



WATC

WICHITA AREA
TECHNICAL COLLEGE

**COLLEGE CATALOG
2011-2012**

Table of Contents

Mission, Vision & Values	3
Governance and Structure	4
Accreditation	4
Nondiscrimination	4
Educational Programs	5
Programs of Study	7
Administrative Office Technology	8
Advanced Aerostructures	9
Aerospace Quality Control	10
Aerospace Coatings & Paint	12
Air Conditioning Technology	14
Architectural Design Technology	18
Automotive Service Technology	23
Automotive Collision	27
Aviation Maintenance Technology	31
Avionics Technology	42
Business Administration	48
Certified Medication Aide	60
Certified Nurse Aide	62
Composite Technology	64
Dental Assisting	68
Engineering Design Technology	72
Electromechanical Systems	76
Entrepreneurship	80
Home Health Aide	83
Interior Design	84
LEAN	90
Machining Technology	91
Manufacturing Engineering Technology	95
Mechanical Design Technology	107
Medical Assisting	111
Nondestructive Testing	116
Nursing	122
Phlebotomy	124
Robotics	125
Surgical Technology	129
Welding	133
Course Descriptions	137
Policies and Procedures	186

Mission, Vision and Values

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

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 Post-secondary 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
30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
Phone: 800.621.7440 / 312.263.0456
Fax: 312.263.7462
www.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, 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
- Composite Technology
- Dental Assistant
- Electromechanical Systems
- Engineering Design Technology
- Interior Design
- Machining Technology
- Manufacturing Engineering Technology
- Medical Assistant
- Nondestructive Testing
- Robotics
- Surgical Technology
- 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.



WATC

WICHITA AREA
TECHNICAL COLLEGE

PROGRAMS OF STUDY

Administrative Office Technology (Online) 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Administrative Office Technology associate of applied science (AAS) degree program prepares students for a variety of positions in current business, administrative and professional fields. Degree holders prove competence in all aspects of a modern office environment as well as critical thinking skills necessary to prove agility in today's fast paced business world. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credit hours of core education courses in five areas of study, including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,150.00
Fees	1,820.00
Lab Fees	50.00
Online Fees	1,200.00
TOTAL	\$7,220.00

*Cost does not include books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 65 Credits

Required General Education Courses

ACC	105	Fundamentals of Accounting	3
ART	100	Art Appreciation	3
BUS	104	Introduction to Business	3
BUS	130	Personal Finance	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
ENG	120	Composition II	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking	3

Required Technical Courses

BUS	106	Office Procedures	3
BUS	121	Business Communications	3
BUS	125	Business Law	3
CED	107	Database & File Management	3
CED	108	Word Processing	3
OPM	115	Introduction to Projection Management	3

Natural Science (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total 65

Accreditations/Affiliations

The Administrative Office Technology program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center
4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus
301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Aerostructures Technicians are employed in the aircraft manufacturing and service industry. They are able to work with various sheet metal materials assembling, fastening and fitting pieces together—the core skills required to qualify for a wide range of career opportunities.

Program Features

The Advanced Aerostructures Technician program provides students the skills and knowledge to succeed in the aircraft manufacturing and service industry. Students receive classroom instruction and shop demonstration. Instruction includes the fundamentals of blueprint reading, precision measurement, communication skills, math skills, business operations and environmental health and safety. Additional instruction includes the fundamentals of assembly, meeting manufacturing standards, use of common aircraft sheet metal tools and sealant application. Students learn how to identify fasteners, install and remove fasteners, assemble sheet metal components, identify and maintain proper skin quality and curved surface techniques.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,528.00
Fees	392.00
Lab Fees	847.00
Total	\$2,767.00

*Cost does not include online fees, books or tools

Certificate of Completion			14 Credits
Required Technical Courses			
AER	132	Aerostructures Assembly	4
AER	133	Advanced Aerostructures	2
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	106	Aerospace Blueprint Reading	2
EMP	100	Global Professional Standards	2
Total			14

Accreditations/Affiliations

The Advanced Aerostructures Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Advanced Aerostructures	
\$42,140	\$20.26

Aerospace Quality Control 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Program Description

The Aerospace Quality Control Technician program is a sequence of courses designed to prepare students for careers in the field of aerospace quality control. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in quality control processes including selection measurement, testing and test documentation of products manufactured in the aerospace industry, blueprint reading and drafting techniques.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$2,972.00
Fees	784.00
Lab Fees	175.00
Total	\$3,931.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

