibility criteria, and ergonomics. Total Credits 4.00

#### LEN 100 Lean for Operations

This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in industry today. Students begin with a discussion of Lean Manufacturing's place in the overall process of continuous improvement. Students will then move on to learning to apply basic elements of lean, lean system design, lean tools and measurement methods to industry based scenarios. Total Credits 3.00

#### LEN 105 Lean Culture - People Systems

This course has been developed to enable the student to understand the differences between the current work cultures and a lean culture. Students will be able to identify the steps and changes necessary to implement lean while changing the culture to ensure the gains from Lean activities will continue. Total Credits 3.00

#### LEN 106 Value Stream Alignment

This course is designed to familiarize the students with the process of Value Stream Mapping and how to apply it to improve processes. The class will begin with a description of Value Stream Mapping and how it utilizes material and information flows. Students will learn how to complete a Current State Value Stream Map, evaluate the map and then create a Future State Value Stream Map and Implementation Plan. Total Credits 3.00

#### LEN 109 Lean for Engineering

This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in engineering practices today. Students begin with an overview of Lean Manufacturing and continuous improvement. Students will then learn to apply basic elements of lean and process improvement to Engineering scenarios. Total Credits 3.00

#### LEN 110 Lean for Services - Offices

This course will teach students the basics of both Lean and Six Sigma and how these problem solving methodologies apply to the service organizations. Students completing this course will be better prepared for real business world issues, and have the ability to apply these concepts and tools at a basic level. Total Credits 3.00

#### MMA 105 Basic Visual Design Concepts

An introduction to design for visual communication. Study of the elements and principles of design as they relate to formal issues in the making of art. This course also provides an introduction to the study of color as a formal element. Instruction will include lecture, critique, and supervised studio practice. Total Credits 3.00

#### MMA 110 Introduction to Multimedia

Introduction to skills, principles and ethics of using audio, images and video in telling stories through Internet-based media. Total Credits 3.00

#### MMA 115 Camera Techniques

This course will focus on the pre-production aspects of digital filmmaking such as camera angles and positioning, raw footage storage and editing, keying and shot set-ups, titles and compositional components of depth of field, character positioning, and narrative use of light and sound. Total Credits 3.00

#### MMA 120 3D Computer Modeling

Utilizing computer modeling software students will develop three-dimensional objects via the subtractive and additive methods. Student will demonstrate proficiency in multiplying and scaling designed objects in specific locations and environments, including animation. Total Credits 3.00

#### MMA 125 Video Game Concept Design

In this course students will learn the basics of designing environments, characters and assets for video games. The goal of this class is for students to establish a look and concept art for a game using Photoshop. These designs will be used in creating assets for their own game environments. Total Credits 3.00

#### MCD 101 Introduction to CAD I

This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. Students will use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD. This course also examines dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple use, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing drawings with AutoCAD. Total Credits 3.00

#### MCD 102 Introduction to CAD II

This course is a continuation of Introduction to CAD I. All the skills taught in Introduction to CAD I will be reinforced with projects. Total Credits 2.00

#### MCD 105 Technical Drafting I

Includes instruction in sketching and lettering, use and care of drafting equipment, geometric construction, multi-views, basics of isometrics, oblique projection and a study of drafting technology and ANSI Standards. Students draw introductory drawings to scale. Total Credits 1.00

#### MCD 112 Industrial Materials & Processes

Includes instruction in materials, measurement, specifications, design principles, hardware and fasteners, vocabulary, machine fabrication, Geometric Dimensioning and Tolerance (GD&T), Machinery's Handbook, surface finishes and an understanding of the fabrication practices used in manufacturing and construction. Total Credits 2.00

#### MCD 114 Architectural Drafting & Design

Includes instruction in freehand drawing, basic residential planning, creative design, dimensioning, working details, light construction principles, building systems and blueprint development, learning construction terminology, applying ANSI Standards, local codes and drawing prints to industry standards. Total Credits 3.00

#### MCD 115 Machine Drafting & Design

Includes instruction in creative design, geometric construction, auxiliaries, dimensioning, sectioning, isometrics, oblique's, specifications and notes, manufacturing engineering techniques and the Machinery's Handbook. Includes developing prints of working drawings, researching trade periodicals, learning machine terminology, using ANSI Standards and basic manufacturing blueprint development. Total Credits 3.00

#### MCD 121 Descriptive Geometry

Students use computers to study descriptive geometry as it applies to drafting, and they determine true length of lines, true shapes of planes and apply descriptive geometry to real problems. Students will also create flat pattern layouts for form three dimensional shapes. Total Credits 3.00

#### MCD 122 Architectural CAD

Students use computers to study descriptive geometry as it applies to drafting, and they determine true length of lines, true shapes of planes and apply descriptive geometry to real problems. Students will also create flat pattern layouts for form three dimensional shapes. Total Credits 4

#### MCD 124 Advanced AutoCAD

This course explores the three-dimensional construction and viewing capabilities of AutoCAD. Topics covered include a review of point coordinate entry and the user coordinate system (UCS). Spherical and cylindrical coordinate entry, 3D viewing and display techniques, construction of 3D solid primitives, 2D regions, solid modeling composites, and surfaces are also introduced. The use of multiple viewports for 3D constructions and creating 2D layouts are covered. Visual styles and rendering are also discussed. Total



Credits 4.00

**MCD 132 Basic Chief Architect/Architectural Desktop**

Students use the computers to learn how to utilize three dimensional software to design houses. This course provides instruction in how to use the software and draw walls, windows, doors, foundations, and roofs. Total Credits 3.00

**MCD 134 Advanced Chief Architect/Architectural Desktop**

Students use the computers to learn how to utilize three dimensional software to design houses. This course provides instruction in how to add interior furniture, terrains, elevations, working drawings, presentation drawings and how to use the camera functions. Total Credits 3.00

**MCD 140 Drafting Technology Internship**

Introduces students to the application and reinforcement of drafting and employability principles in an actual job setting. This internship acquaints the student with realistic work situations and provides insights into a drafting job. Topics include appropriate work habits, acceptable job performance, application of drafting/CAD knowledge and skills, interpersonal relations, and development of productivity. Total Credits 4.00

**MCD 205 Residential Drafting**

Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include: footing, foundation, and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans, and specifications. Total Credits 3.00

**MCD 206 Commercial Drafting & Design**

Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include: structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings. Total Credits 3.00

**CAT 103 CATIA Functional Tolerancing & Annotation**

This course is for those interested in model based definition, where the 3D model is the master instead of the draft sheet. This course covers all of the necessary options to properly apply tolerancing and annotations on the 3D part or product. Total Credits 4.00

**MCD 110 Principles of Tool Design**

Provides an understanding of the general methods of tool design with emphasis on jigs and fixtures. Instruction and projects enable students to develop ideas into practical specifications for modern manufacturing methods. Total Credits 2.00

**MCD 201 Geometric Dimensioning & Tolerance**

The Geometric dimensioning and tolerance course is an in-depth study designed to develop a basic working knowledge in geometric dimensioning and tolerancing (GD&T). It is delivered per the ASME Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel need to know in order to work in an industrial environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color animated graphics, video clips and plastic models which allow the students to clearly understand the concepts. Total Credits 3.00

**MDU 010 Medication Aide Update**

Provides the continuing education required every two years by the Kansas Department of Health and Environment for renewal of the medication aide certificate. Total Credits 1.00

**MEA 101 Medical Professional Issues**

Reviews the role and function of the Medical Assistant. This course focuses on the basic concept of the professional practice of medicine and the scope of practice of the Medical Assistant. Students discuss the personal and professional characteristics and legal and ethical standards for Medical Assistants; explore professional and personal therapeutic communication, and addresses time management and goal setting. Total Credits 2.00

**MEA 111 Patient Care I**

Introduces basic clinical skills necessary for the Medical Assistant. Aseptic practice for the medical office will be defined, basic

patient interaction such as interviewing, obtaining and recording vital signs, assisting with basic physical exams and testing will be studied Total Credits 5.00

#### MEA 113 Medical Administrative Aspects

Provides an introduction to the administrative skills needed for a medical office. Students learn how to maintain medical records (both paper and electronic), manage appointments, and perform routine office duties. Focuses on the financial aspects of the medical office including accounts payable and accounts receivable. Students examine billing and collection procedures. Total Credits 4.00

#### MEA 115 Insurance Billing & Coding

Explores the medical insurance system and related billing and coding. Students learn how to complete and submit electronic and paper insurance claim forms, perform referrals, and apply the correct procedure and diagnostic codes. Total Credits 3.00

#### MEA 116 Pharmacology Medication Administration

Course focus is in medication dosage calculation and medication administration by parenteral and gastrointestinal routes for adults and children. Completing a written prescription and interpretation of the medical order. Successful demonstration of skill competency is required. Total Credits 2.00

#### MEA 121 Patient Care II

Focuses on expanding the knowledge and skills in Patient Care I. More complex and independent procedures performed by the Medical Assistant will be explored. Addresses surgical procedures, physical therapy, principles of radiology, emergency procedures and pulmonary function testing. Includes the performance of an electrocardiogram (EKG). Total Credits 4.00

#### MEA 125 Clinical Laboratory Procedures

This course addresses the role and function of the professional in the clinical laboratory setting. Topics include safety, Clinical Laboratory Improvement Act of 1988 (CLIA-88) government regulations and quality assurance in the laboratory. Students learn concepts and perform procedures in the different departments of the laboratory, including specimen collection and performance of CLIA-88 low- and/or moderate-complexity testing. Students demonstrate competencies in a wide variety of techniques used to collect, process, and test specimens. Total Credits 4.00

#### MEA 130 Career Strategies

Professional communications and the importance of the professional credential and professional memberships are explored. Interviewing skills are expanded through resume writing. Total Credits 1.00

#### MEA 131 Medical Assistant Practicum

Provides the opportunity to apply clinical, laboratory, and administrative skills in a supervised, non-remunerated externship in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional. Requires current cardio pulmonary resuscitation (CPR) certification (health care provider level). Total Credits 6.00

#### MEA 210 Advanced Procedures in Medical Assisting

Provides the graduate Medical Assistant an opportunity to expand current knowledge and expertise in specialized testing areas and in assisting with the performance of more complex clinical duties. Total Credits 4.00

#### MEC 101 Insurance Billing & Coding for the Physician's Office

Designed to prepare students with the mechanics and tools for the submitting of electronic/paper insurance claim forms after applying current industry coding for medical office treatments and procedures. Total Credits 3.00