28 Credits

Required Technical Courses

AER	150	Assembly Overview I	3
AER	151	Electrical Overview	2
AER	153	Aerospace Blueprint Reading for Inspectors	2
AER	159	Aircraft Familiarization for Inspectors	3
AER	160	Aircraft Familiarization Lab for Inspectors	2
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	103	Geometric Dimensioning & Tolerancing	1
AVC	106	Aerospace Blueprint Reading	2
EMP	100	Global Professional Standards	2

Required General Education Courses

CED	101	Computer Essentials	2
SPH	101	Public Speaking	3
		OR	
SPE	111	Interpersonal Communications	3

Electives (minimum of 2 credits required)

Technical Total

28

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates * Placement for all employed in the military or continuing their education

Aerospace Quality Control	
N/A	N/A

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aerospace Quality Control	
N/A	N/A

Aerospace Coatings & Paint Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Today's airplanes are highly complex machines with parts that must function within extreme tolerances for them to operate safely. To keep aircraft in peak operating condition, aircraft and avionics equipment mechanics and service technicians perform scheduled maintenance, make repairs, and complete inspections required by the FAA.

Program Features

Aerospace Coatings & Paint Technology associate degree program is a sequence of courses designed to produce an aerospace technician with multiple skill sets, a well rounded understanding of the aerospace industry and the depth and breadth of knowledge which comes from general education courses. This program provides a broad based understanding of coating and paint processes within the aerospace industry.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,696.00
Fees	1,820.00
Lab Fees	2,642.00
Total	\$11,158.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Aerospace Coatings and Paint Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 65 Credits

Required Technical Courses

ACP	100	Introduction to Coatings & Paint Technology	3
ACP	101	Surface Preparation & Coatings	4
ACP	102	Performance & Durability of Coatings	3
ACP	103	Color Technology	3
ACP	104	Specialized Coating Processes	3
ACP	105	Specialized Detailing	3
ACP	106	Aerospace Coatings & Materials	3
ACP	107	Aerospace Program Management	3
ACP	110	Integrated Assembly Capstone Project	4
		OR	
ACP	111	Technical Co-Operative Project	
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	103	Geometric Dimensioning & Tolerance	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	106	Aerospace Blueprint Reading	2
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
EMP	100	Global Professional Standards	2

Required General Education Courses

CED	115	Computer Applications	3
CHM	110	General Chemistry	5
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	

Total 65

Aerospace Coatings & Paint Technology 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400

Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Today's airplanes are highly complex machines with parts that must function within extreme tolerances for them to operate safely. To keep aircraft in peak operating condition, aircraft and avionics equipment mechanics and service technicians perform scheduled maintenance, make repairs, and complete inspections required by the FAA.

Program Features

Aerospace Coatings & Paint Technology associate degree program is a sequence of courses designed to produce an aerospace technician with multiple skill sets, a well rounded understanding of the aerospace industry and the depth and breadth of knowledge which comes from general education courses. This program provides a broad based understanding of coating and paint processes within the aerospace industry.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,580.00
Fees	1,316.00
Lab Fees	2,592.00
Total	\$9,488.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Aerospace Coatings and Paint Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

47 Credits

Required Technical Courses

ACP	100	Introduction to Coatings & Paint Technology	3
ACP	101	Surface Preparation & Coatings	4
ACP	102	Performance & Durability of Coatings	3
ACP	103	Color Technology	3
ACP	104	Specialized Coating Processes	3
ACP	105	Specialized Detailing	3
ACP	106	Aerospace Coatings & Materials	3
ACP	107	Aerospace Program Management	3
ACP	110	Integrated Assembly Capstone Project	4
		OR	
ACP	111	Technical Co-Operative Project	
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	103	Geometric Dimensioning & Tolerance	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	106	Aerospace Blueprint Reading	2
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
EMP	100	Global Professional Standards	2

Required General Education Courses

CED	101	Computer Essentials	2
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Total **47**

Air Conditioning Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Heating and air-conditioning systems control the temperature, humidity, and the total air quality in residential, commercial, industrial, and other buildings. By providing a climate controlled environment, refrigeration systems make it possible to store and transport food, medicine, and other perishable items. *Heating, air-conditioning, and refrigeration mechanics and installers*—also called *technicians*—install, maintain, and repair such systems.