#### MEC 110 Legal and Ethical Issues in Healthcare

This course introduces the U.S. legal system, laws and ethical issues and how they relate to health care. Total Credits 3.00

#### MEC 115 Pathophysiology

Course focus is on the diseases, disorders, conditions, and the diagnostic and corrective procedures performed. Content is delivered according to body systems. Total Credits 3.00



#### MEC 120 International Classification of Disease Coding

This course covers coding principles using the International Classification of Diseases (ICD) for the identification, coding and sequencing of principal, primary and secondary diagnoses and diagnostic and therapeutic procedures. Total Credits 4.00

#### MEC 125 Introduction to Health Information

This course is designed to give the student a working knowledge of health care delivery systems; the health information profession; purpose, use and functions of the health record; documentation standards; and computerized information management systems utilized by health information management departments. Total Credits 3.00

#### MEC 130 Reimbursement Methodologies

This course emphasizes billing and reimbursement procedures for various for healthcare settings and an exploration of the legal and ethical issues of reimbursement. Total Credits 4.00

#### MEC 135 Healthcare Coding Practicum

Supervised learning experience designed to give students clinical experience in healthcare coding. Emphasis is placed on the quality of code assignments, sequence and payment selection. Total Credits 3.00

#### MEC 140 Current Procedural Terminology

Current Procedural Terminology (CPT) Coding is designed to present basic CPT and HCPCS coding. The course will enable students to develop a basic knowledge of elements of medical procedural coding using the CPT and HCPCS manuals. Various body systems will be reviewed so that students will better understand how the coding is derived. The applications and principles learned in this course are relevant to careers in healthcare coding. Total Credits 3.00

#### MET 101 Fundamentals of Quality Control

This course will provide students with a fundamental understanding of quality improvement. Topics will include history of the movement, impact on industry, major components and tools of quality control as well as future trends. Students will have the opportunity to apply what they learn to industry based scenarios. Total Credits 3.00

#### MET 109 Manufacturing Quality Control

Introduces the student to statistical quality control of industrial processes. Topics include: descriptive statistics, inferential statistics, statistical process, and operational production management. The course will enable the student to conduct economic feasibility studies and assist in the preparation of justification documentation for capital expenditures. In addition to illustrating classroom presentations, laboratories expand the student's experience in broader areas of application which encompass additional materials. Total Credits 3.00

#### MFG 100 Lean Manufacturing

This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in industry today. Students begin with a discussion of Lean Manufacturing's place in the overall process of continuous improvement. Students will then move on to learning to apply basic elements of lean, lean system design, lean tools and measurement methods to industry based scenarios. Total Credits 3.00

#### MGT 106 Introduction To Human Resources

Comprehensive view of human resources within an organization. Students examine the human resource functions of strategic human resource management, workforce planning, recruitment and selection, human resource development (training and development), total rewards (compensation and benefits), employee and union relations and risk management (health, safety and security). Emphasis is placed on understanding how human resource management contributes to an organization's strategic direction and enhances the organization's competitiveness.

Total Credits 3.00

#### MGT 111 Business Ethics

Provides students with an overview of business ethics and ethical management practices, with emphasis on the process of ethical decision-making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to the students how ethics can be integrated into strategic business decisions

and can be applied to their own careers. The course uses a case study approach to encourage the student in developing analytical, problem-solving, critical thinking and decision-making skills. Topics include: An overview of business ethics; moral development and moral reasoning, personal values, rights and responsibilities; frameworks for ethical decision-making in business' justice and economic distribution' corporations and social responsibility, corporate codes of ethics and effective ethics programs, business and society; consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace; and business ethics and the rule of law. Total Credits 3.00

#### MMG 101 Machining Blueprint

Utilize CAD and CAM programs to design parts and program manufacturing machines. Total Credits 1.00

#### MMG 115 Machining I

Students will learn to conduct job hazard analysis for conventional mills and lathes, develop math skills for machine tool operations, perform preventive maintenance and housekeeping on conventional mills and lathes, select work holding devices for mills, lathes and other machine tools, calculate feeds and speeds, remove material using milling and turning processes, align milling head, use a vertical mill to center drill, drill and ream holes, change tools and tool holders on milling machines, and maintain saws and grinders. Total Credits 3.00

#### MMG 116 Quality Control & Inspection

Students are introduced to the science of dimensional metrology and its applications to ensure form and function of machined parts and assemblies using semi-precision and precision measuring instruments. Total Credits 1.00

#### MMG 126 Machining II

Students learn to perform basic trigonometric functions, and perform other procedures such as I.D. boring and facing operations, planning a sequence for machining operations, aligning work pieces, use work holding devices, jigs and fixtures, performing threading operations on lathes, machining keyways on a vertical mill, inspecting and dressing grinding wheels, performing O.D. & I.D. threading operations, performing O.D. & I.D. tapering operations, machining parts using milling cutters and milling machines, and tapping holes on a vertical mill. Total Credits 3.00

#### MMG 130 Bench Work

Students will be provided the opportunity to learn and practice benchwork skills such as filing, drilling, tapping, deburring and layout for projects. They will gain valuable practical experience in the use of various hand tools by producing basic benchwork projects. Topics will include safety, print reading, job planning, and quality control. Total Credits 1.00

#### MMG 131 Metallurgy

Students learn the metallurgical terms and definitions in an effort to understand the behavior and service of metals in industry. Characteristics during heating, cooling, shaping, forming, and the stress related to their mechanical properties are covered, as well as the theory behind alloys, heat treatment processes and wear resistance. Total Credits 1.00

#### MMG 132 Machine Tool Processes

Students learn to conduct a job hazard analysis for a machine tool group, analyze blueprints to layout parts and materials, select hand tools and common machine shop mechanical hardware for specific applications, prescribe cutting tools for assigned operations, calculate stock size to minimize drop, machine parts to specifications outlined in machine handbooks, summarize preparations for machining operations, and apply precautions to minimize hazards for work with lathes, mills, drills and grinders. Total Credits 1.00

#### MMG 142 Manual Lathes

This course includes theory and laboratory instruction about basic lathe operations, safety, use and care of hand and machine tools. A combination of instructional methods are utilized including hands on instruction in a state of art machining lab and interactive on line learning. Topics include basic lathe operations such as turning, facing, drilling, tapping and tool grinding Total Credits 6.00

#### MMG 147 Principles of Machining I

Introduces students to basic metal-working concepts, including metal-cutting fundamentals, identification and use of hand and cutting tools, various machine tool operations, and the use and care of precision measuring instruments. Course is a preliminary to matching lab courses and addresses the safe use of machine and hand tools. Total Credits 2.00

#### MMG 155 CNC Lathe

Introduces students to two axis computer numerical control lathes machining. The theory of operations is developed in the class-room and through interactive on line learning. Students then apply the knowledge in a cutting edge CNC laboratory. Topics include machine set up, coordinates terminology, cutter paths, angel cutting, and linear cutting. Total Credits 3.00

#### MMG 156 CNC Operations

Students will become acquainted with the history of Numerical Control (NC) and Computer Numerical Control (CNC) machines and will be introduced to a CNC machine used in the precision machining trades. They will gain practical experience in the application of "G" codes and "M" codes, writing CNC machine programs, and machine setup and operation. Total Credits 3.00

#### MMG 160 CNC Milling I

Students will gain practical experience in setting up and performing basic operations on CNC Milling machines. Total Credits 3.00

#### MMG 165 Advanced NC Programming

Students will gain NC programming experience needed for the NIMS CNC Mill Programming certification. Total Credits 3.00

#### MMG 170 CAM I

Course will be added to fulfill industry request for Mastercam programming. Total Credits 3.00

#### MMG 225 Internship/Directed Work Study

This internship course offers students opportunities to be employed in their field with a 40hour work week to expand their work experience related to their field of study. Total Credits 4.00

#### MSO 121 Advanced Word for Office Professionals

Upon completion of this course students should understand the basic and advanced concepts of Word. Students should be able to pass the Microsoft Word Certification Exam. Total Credits 1.00

#### MSO 122 Advanced Excel for Office Professionals

Upon completion of this course students should understand the basic and advanced concepts of Excel. Students should be able to pass the Microsoft Excel Certification Exam. Total Credits 1.00

#### MSO 123 Advanced PowerPoint for Office Professionals

Upon completion of this course students should understand the basic and advanced concepts of PowerPoint. Students should be able to pass the Microsoft PowerPoint Certification Exam. Total Credits 1.00

#### MSO 124 Advanced Access for Office Professionals

Upon completion of this course students should understand the basic and advanced concepts of Access. Students should be able to pass the Microsoft Access Certification Exam. Total Credits 1.00

#### MST 100 Introduction to Therapeutic Massage

This course will enable the student to gain experience in Swedish massage techniques for on-site seated chair massage, client safety, communication skills, equipment safety, hygiene and self-care, contraindications, body mechanics, documentation, and establishing a seated massage business. Total Credits 1.00

#### MST 105 Advanced Massage Therapy Techniques

This elective course introduces the student to a variety of massage therapy techniques based on the latest trends/issues in the Massage Therapy industry. History of the modality, equipment, products and treatment application procedure will be addressed. Topics may include basic spa techniques, advanced spa techniques, techniques for special populations, advanced clinical massage or Oriental Massage techniques. Total Credits 2.00

#### MST 110 Body Systems and Disease I

This course will enable the student to apply basic principles of structure, function and disease to massage therapy and will include the following systems: integumentary, skeletal, muscular (part 1), circulatory and digestive. The students will also explore

demographics, etiology, signs/symptoms and treatment options of common disorders. Total Credits 4.00

#### MST 115 Therapeutic Massage I

This course will enable the student to understand the foundations of massage therapy and to administer a Swedish massage. The student will engage in theory discussions and lab/technique instruction and practice. The student will gain experience in Swedish massage techniques, client safety, communication skills, equipment safety, hygiene and self-care. The student will gain experience in relaxation massage as well as on-site seated chair massage. Total Credits 5.00

#### MST 120 Reflexology

In this course, students learn the ancient massage practice which correlates specific points on the hands, feet and ears to the major systems of the body. Clinical practice indications and contraindications are emphasized. Class time is spent learning reflexology massage techniques and performing a routine of reflexology massage. Development of a reflexology practice is explored. Total Credits 3.00

#### MST 125 Therapeutic Massage II

This course will enable the student to use assessment skills to determine appropriate therapeutic procedure. The student will learn intermediate techniques to incorporate into their massage procedure. The student will integrate active and passive joint movement and aromatherapy. Total Credits 4.00

#### MST 130 Massage Ethics

This course will enable the student to learn professional and ethical principles of the massage industry and incorporate them into his/her massage therapy practice. Total Credits 2.00

#### MST 135 Sports and Clinical Massage

This course will enable the student to assess athletic and non-athletic clients and properly apply specific massage techniques, theory, philosophy and practice of sports massage. Classroom presentations focus on topics of injury pathology and specialized clinical methods for relief of activity-altering injuries/complaints, dysfunction, trigger points, and common injuries of each muscle palpated. The student will practice clinical applications of sports massage for common athletic complaints of the upper and lower extremities. Total Credits 3.00

#### MST 140 Body Systems and Disease II

This course will enable the student to apply basic principles of structure, function and disease to massage therapy and will include the following systems: muscular (part 2), lymphatic, respiratory, endocrine, urinary, reproductive and nervous. The student will also explore demographics, etiology, signs/symptoms and treatment options of common disorders. Total Credits 4.00

#### MST 145 Lifespan Massage

This course will enable the student to integrate massage techniques and bodywork with developmental needs of clients throughout all stages of life. Through an understanding of the physical, cognitive and psycho-social characteristics of each major age group, the student will perform assessments and develop massage and/or bodywork regimens appropriate for his clients of all ages. Total Credits 3.00

#### MST 150 Mechanics of Movement

This course will enable the student to identify basic biomechanic principles through an in-depth study of the structure and function of the musculoskeletal system as it relates to movement, posture, health, and massage. The student will identify and palpate major muscles, locating origins and insertions while demonstrating actions and applying the concepts to his/her massage practice. Total Credits 3.00

#### MST 155 Therapeutic Massage III

This course will enable the student to obtain advanced business skills through various marketing, advertising, and bookkeeping strategies. After completing the Massage Therapy program, the student will be prepared to take the National Certification Exam. Total Credits 2.00

#### MST 160 Massage Therapy Clinic

This course will enable the student to apply appropriate massage therapy techniques in a client-centered massage therapy session for the client under direct supervision. Total Credits 1.00

#### MTH 020 Math Fundamentals

This online course provides students a thorough study in the arithmetic of real numbers with elementary applications in consumer math and measurement. Students are introduced to the basic concepts of algebra. Topics include: Whole Numbers and Introduction to Algebra; Integers; Introduction to Equations and Algebraic Expressions; Fractions, Ratios, and Proportions; Operations on Fractional Expressions; Decimals and Percents; Measurement, Geometric Figures and Measures of Central Tendency. Total Credits 3.00

#### MTH 025 PACER Mathematics I

This traditional/hybrid course provides the opportunity for students to master the math skills required for the chosen academic/career goals via an individualized, self-accelerated pathway. Topics include: Whole Numbers and Introduction to Algebra; Integers; Introduction to Equations and Algebraic Expressions; Fractions, Ratios, and Proportions; Operations on Fractional Expressions; Decimals and Percents; Measurement, Geometric Figures and Measures of Central Tendency. Total Credits 3.00

#### MTH 035 PACER Mathematics II

This traditional/hybrid course provides the opportunity for students to master the math skills required for their chosen academic/career goals via an individual, self-accelerated pathway. This course is a continuation of the curriculum started in PACER Mathematics I. Topics include: Introduction to Polynomials; Equations, Inequalities, and Applications; Graphing and Functions; Systems of Linear Equations and Inequalities; Exponents and Polynomials. Total Credits 3.00

#### MTH 101 Intermediate Algebra

This online/traditional/hybrid course provides students with the algebraic skills necessary to begin conceptualizing abstract mathematical concepts in preparation for MTH 112 (College Algebra). Topics include: Solving Linear Equations and Inequalities; Graphs, Functions, and Applications; Systems of Equations; Polynomials and Polynomial Functions; Rational Expressions, Equations, and Functions; Radical Expressions, Equations, and Functions; and Introduction to Quadratic Equations. Total Credits 3.00

#### MTH 102 Intermediate Algebra with Review

This online course provides students with the same algebraic skills discussed in MTH 101 (Intermediate Algebra) with additional review and practice of elementary algebraic skills. Topics include: Introduction to Polynomials; Equations, Inequalities, and Applications, Graphing and Functions; Systems of Linear Equations and Inequalities; Exponents and Polynomials; Factoring; Rational Expressions and Equations; Rational Exponents and Radicals; and Introduction to Quadratic Equations. Total Credits 5.00

#### MTH 105 PACER Mathematics III

This traditional/hybrid courses provides the opportunity for students to master the math skills required for their chosen academic/career goals via an individualized, self-accelerated pathway. This course is a continuation of the curriculum completed in PACER Mathematics I & II. Topics include: Factoring; Rational Expressions and Equations; Rational Exponents and Radicals; and Quadratic Equations. Total Credits 3.00

#### MTH 111 College Algebra with Review

This course is an introduction of algebraic functions and some transcendental functions with application in business and life, natural and social sciences. Topics include solving equations, zeros, rational functions, matrices, exponentials and logarithms and systems. Additional topics are included as time permits. Students must furnish their own TI-83 or TI-83 PLUS graphing calculators. Total Credits 5.00

#### MTH 112 College Algebra

This online/traditional/hybrid course will enable the student to use and interpret the mathematical symbols and notation relating to functions. The student will analyze the graphs of various mathematical functions with the assistance of a graphing utility, including polynomial, rational, root, absolute value, logarithmic and exponential functions, and solve related equations and inequalities, including systems of equations and inequalities. The student will use both graphical analysis and equation solving in the context of word problems. Topics include: Equations and Inequalities; Functions and Graphs; Polynomial and Rational Functions; Exponential and Logarithmic Functions; Systems of Equations and Inequalities; Matrices and Determinants. Total Credits 3.00

#### MTH 113 Trigonometry

This course will enable the student to identify and manipulate trigonometric functions, solve triangles, use and prove identities,

solve trigonometric equations, use and apply vectors to real-life models, and use complex numbers and polar coordinates. Topics include: Angles and the Trigonometric Functions; Graphs of the Trigonometric Functions; Inverse Trigonometric Functions; Trigonometric Identities; Laws of Sines and Cosines; Vectors; Complex Numbers, Polar Coordinates and Parametric Equations. Total Credits 3.00

#### MTH 115 Pre-Calculus Mathematics

This course will enable the student to develop and apply models using linear, polynomial, rational, logarithmic, exponential, and trigonometric functions. The successful student will be able to identify and manipulate functions, solve equations, prove trigonometric identities, solve triangles, and use polar coordinates. Topics include: Equations and Inequalities; Functions and Graphs; Polynomial and Rational Functions; Exponential and Logarithmic Functions; Systems of Equations and Inequalities; Matrices and Determinants; Angles and the Trigonometric Functions; Graphs of the Trigonometric Functions; Inverse Trigonometric Functions; Trigonometric Identities; Laws of Sines and Cosines; Vectors; Complex Numbers, Polar Coordinates and Parametric Equations. Total Credits 5.00

#### MTH 120 Elementary Statistics

This course will enable the student to collect data by appropriate sampling techniques, summarize data with graphs and tables, calculate descriptive statistics, identify misuses of statistics, assess risk using concepts of probability, estimate and make decisions about means and proportions through the use of confidence intervals and hypothesis testing, and perform linear regression. Topics include: Data Collection; Organizing and Summarizing Data; Numerically Summarizing Data; Describing the Relation between Two Variables; Probability; Discrete Probability Distributions; The Normal Probability Distribution; Sampling Distributions; Estimating the Value of a Parameter; Hypothesis Tests Regarding A Parameter, and Inferences on Two Samples. Total Credits 3.00

#### MTH 121 Elementary Statistics Lab with Excel

Using Excel to construct Frequency Tables & Histograms, compute and explore Measures of Tendency. Sampling Distributions, Confidence Intervals, and Hypotheses testing. This course requires that the student have MICROSOFT EXCEL 97 or greater. Total Credits 1.00

#### MTH 125 Calculus I

This course will enable the students to solve problems involving limits, derivatives and some types of definite and indefinite integrals both analytically and graphically, and use them in physical applications. Total Credits 5.00

#### MTH 150 Calculus II

This course will enable the student to understand applications and methods of integration, improper integrals, convergence and divergence of infinite series, graphs of conic sections, the polar coordinate system, parametric equations, and linear algebra Total Credits 5.00

#### NDT 100 Penetrant Inspection

In this course students will master the competencies associated with Liquid Penetrant testing at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 2.00

#### NDT 101 Magnetic Particle Testing Method for NDT

In this course students will master the competencies associated with the Magnetic Particle Testing method at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 102 45 Hour Radiation Safety

Description In this course students will master the competencies associated with Radiation Safety. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT), Nuclear Regulatory Commission, and the State of Kansas. Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 103 Radiographic Testing Method II

In this course students will master the competencies associated with Radiographic Testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00



#### NDT 105 Computed Radiographic Imaging

This course provides students with the knowledge and skills needed to utilize computed radiographic imaging materials and equipment in the manufacturing, aerospace, transportation, energy, and refinery environment. Students will learn to utilize the different type's radiographic imaging equipment, measuring tools, imaging enhancing devices, and storage and transfer functions. Students will learn to operate computer radiography equipment and perform operator maintenance and process controls. Upon completion of the course the student will be able to perform all function of computed radiographic imaging to industry standards.