Program Features

The Air Conditioning Technology program is a sequence of courses that prepares students for careers in the air conditioning industry. Learning opportunities develop academic, occupational and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment. Program graduates receive the qualifications of an air conditioning technician. Students can round off their education with 15 credit hours of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,662.00
Fees	1,736.00
Lab Fees	3,477.00
TOTAL	\$10,875.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Associate of Applied Science 62 Credits

Required Technical Courses

ACR	100	Refrigeration Fundamentals	3
ACR	101	Principles & Practices of Refrigeration	4
ACR	105	Electrical Circuits & Wiring Diagrams	4
ACR	107	Air Conditioning Systems	3
ACR	110	Gas Heating Systems	3
ACR	111	Heat Pumps & Related Systems Electricity & Electronics for HVACR	4
ACR	115	Service Technician	4
ACR	120	Building Control Systems I	3
ACR	125	EPA Certification	1
ACR	130	HVAC Design	4
ACR	135	Internship in HVACR	5
ACR	140	Sheet Metal	3
CWG	110	Welding Applications	4
EMP	100	Global Professional Standards	2
SAF	100	OSHA Construction Safety	1

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	Composition 101	3
MTH	112	College Algebra	3
PSY	101	General Psychology OR	3
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking OR	3
SPH	111	Interpersonal Communications	3

Technical Total 62

Accreditations/Affiliations

The Air Conditioning Technology program is approved by the Kansas Board of Regents.

This program is also affiliated with:

- RSES Headquarters
1666 Rand Road
Des Plaines, IL 60016-3552
1.800.295.5660 or 847.297.6464

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Air Conditioning Technology	
11*	81.8%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Air Conditioning Technology	
\$42,250	\$20.31

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Air Conditioning Technology 2011-12 Technical Certificate

Career Description

Heating and air-conditioning systems control the temperature, humidity, and the total air quality in residential, commercial, industrial, and other buildings. By providing a climate controlled environment, refrigeration systems make it possible to store and transport food, medicine, and other perishable items.

Heating, air-conditioning, and refrigeration mechanics and installers—also called *technicians*—install, maintain, and repair such systems.

Program Features

The Air Conditioning Technology program is a sequence of courses that prepares students for careers in the air conditioning industry. Learning opportunities develop academic, occupational and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment. Program graduates receive the qualifications of an air conditioning technician. Students can round off their education with 15 credit hours of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,004.00
Fees	1,204.00
Lab Fees	2,844.00
TOTAL	\$8,052.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Associate of Applied Science 43 Credits

Required Technical Courses

ACR	100	Refrigeration Fundamentals	3
ACR	101	Principles & Practices of Refrigeration	4
ACR	105	Electrical Circuits & Wiring Diagrams	4
ACR	107	Air Conditioning Systems	3
ACR	110	Gas Heating Systems	3
ACR	111	Heat Pumps & Related Systems Electricity & Electronics for HVACR	4
ACR	115	Service Technician	4
ACR	120	Building Control Systems I	3
ACR	125	EPA Certification	1
ACR	130	HVAC Design	4
EMP	100	Global Professional Standards	2
SAF	100	OSHA Construction Safety	1

Required General Education Courses

CED	101	Computer Essentials	2
MTH	101	Intermediate Algebra	3
SPH	101	Public Speaking OR	3
SPH	111	Interpersonal Communications	3

Technical Total 43

Accreditations/Affiliations

The Air Conditioning Technology program is approved by the Kansas Board of Regents.

This program is also affiliated with:

- RSES Headquarters
1666 Rand Road
Des Plaines, IL 60016-3552
1.800.295.5660 or 847.297.6464

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Air Conditioning Technology	
11*	81.8%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Air Conditioning Technology	
\$42,250	\$20.31

Architectural Design Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a structure. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers, surveyors, or architects.

Program Features

Architectural Design Technology is an interdisciplinary curriculum which prepares graduates to for careers in commercial and/or residential architectural fields. In a state of the art computer lab at the National Center for Aviation Training (NCAT) students will solve the real world architectural problems they will encounter in the field. Students will complete a core set of courses which include hands on application in the latest computer aided drafting software as well as CATIA. Additional course topics include Machine Drafting and Design and Materials and Processes. Students will round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,834.00
Fees	1,680.00
Lab Fees	932.00
Total	\$9,446.00

*Cost does not include online fees, books or tools

Associate of Applied Science		60 Credits
Required Technical Courses		
EMP	100	Global Professional Standards 2
MCD	112	Industrial Materials & Processes 2
MCD	113	Technical Drafting 3
MCD	114	Architectural Drafting & Design 3
MCD	115	Machine Drafting & Design 3
MCD	116	Introduction to CAD 5
MCD	121	Descriptive Geometry 3
MCD	122	Architectural CAD 4
MCD	124	Advanced AutoCAD 4
MCD	132	Basic Chief Architect/Architectural Desktop 3
MCD	134	Advanced Chief Architect/Architectural Desktop 3
MCD	140	Drafting Technology Internship 4
OR		
CAT	101	CATIA Part Design & Sketcher
MCD	205	Residential Drafting 3
MCD	206	Commercial Drafting & Design 3
Required General Education Courses		
CED	115	Computer Applications 3
ENG	101	Composition I 3
MTH	112	College Algebra 3
PSY	101	General Psychology 3
OR		
SOC	101	Principles of Sociology
SPH	101	Public Speaking 3
OR		
SPH	111	Interpersonal Communication
Total		60

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Architectural Design Technology program is approved by the Kansas Board of Regents.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Architectural Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Architectural Design	
\$38,990	\$18.74



Architectural Design Technology 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center
4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus
301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a structure. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers, surveyors, or architects.