Total Credits 3.00

#### NDT 110 Eddy Current Level I

In this course students will master the competencies associated with electromagnetic (Eddy Current) testing at with Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 111 Eddy Current Level II

In this course students will master the competencies associated with electromagnetic (Eddy Current) testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 112 Ultrasonic Testing Method Level I

In this course, students will master the competencies associated with Ultrasonic Testing Methods at Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 113 Ultrasonic Testing Method Level II

In this course, students will master the competencies associated with Ultrasonic Testing Methods at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 114 Visual Inspection

In this course, students will master the competencies associated with Visual Inspection. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 115 Introduction to Ultrasonic C-Scan and Phased Array

This course provides students with the knowledge and skills needed to utilize Ultrasonic C-Scan and Phased Array inspection materials and equipment in the manufacturing, aerospace, transportation, energy, and refinery environment. Students will learn to utilize the different type's Ultrasonic C-Scan and Phased Array materials and equipment, interpret the test results and apply those results to industry-specific scenarios Total Credits 3.00

#### NDT 116 Bond Testing for NDT

This course is designed to provide students with the classroom and laboratory experience which will prepare them to perform bond testing on composite and conventional aviation parts/assemblies. Topics will include materials, equipment and bond testing methods. Laboratory experiences will include selecting and performing bond testing on various types of composite and mechanical parts/assemblies. Total Credits 2.00

#### NDT 117 Assembly Overview for NDT

This course is designed to provide the NDT student with the basic overview of aircraft assembly including both composite and sheet metal assembly and inspection techniques. Total Credits 3.00

#### NDT 120 Ultrasonic Phased Array II

This course provides students with the knowledge and skills needed to utilize Ultrasonic Phased Array inspection materials and equipment in the manufacturing, aerospace, transportation, energy, and refinery environment. Students will learn to utilize the different type's Ultrasonic Phased Array materials and equipment, interpret the test results and apply those results to industry-specific scenarios. Students will master techniques for the phased array shear wave inspection of welds to ASTM, ASME, and Aviation

standards. Students will learn to display inspection results in A-Scan, S-Scan, and C-Scan formats simultaneously while using overlays for correct defect identification and location. Total Credits 2.00

#### NDT 125 Phased Array Time of Flight Diffraction (TOFD)

This course provides students with the knowledge and skills needed to utilize Ultrasonic Time of Flight Diffraction (TOFD) technique materials and equipment in the manufacturing, aerospace, transportation, energy, and refinery environment. Students will learn to utilize the different type's TOFD materials and equipment, interpret the test results, size internal flaws, and apply those results to industry-specific scenarios. Students who complete this course should have sufficient background to utilize the Ultrasonic Phased Array TOFD technique used in many industries Total Credits 2.00

#### NDT 150 Vibration Analysis Level I

Provides an introduction to Vibration Analysis. The student focuses on learning vibration analysis terminology, measurement units, principles, hardware, and software. The course also gives a functional understanding of machinery basics. Students will demonstrate proficiency in data collection and fundamentals of analysis. Total Credits 3.00

#### NDT 151 Vibration Analysis Level II

This course reviews and expands on the knowledge obtained in Vibration Analysis I. The students will use calculations, graphs, and charts to demonstrate their ability to understand the theories and application of vibration analysis. Students will become familiar with the many different tools, software, and accessories necessary to provide good vibration analysis to a customer. The students will gain more knowledge in the proper way to collect and analyze data. Total Credits 3.00

#### NDT 152 Vibration Analysis Level III

This course is designed to provide the student with the ability to design or manage a vibration program, to evaluate an outside vibration analysis program, to integrate other predictive technologies into their program, and to provide in depth analysis to an existing vibration analysis program. A level III vibration analyst may also be called upon to provide on-the-job training to new hires within a company. Total Credits 3.00

#### NDT 155 Thermography Level I

The course provides an introduction to the principles of Thermography and the operation of Infrared equipment in realistic scenarios. The student focuses on learning the modes of heat transfer, radioactivity. The student will gain proficiency in identifying acceptable and rejectable images, optimizing images, and selecting the best image perspective to capture required data. Students will also demonstrate the knowledge and ability to perform Image storage and recall, report writing, and quality reporting. Total Credits 3.00

#### NDT 156 Thermography Level II

This course expands upon the topics covered in Thermography I and goes deeper into data analysis. Students will learn the functionality of thermal cameras, keys to capturing good thermal images, data storage, and reporting. Students will use mathematical formulas to calculate heat transfer rates associated with the laws of thermodynamics. Total Credits 3.00

#### NDT 157 Thermography Level III

Thermography III is designed to provide the student with the ability to design or manage an infrared program, to evaluate outside infrared services, to integrate other predictive technologies into their program, and to provide in depth analysis to an existing infrared program. A level III Thermographer may also be called upon to provide on-the-job training to new hires within a company. Total Credits 3.00

#### NDT 160 Acoustic Emission Testing Level I

In this course students will master the competencies associated with the Acoustic Emission Testing method at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom. Total Credits 3.00

#### NDT 165 Machine Lubrication and Analysis I

Machine lubrication and analysis I provides an introduction to machine lubrication and the techniques used to analyze lubricating fluids. The student focuses on machine failure modes and the role of lubrication in asset health, preventive, and predictive maintenance. The student learns the fundamentals of tribology, chemical composition of lubricating fluids, and various types of lubricating systems. Students will demonstrate proper lubricant application in various situations. Total Credits 3.00



#### NDT 166 Machine Lubrication and Analysis II

Machine lubrication and analysis II provides a more in depth look at machine lubrication and the techniques used to analyze lubricating fluids. The student focuses on machine failure modes and the role of lubrication in asset health, preventive, and predictive maintenance. The student learns the fundamentals of tribology, chemical composition of lubricating fluids, and various types of lubricating systems. Students will demonstrate proper lubricant application in various situations. Total Credits 3.00

#### NDT 167 Machine Lubrication and Analysis III

Machine lubrication and analysis III is designed to provide the student with the ability to design or manage an oil analysis program, to evaluate outside oil analysis services, to integrate other predictive technologies into their program, and to provide in depth analysis to an existing oil analysis program. A level III oil analyst may also be called upon to provide on-the-job training to new hires within a company. Total Credits 3.00

#### NDT 170 Electrical Motor Testing

This course will teach students to use a PdMA MCEmax tester to evaluate the condition of electric motors, motor circuits, and the associated components. Students will learn the basics of electrical circuits, electrical theory, and motor construction. This course will take the student through the process from hooking up the tester, to analyzing the data, and making repair recommendations. Total Credits 2.00

#### OPM 100 Lean Sigma

This course will teach students the basics of both Lean and Six Sigma and how these problem solving methodologies apply to manufacturing and service organizations. Students completing this course will be better prepared for real business world issues, and have the ability to apply these concepts and tools at a basic level. Total Credits 3.00

#### OPM 105 Operations Management for Organizational Success

Operations Management introduces and applies the components of the continuous improvement philosophy and process to the operations of organizations. The study of dynamic management involvement and the use of continuous evaluation tools are reviewed and applied. These include applied management techniques and statistical measures of business processes. Total Credits 3.00

#### OPM 110 Introduction to Supply Chain Management

Supply Chain Management introduces the building blocks of Supply Chain Strategy and the relationship with SC corporate strategy. Defines the elements of Supply Chain Management, including the importance of collaboration and partnering in a competitive business environment. Discusses the need for measures to manage the business and how the financial aspects are affected by SCM. Discusses outsourcing and why companies outsource to remain competitive. Total Credits 3.00

#### OPM 115 Introduction to Project Management

This course focuses on a holistic approach to project management. The content deals with planning, scheduling, organizing, and controlling projects for example, product development, construction, information systems, new businesses, and special events. The course includes major topics of Strategy, Priorities, Organization, Project Tools, and Leadership. Primary class emphasis is on the project management process and tools. Project management is becoming more important in today's world. Mastery of key tools and concepts could give you a significant competitive advantage in the marketplace. Total Credits 3.00

#### PCT 100 EKG for Healthcare Providers

Focuses on the specialized procedures associated with the cardiovascular system. Students will perform electrocardiograms. Course also serves as an introduction to basic dysrhythmias and the skills necessary to recognize normal from abnormal in an emergency. Specific attention is given to patient significance and possible early intervention for each dysrhythmias. EKG rhythm strips, and exercises are provided for student recognition and practice. Total Credits 4.00

#### PCT 105 Dementia Care

Examines the types and causes of dementia and how they differ from symptoms of the normal aging process. Provides an overview of common behavioral problems associated with dementia as well as the best strategies and approaches for dealing with these problems. Insights into why individuals with dementia behave in erratic ways, and affirms these patients' humanistic value despite such challenging behavior. Total Credits 4.00

#### PCT 110 Clinical Procedures

This course addresses the role and function of the professional in the clinical laboratory setting. Topics include safety, Clinical Laboratory Improvement Act of 1988 (CLIA-88) government regulations and quality assurance in the laboratory. Students learn concepts and perform procedures in the different departments of the laboratory, including specimen collection and performance of CLIA-88 low- and/or moderate-complexity testing. Students demonstrate competencies in a wide variety of techniques used to collect, process, and test specimens. Total Credits 4.00

#### PDV 010 Campus Safety Act

This course serves as the primary prevention and awareness program for all students, faculty, and staff in support of the Title IX, the Campus SaVE Act, and the Violence against Women Act (VAWA). This course will promote the awareness of rape, acquaintance rape, domestic violence, dating violence, sexual assault, and stalking. Participants will learn safe and positive options a bystander can take when he or she witnesses potential violations, information about risk reduction, and how to recognize warning signs of abusive behavior and potential attacks. Participants will learn procedures victims should follow as well as resources, protection, and support options for victims. Finally, participants will learn the disciplinary procedures in place at WATC.

#### PDV 101 Learning Strategies

This course is designed to help the student learn effective study skills that enable the student to be academically successful. The student will learn how to make application of these skills in a course of study. The course will cover time management, goal setting, listening, note taking, test strategies, and online learning. It is recommended any student who has a GPA of 2.0 or lower upon initial enrollment or after his/her first semester of college course work enroll in the class. This course does not count toward an A.S., A.A., A.G.S., or A.A.S. degree. Total Credits 3.00

#### PDV 105 - Blueprint for Personal Success

The professional world is full of challenging situations, including conflicting personalities, miscommunication, and cultural differences. In this course, students will learn about typical workplace etiquette protocols, communication standards, and cultural awareness strategies in order to navigate these common obstacles. This course will prepare students by educating them on the importance of establishing and maintaining their professional image in the workplace. Whether students are working on the manufacturing floor, in a medical facility or in a professional office setting practicing professional etiquette will help ensure that their occupational environment is positive and productive. Students will integrate internal attitudes with external behaviors so that their personal attributes reflect the expectations of their future employers. The course provides a study of human relations and professional development in today's rapidly changing world. The course prepares students for living and working in a complex society through a focus on professionalism, work ethic, teamwork (collaboration) and oral communication. Topics include: Goal Setting, Entry Level Leadership, Communication, Teamwork and Diversity, Career Management, Lifestyle Design, and Disruption in Industry. 2.000 Credit hours 30.000 Lecture hours

#### PHL 115 Logic

This course deals with the uses of logical concepts and techniques to evaluate and criticize reasoning. Studies some elementary systems of formal logic. Arguments evaluated are drawn from such diverse fields as law, science, politics, religion, and advertising. Total Credits 3.00