Program Features

Architectural Design Technology is an interdisciplinary curriculum which prepares graduates to for careers in commercial and/or residential architectural fields. In a state of the art computer lab at the National Center for Aviation Training (NCAT) students will solve the real world architectural problems they will encounter in the field. Students will complete a core set of courses which include hands on application in the latest computer aided drafting software as well as CATIA. Additional course topics include Machine Drafting and Design and Materials and Processes.

Admission Requirements

- In addition to the college's admissions policy, students must:
- Submit an application for admission.
 - Be 16 years of age or older.
 - Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
 - Meet entrance exam requirements.

Costs *

Tuition	\$5,060.00
Fees	1,204.00
Lab Fees	792.00
Total	\$7,056.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Architectural Design Technology program is approved by the Kansas Board of Regents.

Technical Certificate		43 Credits
Required Technical Courses		
EMP 100	Global Professional Standards	2
MCD 112	Industrial Materials & Processes	2
MCD 113	Technical Drafting	3
MCD 114	Architectural Drafting & Design	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 122	Architectural CAD	4
MCD 124	Advanced AutoCAD	4
MCD 132	Basic Chief Architect/Architectural Desktop	3
MCD 134	Advanced Chief Architect/Architectural Desktop	3
Required General Education Courses		
CED 101	Computer Essentials	2
MTH 101	Intermediate Algebra	3
SPH 101	Public Speaking	3
	OR	
SPH 111	Interpersonal Communication	3
Total		43

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Architectural Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Architectural Design	
\$38,990	\$18.74



Architectural Design Technology Chief Architect 2011-12 Certificate of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center
4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus
301 S. Grove

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Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a structure. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers, surveyors, or architects.

Program Features

Architectural Design Technology is an interdisciplinary curriculum which prepares graduates to for careers in commercial and/or residential architectural fields. In a state of the art computer lab at the National Center for Aviation Training (NCAT) students will solve the real world architectural problems they will encounter in the field. Students will complete a core set of courses which include hands on application in the latest computer aided drafting software as well as CATIA. Additional course topics include Machine Drafting and Design and Materials and Processes.

Admission Requirements

- In addition to the college's admissions policy, students must:
- Submit an application for admission.
 - Be 16 years of age or older.
 - Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
 - Meet entrance exam requirements.

Costs *

Tuition	\$1,400.00
Fees	364.00
Lab Fees	259.00
Total	\$2,023.00

*Cost does not include online fees, books or tools

Certificate of Completion		13 Credits
Required Technical Courses		
EMP	100	Global Professional Standards 2
MCD	112	Industrial Materials & Processes 2
MCD	132	Basic Chief Architect/Architectural Desktop 3
MCD	134	Advanced Chief Architect/Architectural Desktop 3
Required General Education Courses		
MTH	101	Intermediate Algebra 3
Total		13

Accreditations/Affiliations

The Architectural Design Technology program is approved by the Kansas Board of Regents.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Automotive Service Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

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Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Highly skilled automotive service specialists are a necessity for today's ever changing technology. Servicing is becoming increasingly computerized, and the field of automotive service technology is constantly growing more complex. Jobs involving tune-ups, transmissions, front-ends and brakes can no longer be isolated and treated separately, but must be coordinated as integral parts of an interrelated system. There is a need for automotive service specialists, parts specialists, and customer service specialists in the servicing of particulars makes and models of vehicles. Future Automotive service technology jobs will be based on the ability to communicate effectively, recognize components and accurately diagnose mechanical and electronic malfunctions.

Program Features

This program allows students to gain skills and knowledge to accurately diagnose, repair and service various automotive vehicles. Program includes classroom and lab instruction in safety, electrical and electronic systems, suspension and steering, engine performance, manual drive train and axles, heating and air conditioning, engine repair and brakes. Program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,166.00
Fees	1,820.00
Lab Fees	1,476.00
TOTAL	\$8,462.00

*Cost does not include online fees, books or tools

Associate of Applied Science 65 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
TAS	121	Engine Repair	4
TAS	123	Suspension & Steering Systems	4
TAS	124	Electrical & Electronic Systems I	3
TAS	125	Electrical & Electronic Systems II	5
TAS	126	Manual Transmission/Transaxle & Drive Train	4
TAS	127	Automatic Transmission Repair	4
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	132	Engine Performance II	5
TAS	133	Automotive Brake Systems I	3
TAS	134	Automotive Brake Systems II	1
TAS	135	Automotive Computer Systems	3

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
PHS	110	Physical Science	5
SPH	101/111	Public Speaking or Interpersonal Communication	3

Total 65

Accreditations/Affiliations

The Automotive Service Technology program is approved by the Kansas Board of Regents.

The program is also accredited by:

- National Automotive Technician Education Foundation
13505 Dulles Technology Drive, Suite 2



Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Automotive Service	
7*	83.3%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Automotive Service	
\$34,770	\$16.72

Automotive Service Technology 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
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wac.edu



WATCWICHITA

Career Description

Highly skilled automotive service specialists are a necessity for today's ever changing technology. Servicing is becoming increasingly computerized, and the field of automotive service technology is constantly growing more complex. Jobs involving tune-ups, transmissions, front-ends and brakes can no longer be isolated and treated separately, but must be coordinated as integral parts of an interrelated system. There is a need for automotive service specialists, parts specialists, and customer service specialists in the servicing of particular makes and models of vehicles. Future Automotive service technology jobs will be based on the ability to communicate effectively, recognize components and accurately diagnose mechanical and electronic malfunctions.

Program Features

This program allows students to gain skills and knowledge to accurately diagnose, repair and service various automotive vehicles. Program includes classroom and lab instruction in safety, electrical and electronic systems, suspension and steering, engine performance, manual drive train and axles, heating and air conditioning, engine repair and brakes. Program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$3,972.00
Fees	1,316.00
Lab Fees	1,267.00
TOTAL	\$6,555.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Technical Certificate

47 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
TAS	121	Engine Repair	4
TAS	123	Suspension & Steering Systems	4
TAS	124	Electrical & Electronic Systems I	3
TAS	125	Electrical & Electronic Systems II	5
TAS	126	Manual Transmission/Transaxle & Drive Train	4
TAS	127	Automatic Transmission Repair	4
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	132	Engine Performance II	5
TAS	133	Automotive Brake Systems I	3
TAS	134	Automotive Brake Systems II	1

Required General Education Courses

CED	101	Computer Essentials	2
EBS	115	Pre Algebra Math	3
Total			47

Accreditations/Affiliations

The Automotive Service Technology program is approved by the Kansas Board of Regents.

The program is also accredited by:

- National Automotive Technician Education Foundation 13505 Dulles Technology Drive, Suite 2



Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Automotive Service	
7*	83.3%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Automotive Service	
\$34,770	\$16.72

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Automotive body and related repairers, often called *collision repair technicians*, straighten bent bodies, remove dents, and replace crumpled parts that cannot be fixed. They repair all types of vehicles, and although some work on large trucks, buses, or tractor-trailers, most work on cars and small trucks. They can work alone, with only general direction from supervisors, or as specialists on a repair team. In some shops, helpers or apprentices assist experienced repairers.

Program Features

This program allows students to gain skills and knowledge in the repair, assembly and refinishing of automotive vehicles. Program includes classroom and laboratory instruction in safety, nonstructural damage repair, structural damage repair, steering, suspension and alignment, electrical systems, painting, refinishing and estimating. The Auto Collision Repair program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,768.00
Fees	1,820.00
Lab Fees	1,391.00
Total	\$8,979.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 65 Credits

Required Technical Courses

TAC	131	Structural Analysis & Damage I	2
TAC	132	Structural Analysis & Damage II	2
TAC	133	Structural Analysis & Damage III	3
TAC	134	Structural Analysis & Damage IV	3
TAC	141	Paint & Refinish I	3
TAC	142	Paint & Refinish II	3
TAC	143	Paint & Refinish III	3
TAC	144	Paint & Refinish IV	4
TAC	151	Nonstructural Analysis & Damage I	4
TAC	152	Nonstructural Analysis & Damage II	4
TAC	153	Nonstructural Analysis & Damage III	4
TAC	154	Nonstructural Analysis & Damage IV	5
TAC	160	Mechanical & Electrical Components	3
EMP	100	Global Professional Standards	2

Required General Education Courses

CED	115	Computer Applications	3
CHM	110	General Chemistry	5
		OR	
PHS	110	Physical Science	
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	

Total 65

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Automotive Collision	
11*	72.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Automotive Collision	
\$35,780	\$17.20

Accreditations/Affiliations

The Automotive Collision Program is accredited by the Higher Learning Commission of the North Central Association.