#### PHS 110 Physical Science

A non-technical course intended for students who are majoring in fields other than science. The application of scientific knowledge to daily life activities is emphasized by examining the fundamental principles in physics, chemistry, geology and astronomy utilizing the scientific method. Total Credits 5.00

#### PHS 115 Introductory Astronomy

Introduction to Astronomy topics include fundamental concepts (planetary, stellar, and lunar motion; gravitation; light and telescopes); solar system 1 (Earth, Moon, Mercury, Venus, and Mars); solar system 2 (Jupiter and satellites, Saturn and satellites, outer planets); stars (nature of stars, birth, evolution and death of stars, neutron stars, black holes); universe (galaxies, quasars, blazars, cosmology). Total Credits 5.00

#### PHS 120 General Physics I

Topics include mechanics — linear motion, rotational motion, force, work, energy, momentum and conservation principles; heat-temperature, ideal gas, energy as a form of energy, first law of thermodynamics, second law of thermodynamics and entropy;

and wave motion — simple harmonic motion, elasticity and the wave equation. This class is designed for students who need five hours of physics without calculus. Total Credits 5.00

#### PHS 125 General Physics II

A continuation of PHS 120 General Physics I. Topics include electricity and magnetism, electric potential, current electric power, magnetic field and induction; optics nature of light and wave optics; and modern physics special relativity, atomic structure, quantum mechanics and radioactivity. This class is taught in the spring of the year Total Credits 5.00

#### PHR 105 Negotiations And Relationship Management

This course is designed to help students understand the principles, strategies and tactics of effective negotiation and relationship management. Students will learn to identify and assess negotiation variables, develop an effective negotiation plan and implement various strategies and tactics to ethically resolve conflicts and interpersonal differences. Total Credits 3.00

#### PIM 100 Introduction to Materials Management

This introductory course describes the basics of supply chain management, manufacturing planning and control systems, purchasing, and physical distribution. Topics of performance metrics ERP, supply chain approaches and implications, lean production fundamentals, and basic scheduling rules are discussed. Demand management, sales and operations planning, and master scheduling rules are examined in-depth. Total Credits 2.00

#### PIM 105 Basics of Supply Chain Management

This course describes the basics of supply chain management, manufacturing planning and control systems, purchasing, and physical distribution. This course will explain performance metrics, ERP, supply chain approaches and implications, lean production fundamentals, and basic scheduling rules. Topics of demand management, sales and operations planning, and master scheduling are examined in-depth. Total Credits 2.00

#### PIM 110 Master Planning of Resources

The topics of demand management, sales and operations planning, and master scheduling are examined in-depth. Both supply and demand planning for mid-to long-term independent demand are discussed. Priority planning and capacity planning issues are addressed. Total Credits 2.00

#### PIM 115 Detailed Scheduling & Planning

The course will include inventory management, material requirements planning, capacity requirements planning, procurement, and supplier relationships. Total Credits 2.00

#### PIM 120 Execution & Control of Operations

The principles, approaches, and techniques needed to schedule, control, measure, and evaluate the effectiveness of production operations are covered. A broad range of production operations are reviewed including project, batch, line, continuous, and remanufacturing environments. Total Credits 2.00

#### PIM 125 Strategic Management of Resources

This course covers strategic planning and implementation and describes how market requirements drive the resources and processes of an organization. This course also explores the relationship among existing and emerging processes and technologies to manufacturing strategy and supply chain related functions. Total Credits 2.00

#### PNA 101 IV Therapy for LPN's

Prepares LPNs to perform activities as defined in KAR 60-16-102(b). Presents knowledge, skills and competencies in the administration of intravenous fluid therapy, which will qualify LPNs to perform this procedure safely. Total Credits 3.00

#### PNA 105 Adult Learning Principles for Health Careers

This course will provide learners with basic adult learning principles utilized in teaching. The course is intended to meet the requirements from the Kansas Department for Aging & Disability Services for instructors to teach Nurse Aide courses, and would also be of benefit the novice in higher education. Total Credits 2.00

#### PNR 010 Nursing Recitation

Provides homework help and tutoring services and connects practical nurse students to a practical nurse instructor outside of general program class hours.

#### PNR 120 KSPN Foundations of Nursing

This course utilizes the nursing standards of practice based on principles of biology, psychosocial, spiritual and cultural to meet the needs of clients throughout the lifespan. Emphasis is placed on basic nursing skills, patient safety and therapeutic communication. Concepts and skills are enhanced in subsequent courses. Total Credits 4.00

#### PNR 121 KSPN Foundations of Nursing Clinical

This course explores the art and science of nursing in this clinical course. Emphasis is placed on the nursing process, cultural and spiritual awareness, communication, data collection, performance of basic nursing skills, and documentation. Principles of safe medication administration are introduced. Total Credits 2.00

#### PNR 122 KSPN Pharmacology

This course introduces the principles of pharmacology, drug classifications, and the effects of selected medications on the human body. The nursing process is used as the framework for ensuring safe and effective nursing care for clients across the lifespan. Total Credits 3.00

#### PNR 123 KSPN Medical Surgical Nursing I

This course focuses on the effect of disorders of selected systems throughout the lifespan and applies the nursing process in meeting basic needs. Health promotion and maintenance, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout. Total Credits 4.00

#### PNR 124 KSPN Medical Surgical Nursing I Clinical

Simulated and actual care situation of selected systems throughout the life span, utilizing acute and long-term care settings. An emphasis is placed on critical thinking and clinical decision-making skills. Total Credits 3.00

#### PNR 126 KSPN Medical Surgical Nursing II

This course focuses on the effect of disorders of selected systems throughout the lifespan using the nursing process in meeting basic needs. Prevention, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout. Total Credits 4.00

#### PNR 127 KSPN Medical Surgical Nursing II Clinical

This experience uses simulated and actual care situations of selected systems throughout the lifespan, utilizing acute and long-term care settings. An emphasis is placed on critical thinking and clinical decision-making skill development. Principles of leadership for the practical nurse will be implemented, as well as multi-task management skills for transition as a practical nurse. Total Credits 3.00

#### PNR 130 KSPN Maternal Child Nursing

This course focuses on pre- and post-natal maternal nursing care, as well as, the care of children from infancy to adolescence. Emphasis is given to normal reproduction and frequently occurring biological, cultural, spiritual and psychosocial needs of the childbearing and child-rearing family. Total Credits 2.00

#### PNR 131 KSPN Maternal Child Nursing Clinical

This clinical course applies concepts from Maternal Child I. Emphasis is placed on the nursing process and meeting the basic needs of the maternal child client. Total Credits 1.00

#### PNR 132 KSPN Gerontology Nursing

This course is designed to explore issues related to the aging adult using the nursing process as the organizing framework. Also discussed are the impact of ageism, alterations in physiological and psychosocial functioning, and the role of the practical nurse in caring for older adult clients. Total Credits 2.00

#### PNR 134 Role Development

This course expands the leadership and management skills necessary for personal and career growth and development. Assignment,

delegation, teamwork and conflict management are emphasized. Provides opportunities to acquire additional knowledge in areas of concern. Builds on areas of strength to improve chances of being successful on the National Council Licensure Examination (NCLEX-PN). Total Credits 2.00

#### PNR 135 KSPN Mental Health Nursing

This course explores basic concepts and trends in mental health nursing. Therapeutic modalities and client behavior management are discussed. Emphasis is placed on using the nursing process and meeting the basic human needs of the mental health client. Total Credits 2.00

#### PNR 136 Transition to Nursing

This course is designed to provide skills to enhance the success of the practical nurse student. It will include study skills, time management, social awareness skills, an introduction to critical thinking, APA format, review of PN policies and procedures, and learning in a hybrid/online format Total Credits 2.00

#### PNR 170 Healthcare Practice Management

This course explores the overall perspective of health service organizations and the associated managerial role. The student will be able to utilize practical building blocks for managerial growth. The student will discuss the involvement of future roles for healthcare providers and outside forces that impact management of a healthcare component. Total Credits 3.00

#### PNR 175 Healthcare Management Research

This course explores management issues, funding and actual provision of healthcare by various entities. The student will research and discuss the role of management in healthcare. The student will complete projects that expand on specific areas of individual interest in administration and management. Total Credits 4.00

#### PNR 180 Healthcare Issues

This course explores current issues in healthcare and the impact of those issues on society. The student will discuss specific pieces of legislation, regulatory initiatives, public concern issues, funding and actual provision of healthcare by various entities. The student will complete projects that expand on specific areas of individual interest. Total Credits 3.00

#### POL 101 American Government

A general study of the development, structure and functions of the American National Government. Topics to be studied include an introduction to government, principles of constitutionalism and federalism, political parties and political behavior, the Presidency, congress, the judiciary and the federal bureaucracy, Of specific emphasis is an analysis of decision-making in government, public participation and influence in government as well as a study of specific problems concerning the operation of the federal government.

Total Credits 3.00

#### PSS 100 Six Sigma Yellow Belt

Six Sigma Yellow Belt training introduces the fundamentals of Six Sigma to individual process owners and operators who can then act as team members on Six Sigma projects. Not only do these Yellow Belts gain the skills necessary to identify, monitor and control profit-eating practices in their own processes, but they are also prepared to feed that information to Green Belts and Black Belts working on larger system projects. Total Credits 1.00

#### PSS 101 Six Sigma Green Belt Methods

This course is designed to help the adult learner understand Six Sigma concepts and be able to apply their knowledge to a real problem. It also addresses the challenges of change management and data management. Total Credits 3.00

#### PSS 105 Six Sigma Green Belt Statistics

Students develop an in-depth understanding of how computers and statistical software are essential components in the business world and society in general for exploring data in depth, data simulation, screening data for errors, manipulating data, performing transformations, focus on the use of the computer and statistical software as a valuable productivity and data analysis tool. Total Credits 3.00

#### PSS 115 Six Sigma Black Belt Methods

The Six Sigma Black Belt Methods incorporates data and statistical analysis into a project based workflow that allows businesses to

make intelligent decisions about where and how to incorporate improvements. Total Credits 3.00

#### PSS 120 Six Sigma Black Belt Experimentation & Transfer Function

Students will learn how to manipulate data with statistical tools to transform it into valuable information (numeric and/or graphic). This data will be incorporated into a project. Total Credits 3.00

#### PST 110 Private Security Officer Training - Basic

The Basic Private Security Officer Training (Basic PSOT) course is a 45 hour course designed to train Security Officers in basic duties and requirements of a security officer in compliance with the Wichita City Code. Total Credits 3.00