This program is also accredited by:

- National Automotive Technicians Education Foundation
13505 Dulles Technology Drive, Suite 2
Herndon, VA 20171-3421
703.713.0100

This program is affiliated with:

- Inter-Industry Conference on Auto Collision Repair
1342 Colonial Boulevard, Suite K-230
Ft. Myers, FL 33907
239.939.9667
877.ICAR.MIG
Fax: 239.939.9667
E-Mail: welding@i-car.com
Web Site: www.i-car.com

WATC is an approved I-CAR certified weld testing facility. For the most up-to-date information on the Automotive Steel GMA (MIG) and Automotive Aluminum GMA (MIG) Welding Qualification Tests, other I-CAR qualification tests and I-CAR training programs, visit I-CAR at www.i-car.com, or call 800.422.7872.



Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Automotive Collision 2011-12 Technical Certificate

Career Description

Automotive body and related repairers, often called *collision repair technicians*, straighten bent bodies, remove dents, and replace crumpled parts that cannot be fixed. They repair all types of vehicles, and although some work on large trucks, buses, or tractor-trailers, most work on cars and small trucks. They can work alone, with only general direction from supervisors, or as specialists on a repair team. In some shops, helpers or apprentices assist experienced repairers.

Program Features

This program allows students to gain skills and knowledge in the repair, assembly and refinishing of automotive vehicles. Program includes classroom and laboratory instruction in safety, nonstructural damage repair, structural damage repair, steering, suspension and alignment, electrical systems, painting, refinishing and estimating. The Auto Collision Repair program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,882.00
Fees	1,428.00
Lab Fees	1,306.00
Total	\$7,616.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

51 Credits

Required Technical Courses

TAC	131	Structural Analysis & Damage I	2
TAC	132	Structural Analysis & Damage II	2
TAC	133	Structural Analysis & Damage III	3
TAC	134	Structural Analysis & Damage IV	3
TAC	141	Paint & Refinish I	3
TAC	142	Paint & Refinish II	3
TAC	143	Paint & Refinish III	3
TAC	144	Paint & Refinish IV	4
TAC	151	Nonstructural Analysis & Damage I	4
TAC	152	Nonstructural Analysis & Damage II	4
TAC	153	Nonstructural Analysis & Damage III	4
TAC	154	Nonstructural Analysis & Damage IV	5
TAC	160	Mechanical & Electrical Components	3

Required General Education Courses

CED	101	Computer Essentials	2
EBS	115	Pre-Algebra Math	3
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	

Total

51

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Automotive Collision	
11*	72.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Automotive Collision	
\$35,780	\$17.20

Accreditations/Affiliations

The Automotive Collision Program is accredited by the Higher Learning Commission of the North Central Association.

This program is also accredited by:

- National Automotive Technicians Education Foundation
13505 Dulles Technology Drive, Suite 2
Herndon, VA 20171-3421
703.713.0100

This program is affiliated with:

- Inter-Industry Conference on Auto Collision Repair
1342 Colonial Boulevard, Suite K-230
Ft. Myers, FL 33907
239.939.9667
877.ICAR.MIG
Fax: 239.939.9667
E-Mail: welding@i-car.com
Web Site: www.i-car.com

WATC is an approved I-CAR certified weld testing facility. For the most up-to-date information on the Automotive Steel GMA (MIG) and Automotive Aluminum GMA (MIG) Welding Qualification Tests, other I-CAR qualification tests and I-CAR training programs, visit I-CAR at www.i-car.com, or call 800.422.7872.



Aviation Maintenance Technology

2011-12 Airframe Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
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Grove Campus

301 S. Grove

Phone: 316.677.9400

Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Today's airplanes are highly complex machines with parts that must function within extreme tolerances for them to operate safely. To keep aircraft in peak operating condition, aircraft and avionics equipment mechanics and service technicians perform scheduled maintenance, make repairs, and complete inspections required by the FAA.

Program Features

This program meets the requirements for students to take the exam for the airframe certificate. The certificate authorizes the holder to approve aircraft that has undergone inspection or maintenance for return to service. This curriculum is approved by the Federal Aviation Administration. Graduates from this program are in demand not only in the field of aviation but in other fields that require a high degree of mechanical knowledge.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$11,340.00
Fees	1,960.00
Total	\$13,300.00

*Cost does not include online fees, books or tools

Start Dates

August 2011
January 2012
May 2012

Technical Certificate

70 Credits

Required Technical Courses

General Curriculum

AMT	105	Technical Mathematics	2
AMT	107	Aircraft Drawings	1
AMT	109	Physics	2
AMT	111	Materials & Processes	4
AMT	113	Basic Electricity	4
AMT	115	Weight & Balance	2
AMT	117	Mechanics Privileges & Limitations	1
AMT	119	Maintenance Publications, Forms & Records	2
AMT	123	Cleaning & Corrosion Control	1
AMT	125	Fluids Lines & Fittings	1
AMT	127	Ground Operations & Services	2
AMT	131	General Review & Test	1