#### PSY 101 General Psychology

A general introduction to the scientific study of behavior and mental processes to enable students to apply the knowledge they gain about the history of psychology, psychological perspectives, biological bases of behavior, sensation and perception, learning, cognition, intelligence, motivation, development, personality, psychological disorders and treatments of disorders, social psychology and critical thinking skills to enhance the quality of his/her life as he/she interacts with others and the environment. Total Credits 3.00

#### PSY 110 Child Psychology

This course is a scientific study of child behavior and development from the prenatal period through adolescence. This includes special emphasis in topics of physical development, cognitive and language development, social-emotional development and attachment, socialization, and practical applications of discipline and child rearing. Total Credits 3.00

#### PSY 120 Developmental Psychology

A study of individual development from conception through death to enable students to apply the knowledge they gain about the general areas of biological, physical, cognitive, social, emotional and personality development at each stage of life to enhance more meaningful interactions with others and better understanding of his/herself. Total Credits 3.00

#### REL 101 New Testament

This course is an introduction to history, literature and culture that gave rise to the New Testament from an objective and analytical approach. Total Credits 3.00

#### ROB 100 Introduction to Robotics

This course explores basic robotic concepts. Studies robots in typical application environments. Topics include: robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation and robot controllers, controller architecture in a system, robotic language programming, and human interface issues. Total Credits 3.00

#### ROB 101 Manufacturing Control & Work Cell Interfacing

This course studies open and closed loop controls and cell level interfacing. Emphasizes human factors related to automated systems. Topics include: process control; sensors and interfacing; fluid pressure and level measurement; fluid flow instrument; instruments for temperature measurement; instruments for mechanical measurement; pneumatic controls; cell level interfacing; automatic control systems application; and human interface issues of operator training, acceptance, and safety. Total Credits 2.00

#### ROB 102 Work Cell Design Laboratory

This course allows students to work in instructor-supervised teams, assembling and operating an automated production system's cell. Students will select equipment, write specifications, design fixtures and interconnects, integrate systems/provide interfaces, and operate the assigned system. Topics include: work cell requirement analysis, work cell specifications, work cell assembly, work cell programming, work cell debugging/troubleshooting, and prototype or demonstration work cell operation. Total Credits 1.00

#### ROB 103 Applied Robotics Lab I

In this course students will learn basic robotic applications and devices utilized in automated systems. Using hands on step by step approach students will program different types of robots and interface the robots and controllers within parameters defined by the instructor and the application. Total Credits 3.00



#### ROB 104 Robotics Simulation

This course provides the student an introduction to robotic simulation using industry current software. Students will learn to build computer simulated models of robotic work cells. Total Credits 2.00

#### ROB 106 Robotics Controller Maintenance

This course will provide the student with basic skills and techniques used in the maintenance and repair of robotic/automated equipment. Total Credits 3.00

#### ROB 110 Applied Robotics Lab II

In this course students will expand on their experiences from Applied Robotics Lab I. Students will further enhance the robotic applications and integration of PLC's and PC's to robot controllers. Total Credits 3

#### ROB 111 Advanced Robot Controller Programming

This course provides an opportunity for students to adapt robotic systems to specific manufacturing applications. Students will learn the file manipulation required to understand and program a complete robotic application. Total Credits 2.00

#### ROB 125 Advanced Industrial Workcell Programming

This course offers advanced skills and knowledge that are required to integrate, operate, program, troubleshoot, and maintain typical industrial work-cells that consists of robot controllers, programmable logic controllers (PLCs), and other support mechanisms. The course contents are based on the lower level robotics and electromechanical courses offered by the WATC robotics program. Total Credits 3.00

#### SAF 101 Safety Orientation/OSHA 10

This course provides a fundamental understanding of OSHA Safety for the Construction Industry. Students who successfully complete the course will be issued a Department of Labor (DOL) 10 hour card. Total Credits 1.00

#### SGT 101 Introduction to Surgical Technology

This course introduces the role and functions of proper documentation, post and preoperative case management, professional and self-management, professionalism, and work place management, scope of practice, patient care standards, death and dying issues, legal and ethics dilemma, risk management and safety, basic computer skills and electricity concepts. Total Credits 4.00

#### SGT 107 Pharmacology for Surgical Technology

This course will provide general pharmacologic information, including how medications are measured, what kind of medications are used, what laws pertain to them, how they are labeled, how they are administered to the surgical patient, and an understanding of preoperative and intraoperative anesthesia as it relates to routine and emergency situations. Total Credits 3.00

#### SGT 115 Surgical Procedures I

Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating room environment. Total Credits 4.00

#### SGT 119 Surgical Technology - Clinical Experience I

Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating room environment. Total Credits 4.00

#### SGT 120 Principles & Practices in Surgical Technology

Presents concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course. Total Credits 5.00

#### SGT 125 Surgical Procedures II

Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory

experience to develop critical skills that are required to function in the operating room environment. Total Credits 5.00

#### SGT 129 Surgical Technology - Clinical Experience II

Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24-27 hours per week. Emphasis is placed on basic and intermediate surgical interventions. Includes rotations through endoscopy and preoperative holding units Total Credits 5.00

#### SGT 130 Surgical Technology - Clinical Experience III

Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24-27 hours per week. Emphasis is placed on basic and intermediate surgical interventions. Includes rotations through endoscopy and preoperative holding units Total Credits 4.00

#### SGT 140 Principles & Practices in Surgical Technology Lab

Students will demonstrate concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course. Total Credits 3.00

#### SGT 145 Surgical Technologist Exam Review

This course provides a comprehensive review of surgical technology concepts and practical preparation for the national certification examination Total Credits 1.00

#### SOC 101 Principles of Sociology

An introductory study of human society to acquaint students with the influence and patterns of individual and group interaction by exploring the development, characteristics, and functioning of human groups; the relationships between groups, and group influences on individual behavior. Total Credits 3.00

#### SOC 115 Social Problems

This course will examine the major problems of contemporary society, the social causes, potential solutions, and impact on public policy utilizing sociological theories and perspectives. Students will acquire an understanding of unique issues such as, inequality, crime, deviance, violence, substance abuse, and problems within socialization institutions. Total Credits 3.00

#### SPH 101 Public Speaking

Covers fundamental basics to all good private and public speaking experiences and elements in voice production and improvement, bodily movement, confidence, poise and understanding of all types of public speeches. Required of all transfer curricula. Total Credits 3.00

#### SPH 111 Interpersonal Communication

Improves individual communication skills. By understanding the elements of effective communication, students are able to create environments that bring out the best in themselves and others. In addition, students learn how to better turn ideas and feelings into words, how to listen more effectively, respond more appropriately to what others have said and, most important of all, how to maintain and develop good interpersonal relationships with their families, their peers and fellow workers. Emphasis is placed on small-group activities, interviewing skills and verbal and non-verbal communication. Total Credits 3.00

#### TAC 131 Structural A&D Repair 1

Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: identify measuring procedures; analyze the basic structural damage conditions; identify the safety requirements pertaining to structural damage repair; analyze frame repair methods; analyze unibody inspection and measurement and identify procedures of welding for structural repair. Total Credits 2.00

#### TAC 132 Structural A&D Repair 2

Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; analyze frame inspection and repair procedures; determine direct and indirect damage for structural repair; analyze unibody inspection, measurement, and repair procedures; perform welding techniques for structural repair; and identify cutting procedures for structural repair. Total Credits 2.00

#### TAC 133 Structural A&D Repair 3



Through a variety of classroom and/or shop learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; perform welding and cutting techniques for structural repair; diagnose unibody direct and indirect damage; apply unibody inspection and measurement procedures; apply unibody repair procedures; apply frame inspection and measurement procedures; apply frame repair procedures; and remove fixed glass. Total Credits 3.00

#### TAC 134 Structural A&D Repair 4

Through a variety of classroom and lab/shop learning and assessment activities, students in this course will: apply safety requirements pertaining to structural damage repair; perform advanced welding and cutting techniques for structural repair; perform inspection and measurement of unibody for structural repair; repair unibody direct and indirect damage; perform frame inspection and measurement procedures; repair frame to industry standards; and remove and install fixed glass. Total Credits 3.00

#### TAC 141 Paint & Refinishing 1

Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: identify safety and personal health hazards according to OSHA guidelines and the 'Right to Know' law; determine the different types of substrates and sanding materials relevant to autobody surface preparation; identify the process to clean and prepare a substrate for paint; distinguish between the properties, uses and manufacturer specifications of metal treatments and primers; distinguish among the various types of spray guns and equipment; explore various paint codes and specifications for use; Identify the various paint systems; explore the types of paint defects; distinguish between damage and non-damage related corrosion; and identify final detail procedures.

Total Credits 3.00

#### TAC 142 Paint & Refinishing 2

Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: select proper personal protective equipment; perform proper shop operations according to OSHA Guidelines; remove paint coatings; apply corrosion resistant coatings; demonstrate proper spray gun operation and cleaning procedures; select proper painting and substrate materials for projects; analyze paint defects, causes and cures; repair paint defects; measure paint mil thickness; and determine final detail procedures for given projects.

Total Credits 3.00

#### TAC 143 Paint & Refinishing 3

Through a variety of learning and/or shop/lab learning and assessment activities, students in this course will: identify safety and personal health hazards according to OSHA guidelines and the 'Right to Know' law; determine the different types of substrates and sanding materials relevant to autobody surface preparation; identify the process to clean and prepare a substrate for paint; distinguish between the properties, uses and manufacturer specifications of metal treatments and primers; distinguish among the various types of spray guns and equipment; explore various paint codes and specifications for use; identify the various paint systems; explore the types of paint defects; distinguish between damage and non-damage related corrosion; and identify final detail procedures.