Airframe Curriculum

AMT	108	Aircraft Coverings	2
AMT	112	Assembly & Rigging	4
AMT	116	Aircraft Instrument Systems	1
AMT	120	Aircraft Inspection	3
AMT	151	Aircraft Electrical Systems	6
AMT	153	Hydraulic & Pneumatic Power Systems	2
AMT	155	Aircraft Landing Gear Systems	4
AMT	159	Aircraft Fuel Systems	2
AMT	161	Fire Protection System	1
AMT	163	Ice & Rain Control Systems	1
AMT	165	Cabin Atmosphere Control Systems	2
AMT	167	Aircraft Welding	2
AMT	169	Communication & Navigation Systems	2
AMT	173	Position & Warning Systems	1
AMT	177	Wood Structures	1
AMT	179	Aircraft Sheetmetal & Non-Metallic Structures	7
AMT	183	Aircraft Finishes	2
AMT	186	Airframe Review & Test	4

Total Credit Hours

70

Accreditations/Affiliations

The Aviation Maintenance Technology program is approved by the Kansas Board of Regents and the Federal Aviation Administration.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Aviation Maintenance Technology-Airframe	
169*	82.8%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aviation Maintenance Technology-Airframe	
\$50,350	\$24.29



Aviation Maintenance Technology 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center
4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus
301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Today's airplanes are highly complex machines with parts that must function within extreme tolerances for them to operate safely. To keep aircraft in peak operating condition, aircraft and avionics equipment mechanics and service technicians perform scheduled maintenance, make repairs, and complete inspections required by the FAA.

Program Features

This program meets the requirements for students to take the FAA exam for the airframe and powerplant mechanic certificate. The certificate authorizes the holder to approve aircraft that has undergone inspection or maintenance for return to service. This curriculum is approved by the Federal Aviation Administration. Graduates from this program are in demand not only in the field of aviation but in other fields that require a high degree of mechanical knowledge.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$20,070.00
Fees	3,780.00
Total	\$23,850.00

*Cost does not include online fees, books or tools

Start Dates

- August 2011
- January 2012
- May 2012

Accreditations/Affiliations

The Aviation Maintenance Technology program is approved by the Kansas Board of Regents and Federal Aviation Administration.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Aviation Maintenance Technology	
169*	82.8%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

	Annually	Hourly
Aviation Maintenance Technology		
	\$50,530	\$24.29

Associate of Applied Science 135 Credits

Required Technical Courses

General Curriculum

AMT 105	Technical Mathematics	2
AMT 107	Aircraft Drawings	1
AMT 109	Physics	2
AMT 111	Materials & Processes	4
AMT 113	Basic Electricity	4
AMT 115	Weight & Balance	2
AMT 117	Mechanics Privileges & Limitations	1
AMT 119	Maintenance Publications, Forms & Records	2
AMT 123	Cleaning & Corrosion Control	1
AMT 125	Fluids Lines & Fittings	1
AMT 127	Ground Operations & Services	2
AMT 131	General Review & Test	1

Airframe Curriculum

AMT 108	Aircraft Coverings	2
AMT 112	Assembly & Rigging	4
AMT 116	Aircraft Instrument Systems	1
AMT 120	Aircraft Inspection	3
AMT 151	Aircraft Electrical Systems	6
AMT 153	Hydraulic & Pneumatic Power Systems	2
AMT 155	Aircraft Landing Gear Systems	4
AMT 159	Aircraft Fuel Systems	2
AMT 161	Fire Protection System	1
AMT 163	Ice & Rain Control Systems	1
AMT 165	Cabin Atmosphere Control Systems	2
AMT 167	Aircraft Welding	2
AMT 169	Communication & Navigation Systems	2
AMT 173	Position & Warning Systems	1
AMT 177	Wood Structures	1
AMT 179	Aircraft Sheetmetal & Non-Metallic Structures	7
AMT 183	Aircraft Finishes	2
AMT 186	Airframe Review & Test	4

Associate of Applied Science 135 Credits

Required Technical Courses (continued)