Total Credits 3.00

#### TAC 144 Paint & Refinishing 4

Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: apply exemplary safety procedures in all areas of auto body painting and refinishing; perform proper cleaning procedures for a refinish; prepare adjacent panels for blending; prepare plastic panels for refinishing; protect all non-finished areas of vehicle; operate high and low volume/pressure spray gun operations for painting and refinishing; perform all paint system applications on an automobile; apply appropriate paint color matching and mixing procedures; tint color using formula to achieve a blendable match; explore the causes, effects and correction of buffing-related imperfections; explore the causes, effects and correction of pigment flotation; measure mil thickness; apply decals, transfers, tapes, woodgrains, pinstripes to an automobile; apply buffing and polishing techniques to remove defects; apply cleaning techniques to automobile interior, exterior, glass and body openings; and remove overspray. Total Credits 4.00

#### TAC 151 Non-structural A&D Repair 1

Through a variety of classroom and/or shop/lab learning and assessment activities, students in this course will: explore the components of safety pertaining to auto collision and repair; explore the parts and construction of vehicles; explore opportunities in the auto collision industry; identify metal straightening techniques; identify the application and use of body fillers; demonstrate proper use, set-up and storage of welding equipment; distinguish between weldable and non-weldable materials; demonstrate

fundamental industry standard recommended welds; identify plastics and adhesives used in automotive industry; explain the general purpose of damage, estimation and repair orders; explore the processes required for outer body panel repairs, replacements and adjustments; and demonstrate fundamental cutting procedures. Total Credits 4.00

#### TAC 152 Non-structural A&D Repair 2

Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: identify trim and hardware to be protected; examine what to consider when working with movable glass; perform outer body panel repairs; Perform outer body replacements and adjustments; Perform metal straightening techniques; Perform body filling techniques; Perform metal finishing techniques; Use welding procedures in non-structural damage repair; Distinguish between mechanical and electrical components; apply safety standards for the collision repair industry; use cutting procedures in non-structural damage repair; and determine procedures necessary for working with plastics and adhesives. Total Credits 4.00

#### TAC 153 Non-structural A&D Repair 3

Through a variety of classroom and/or lab/shop learning and assessment activities, students in this course will: remove and install trim and hardware; determine process and procedures necessary for movable glass repair; repair outer body panel; replace and adjust outer body panels; remove and install mechanical and electrical components; demonstrate safety protocol appropriate for the auto repair setting; perform intermediate welding skills on non-structural damage repairs; and perform plastic and adhesive repairs. Total Credits 4.00

#### TAC 154 Non-structural A&D Repair 4

Through a variety of classroom and shop/lab learning and assessment activities, students in this course will: remove trim and hardware; install trim and hardware; repair movable glass; protect adjacent body panels; repair outer body panel; replace outer body panels; adjust outer body panels; replace mechanical and electrical components; demonstrate safety protocol appropriate for the auto repair setting, perform welding skills on nonstructural damage repairs; and perform plastic and adhesive repairs. Total Credits 5.00

#### TAC 160 Mechanical & Electrical

Through classroom and/or lab/shop learning and assessment activities, in this course students will: determine how to diagnose steering and suspension; diagnose electrical concerns; complete headlamp and fog/driving lamp assemblies and repairs; demonstrate self-grounding procedures for handling electronic components; determine diagnosis, inspection and service needs for brake system hydraulic components; examine components of heating and air conditioning systems; determine the inspection, service and repair needs for collision damaged cooling system components; distinguish between the under car components and systems; and determine the diagnosis, inspection and service requirements of active and passive restraint systems. Total Credits 3.00

#### TAC 161 Mechanical & Electrical 2

Through classroom and/or lab/shop learning and assessment activities, in this advanced course students will: determine how to diagnose advanced steering and suspension; diagnose electrical concerns; complete headlamp and fog/driving lamp assemblies and repairs; demonstrate self-grounding procedures for handling electronic components; determine diagnosis, inspection and service needs for brake system hydraulic components; examine components of heating and air conditioning systems; determine the inspection, service and repair needs for collision damaged cooling system components; distinguish between the under car components and systems; and determine the diagnosis, inspection and service requirements of active and passive restraint systems. Total Credits 3.00

#### TAS 121 Engine Repair

This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the theory and operation of internal combustion engine; demonstrate the ability to remove an automotive engine; demonstrate the ability to install an automotive engine; demonstrate the basic ability to inspect and repair cylinder head, valve trains and timing defects; demonstrate the ability to disassemble short block; demonstrate the ability to inspect short block; demonstrate the ability to repair short block; demonstrate the ability to reassemble short block; demonstrate the basic ability to inspect and repair engine lubrication; demonstrate the basic ability to inspect and repair engine cooling systems; inspect a cylinder head and valve train; repair a cylinder head and valve train; perform advanced level engine diagnosis. Total Credits 4.00

#### TAS 124 Electrical I

In this course students will: Complete service work orders; describe the relationship between voltage, ohms and amperage; perform basic electrical circuit repairs; identify electrical system faults; identify basic wiring diagram symbols, components, and legend

information; perform basic electrical circuit measurements using a DVOM; describe basic circuit characteristics of series, parallel and series parallel circuits through a variety of classroom and shop learning and assessment activities. Total Credits 3.00

#### TAS 125 Electrical II

In this course students will: Perform battery diagnosis; perform battery service; perform starting system diagnosis; perform starting system repair; perform charging system diagnosis; perform charging system repair; identify current flow on starting and charging system diagrams through a variety of learning and assessment activities. Total Credits 5.00

#### TAS 126 Manual Transmission/Transaxle & Drive Train

This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: determine the general drive train diagnosis procedures; explore the fundamentals of clutch operation; explore the fundamentals of clutch removal, inspection and repair; determine the powerflow of the manual transmission and transaxle; perform fundamental manual transmission and transaxle inspection and repair according to service specifications; perform fundamental differential inspection and repair according to service specifications; perform fundamental diagnosis, inspection and replacement of drive axle shafts and supporting components; perform fundamental diagnosis, inspection, adjustment and repair of four- and all-wheel drive components; diagnose drive train issues; diagnose clutch concerns; perform the removal, inspection and/or repair of the clutch and its components; conduct a transmission and transaxle inspection and repair according to service specifications; conduct a differential inspection and repair according to service specifications; conduct the diagnosis, inspection and replacement of drive axle shafts and supporting components; conduct the diagnosis, inspection, adjustment and repair of four- and all-wheel drive components. Total Credits 4.00

#### TAS 127 Automatic Transmission Repair

This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the concept of theory and operation of automatic transmissions/transaxles; perform maintenance on an automatic transmission/transaxle; perform service on an automatic transmission/transaxle; diagnose automatic transmission/transaxles; inspect automatic transmission/transaxles; remove and reinstall automatic transmission; remove and reinstall automatic transaxles; disassemble automatic transmission and components; disassemble automatic transaxles and components; inspect automatic transmission components; inspect automatic transaxles and components; repair automatic transmission and components; repair automatic transaxles and components; reassemble automatic transmission and components; reassemble automatic transaxles and components. Total Credits 4.00

#### TAS 128 Heating & Air Conditioning

This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the fundamentals of automotive HVAC operations and environmental concerns, identify the appropriate refrigerant recovery and recycling guidelines; service refrigerant, recycling and handling systems; document fundamental heating and air conditioning system concerns; perform fundamental diagnostics of A/C systems; perform fundamental diagnostics of refrigeration systems components; perform fundamental repairs of refrigeration systems components; perform fundamental diagnostics of heating, ventilation, and engine cooling systems; perform fundamental repairs of heating, ventilation, and engine cooling systems; perform fundamental diagnostics of operating systems and related controls; perform fundamental repairs of operating systems and related controls; perform complex diagnostics of A/C Systems; document complex heating and air conditioning system concerns; perform complex diagnostics of refrigeration system components; perform complex repairs of refrigeration system components; perform complex diagnostics of heating, ventilation, and engine cooling systems. Total Credits 4.00

#### TAS 131 Engine Performance I

In this learning plan students will: complete work order and check history; identify engine mechanical integrity; explore the fundamentals of fuel system theory; identify fuel system concerns; explore the fundamentals of ignition theory; identify ignition system concerns; identify induction system concerns; identify exhaust system concerns; identify engine mechanical integrity through a variety of learning and assessment activities. Total Credits 3.00

#### TAS 132 Engine Performance II

This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: analyze engine mechanical integrity; analyze fuel system concerns; analyze ignition system concerns; analyze induction system concerns;

analyze exhaust system concerns; service fuel system concerns; repair fuel system concerns; service ignition system concerns; repair ignition system concerns; service induction system concerns; service exhaust system concerns; repair induction system concerns; repair exhaust system concerns. Total Credits 5.00

#### TAS 133 Brakes I

In this course students will Perform system pressure and travel calculations utilizing Pascal's Law; Complete service work orders; Determine appropriate system pressure tests utilizing service specifications; Determine brake system concerns and necessary actions; Diagnose poor stopping, pulling or dragging concerns caused by malfunctions in the hydraulic system; Determine how to inspect, fabricate and/or replace brake lines and hoses; Determine the service specifications pertaining to the removal, cleaning and refinishing procedures on brake drums; Apply drum brake repair and replacement procedures; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns on disc-brake vehicles; Determine disc brake repair and replacement procedures; Determine how to caliper piston retractions; Diagnose wheel bearing noise, wheel shimmy and vibration concerns; Determine how to remove, inspect and replace bearing and hub assemblies through a variety of classroom and lab/shop learning and assessment activities. Total Credits 3.00

#### TAS 134 Brakes II

In this course students will: Determine necessary brake system correction; Conduct system pressure tests utilizing service specifications; Perform diagnosis and correction for poor stopping, pulling or dragging concerns caused by malfunctions in the hydraulic system; Conduct inspection, fabrication and/or replacement of brake lines and hoses; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns; Perform service specifications pertaining to the removal, cleaning and refinishing procedures on brake drums; Perform drum brake repair and replacement procedures; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns; Perform disc brake repair and replacement procedures; Machine rotor according to service specifications; Perform caliper piston retraction where applicable; Inspect and test power assist systems; Determine necessary action on wheel bearing noise, wheel shimmy and vibration concern diagnoses; Perform the removal, inspection and replacement of bearing and hub assemblies through a variety of classroom and lab/shop learning and assessment activities. Total Credits 1.00

#### TAS 135 Automotive Computer Systems

In this course students will: Perform automotive computer system diagnosis; perform vehicle communication diagnosis; perform engine computer system diagnosis; transmission computer diagnosis; perform air bag system diagnosis; perform heating and air conditioning electronic diagnosing; perform electronic anti-lock brake/traction/stability diagnosis; perform driver assistance system diagnosis; identify computer systems through a variety of learning and assessment activities. Total Credits 3.00

#### TAS 136 Suspension and Steering I

In this course students will: document fundamental suspension system concerns; perform fundamental diagnostics of steering systems; perform fundamental repairs of steering systems; perform fundamental diagnostics of suspension systems; perform fundamental repairs of suspension systems; determine the need for wheel alignment and adjustment; perform fundamental diagnostics of wheel and tire systems; perform fundamental repairs of wheel and tire systems through a variety of learning and assessment activities. Total Credits 3.00

#### TAS 137 Suspension and Steering II

In this, course students will: gain knowledge in the use of alignment geometry and computerized alignment equipment to diagnose and repair steering suspension problems and to verify that a vehicle's suspension and steering components are within manufacturer's specifications. In addition, removing and replacing steering and suspension components according to manufacturer's specifications, inspecting, servicing, and repairing wheel and tire assemblies for optimum performance. Total Credits 2.00

#### THR 100 Theatre Appreciation

Upon completion of this class, the student will know the origin of theater, as well as the major historical periods of theatrical development including Greek, Medieval and Shakespearian. Students will acquire a basic understanding of different aspects of theater and play production, including an awareness of technical theater, designing for the stage, dramatic literature and structure. The student will become familiar with what constitutes quality acting and playwriting. Total Credits 3.00

#### VET 101 Introduction to Veterinary Technology/Principles of Animal Science

This course will introduce learners to the field of veterinary medicine, focusing on the specific roles and responsibilities of the veterinary technician. Learners will be introduced to the historical aspects of veterinary medicine and the duties of the technician

including ethics, common animal breeds, safety, and first aid. This course also introduces the basic principles of nursing care, including clear and compassionate communication with owners. This course also gives a basic overview of medical terminology, anatomy/physiology and pathology. It will also introduce the basic principles of animal science, specifically as they relate to the role of a veterinary technician. Total Credits 3.00

#### VET 105 Veterinary Business Procedures/Office Management

This course will introduce learners to the expectations of veterinary technicians including: veterinary medical records, admitting procedures, and record maintenance via hands on experiences. It will cover basic bookkeeping skills, inventory control measures, marketing, scheduling, interpersonal communication, phone etiquette, professionalism, working with difficult owners/animals, and the use of computer software specifically designed for use in veterinary clinics and hospitals. Total Credits 2.00

#### VET 110 Veterinary Anatomy and Physiology

This course will introduce veterinary medical terminology, including prefix, suffix, root words, common medical terms, and a basic knowledge of word construction. This course will relate the relevant medical terminology to the structure and function of animal bodies and the anatomical/physiological differences between selected species. Learners will examine body organization, cellular biology, histology, and gross anatomy/physiology of the integumentary, skeletal, muscular, endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, urinary, and nervous systems. Lab will include the use of skeletons, models, virtual anatomy tools, and dissection of cadavers. Total Credits 4.00

#### VET 115 Veterinary Clinical Pathology I

This course is the first of a three course series and will introduce basic pathological processes and prepare the learner for the next course in the sequence. This course builds upon veterinary pharmacology and introduces clinical microbiology and cytology as it relates to veterinary technology and animal pathology. It covers the basic principles of microbial classification, growth, and pathogenicity as well as various laboratory methods used in identification of microorganisms as they relate to pathology and parasitology in animals. Total Credits 3.00

#### VET 120 Veterinary Nursing Procedures I

This course is the first of a two course series and will explore animal nutrition, patient assessment, animal therapeutics, animal husbandry, animal restraint, animal behavior and common dental problems and dental prophylaxis. Learners will get hands on experience in the collection of various diagnostic samples and preparation for collection. Total Credits 3.00

#### VET 130 Veterinary Emergency, Critical Medicine and Hospital Procedures

This course will cover emergency and critical care nursing skills and hospital procedures will focus on companion animal care, but will include large animal, laboratory animals to the veterinary technician. Total Credits 2.00

#### VET 140 Veterinary Pharmacology

This course will explore pharmacological principles, including pharmacokinetics drug classes, indications, dosage, preparation, mechanisms of action, and side effects of drugs used in veterinary medicine. Total Credits 2.00

#### VET 215 Veterinary Clinical Pathology II

This course is the second of a three course series and will continue to build upon pathological processes and prepare the learner for the next course in the sequence. This course will explore the life cycles, modes of transmissions, and pathological consequences associated with common parasites of animals. Laboratory techniques of hematology, serum chemistry, urinalysis and fecal sample collection will be covered. This course also explores special commercial laboratory test procedures and pathological processes. Lab will introduce diagnostic procedures and cover identification of parasites and various pathologies using prepared slides and collected specimens. Additionally, postmortem examination procedures and proper submission of tissue samples for pathologic diagnosis are introduced. Total Credits 3.00

#### VET 220 Veterinary Nursing Procedures II

This course is the second of a two course series and will continue to explore and cover advanced techniques in animal nutrition, patient assessment, animal therapeutics, animal husbandry, animal restraint, animal behavior and common dental problems and dental prophylaxis focused on companion animals. Learners will get hands on experience in the collection of various diagnostic samples and preparation for collection with a focus on companion animals. Total Credits 2.00

#### VET 230 Veterinary Diagnostic Imaging with Lab



Covers the physics of x-ray photon production, radiation safety, quality control measures, federal and state radiation regulations, film processing, radiographic technique evaluation, positioning of animals, and proper identification and storage of radiographic images. Covers the operation and use of fixed, portable, and dental x-ray machines; the care and development of films; radiographic positioning of animals; and evaluation of radiographic technique. Explores additional diagnostic imaging modalities, such as ultrasound, MRI, CT, and endoscopy. Total Credits 3.00

#### VET 240 Veterinary Anesthesia and Surgical Assisting

This course will explore the principles and practices of veterinary anesthesia and surgical assistance including pre-operative, operative, and post-operative protocols for routine surgical procedures. Learners will be provided with hands-on experience in anesthesiology, surgical patient preparation and surgical assistance. Total Credits 3.00

#### VET 250 Veterinary Nursing: Large Animal Disease and Medical Care

This course will explore common large animal breeds (ruminant, equine, swine, and chickens). It will introduce techniques necessary for the provision of nursing care to large animals, including restraint, husbandry, behavior, physical examination, medication administration, diagnostic sample collection, grooming, bandaging, nutrition, and vaccination. It will also cover preventive medicine and diseases of large animals including the public health significance of relevant large animal diseases and examine the role of the veterinary technician in performing diagnostics, nursing care, and client education. Total Credits 2.00

#### VET 260 Veterinary Clinical Pathology III

This course is the third of a three course series and will bring together knowledge of pathological processes gained from the first two courses in the sequence and relate them to every day practice in veterinary medicine with an emphasis on companion animal practice. This course will continue to explore the life cycles, modes of transmissions, and pathological consequences associated with common parasites of animals. It will also continue discussion of microbiology and cytology as they relate to the veterinary technician. It will explore physical injuries, resulting pathologies and treatments. Additionally, this course will explore environmental and nutritional concepts as they relate to various pathologies with an emphasis in this relation to small/companion animals. Lastly, this course will reinforce the issue of zoonosis and safety on the job with The Occupational Safety and Health Administration (OSHA) protocols. Total Credits 3.00

#### VET 265 Veterinary Nursing Procedures: Avian, Exotic and Lab Animals Disease and Medical Care

Introduces basic techniques necessary for the provision of nursing care to small animals, including small animal restraint, husbandry, behavior, physical examination, medication administration, vaccination, and grooming. Includes kennel duty experience in the care of a variety of companion animals. Provides an overview of the anatomy and physiology, the care and handling, and diseases of common laboratory and exotic small animals. Covers the principles of lab animal use in research with an emphasis on animal welfare. This course also covers preventive medicine and diseases of small animals including the public health significance of relevant small animal diseases. Examines the role of the veterinary technician in performing diagnostics, nursing care, and client education. Reinforce staff/owner relationships with role playing scenarios. Total Credits 2.00

#### VET 270 Veterinary Technology Seminar

This course will serve to reinforce knowledge and concepts covered in the other courses in the program. This course will prepare students for the Veterinary Technician National Exam (VTNE) and help them to become ready to work in the field of veterinary technology. Total Credits 1.00

#### VET 275 Veterinary Clinical Practicum

This course provides hands-on experience working with actual animal cases in a clinical veterinary setting. This course will expand student knowledge and build proficiency of acquired skills through task-specific exercises learned prior in the curriculum. It also links prior on-campus coursework with off-campus learning experiences providing development of increased proficiency and honing of essential skills learned in the formal instructional setting which are necessary for a career as a veterinary technician. Students will be matched to practicum sites at the discretion of the instructor. Each student is expected to attend a minimum of 240 hours at extern sites. These hours can be completed in three 80 hour rotations or one 240-hour rotation with instructor and Dean approval. The practicum will be monitored and reviewed by the program director or the director's appointee. Total Credits 6.00

# Addendum

## Course Change – PDV 105 (Effective Fall 2016)

New Title: Blueprint for Personal Success

New Course Description:

The professional world is full of challenging situations, including conflicting personalities, miscommunication, and cultural differences. In this course, students will learn about typical workplace etiquette protocols, communication standards, and cultural awareness strategies in order to navigate these common obstacles. This course will prepare students by educating them on the importance of establishing and maintaining their professional image in the workplace. Whether students are working on the manufacturing floor, in a medical facility or in a professional office setting practicing professional etiquette will help ensure that their occupational environment is positive and productive. Students will integrate internal attitudes with external behaviors so that their personal attributes reflect the expectations of their future employers. The course provides a study of human relations and professional development in today's rapidly changing world. The course prepares students for living and working in a complex society through a focus on professionalism, work ethic, teamwork (collaboration) and oral communication. Topics include: Goal Setting, Entry Level Leadership, Communication, Teamwork and Diversity, Career Management, Lifestyle Design, and Disruption in Industry.

2.000 Credit hours

30.000 Lecture hours

**This change replaces all instances of PDV 105, Global Professional Standards, throughout the 2016-2017 Catalog.**

Airframe: "All Airframe TC program students are required to purchase tool kits via WATC. Tool price totals \$981.22. Tools may not be purchased outside of WATC."

Power plant: "All Powerplant TC program students are required to purchase tool kits via WATC. Tool price totals \$1,017.57. Tools may not be purchased outside of WATC."

Aviation Maintenance Technology: "All AMT program students are required to purchase tool kits via WATC. This purchase will be made in the Airframe 2 (\$981.22) and Powerplant 2 (\$1,017.57) semesters of the program. For a total of \$1,998.71. Tools may not be purchased outside of WATC"

### **Skills USA Fee**

All students enrolled in the following programs are assessed a mandatory fee for Skills USA:

Automotive Service Technology

Automotive Collision Repair

Climate and Energy Control Technologies (HVAC)

Aviation Maintenance Technology

Machining Technology

Carpentry

Architectural Design Technology

Engineering Design Technology

Welding

Police Science