Powerplant Curriculum

AMT 136	Propellers	4
AMT 200	Reciprocating Engines	9
AMT 202	Engine Inspection	2
AMT 203	Powerplant Ignition & Starting Systems	3
AMT 204	Engine Fuel Systems	1
AMT 206	Auxiliary Power Units	1
AMT 207	Fuel Metering Systems	4
AMT 208	Engine Electrical Systems	2
AMT 211	Powerplant Cooling Systems	1
AMT 213	Powerplant Lubrication Systems	3
AMT 217	Induction Systems	1
AMT 219	Powerplant Exhaust & Reverser Systems	2
AMT 223	Powerplant Fire Protection Systems	1
AMT 225	Powerplant Instrument Systems	1
AMT 227	Turbine Engines	8
AMT 231	Powerplant Review & Test	4

Required General Education Courses

CED 115	Computer Applications	3
ENG 101	Composition I	3
ENG 102	Composition II	3
MTH 112	College Algebra	3
PSY 101	General Psychology	3
	OR	
SOC 101	Principles of Sociology	
SPH 111	Interpersonal Communications	3

Total Credit Hours 135

Aviation Maintenance Technology 2011-12 Powerplant Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

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WATCWICHITA

Career Description

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Program Features

This program meets the requirements for students to take the exam for the airframe certificate. The certificate authorizes the holder to approve aircraft that has undergone inspection or maintenance for return to service. This curriculum is approved by the Federal Aviation Administration. Graduates from this program are in demand not only in the field of aviation but in other fields that require a high degree of mechanical knowledge.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$11,340.00
Fees	1,960.00
Total	\$13,300.00

*Cost does not include online fees, books or tools

Start Dates

August 2011
January 2012
May 2012

Technical Certificate

70 Credits

Required Technical Courses

General Curriculum

AMT	105	Technical Mathematics	2
AMT	107	Aircraft Drawings	1
AMT	109	Physics	2
AMT	111	Materials & Processes	4
AMT	113	Basic Electricity	4
AMT	115	Weight & Balance	2
AMT	117	Mechanics Privileges & Limitations	1
AMT	119	Maintenance Publications, Forms & Records	2
AMT	123	Cleaning & Corrosion Control	1
AMT	125	Fluids Lines & Fittings	1
AMT	127	Ground Operations & Services	2
AMT	131	General Review & Test	1

Powerplant Curriculum

AMT	136	Propellers	4
AMT	200	Reciprocating Engines	9
AMT	202	Engine Inspection	2
AMT	203	Powerplant Ignition & Starting Systems	3
AMT	204	Engine Fuel Systems	1
AMT	206	Auxiliary Power Units	1
AMT	207	Fuel Metering Systems	4
AMT	208	Engine Electrical Systems	2
AMT	211	Powerplant Cooling Systems	1
AMT	213	Powerplant Lubrication Systems	3
AMT	217	Induction Systems	1
AMT	219	Powerplant Exhaust & Reverser Systems	2
AMT	223	Powerplant Fire Protection Systems	1
AMT	225	Powerplant Instrument Systems	1
AMT	227	Turbine Engines	8
AMT	231	Powerplant Review & Test	4

Total Credit Hours

70

Accreditations/Affiliations

The Aviation Maintenance Technology program is approved by the Kansas Board of Regents and the Federal Aviation Administration.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Aviation Maintenance Technology-Powerplant	
169*	82.8%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aviation Maintenance Technology-Powerplant	
\$50,350	\$24.29

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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watc.edu



WATCWICHITA

Career Description

Individuals in this position have a well-rounded knowledge base of the aerospace industry. Technicians fabricate materials to build an aircraft, test equipment, and determine the causes of malfunctions and perform mechanical assembly on the aircraft.

Program Features

This Applied Science of Aviation Manufacturing program is a sequence of courses designed to produce an aerospace technician with multiple skill sets and a well-rounded understanding of the aerospace industry. Students master the high-demand skills of Mechanical Assembly, Composite Fabrication and Basic Avionics. Additional coursework taken from a core set of aviation topics provides students with an in-depth perspective on the aviation industry. Topics include quality control, aerospace manufacturing and aircraft systems and components.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,148.00
Fees	1,232.00
Lab Fees	2,270.00
Total	\$8,650.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Aviation Manufacturing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate		44 Credits	
Required Technical Courses			
AER	132	Aerostructures Assembly	4
AER	133	Advanced Aerostructures	2
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	103	Geometric Dimensioning & Tolerance	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	106	Aerospace Blueprint Reading	2
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
AVT	101	Basic Electricity & Electronics	3
AVT	102	Basic Electricity & Electronics lab	4
AVT	103	Introduction to Avionics	3
AVT	108	Wiring & Cannon Plug Lab	2
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/ Applications	2
EMP	100	Global Professional Standards	2
Required General Education Courses			
GED	101	Computer Essentials	2
Total		44	

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aviation Manufacturing	
\$42,140	\$20.26



Aviation Manufacturing (Avionics Option) 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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Southside Center

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WATCWICHITA

Career Description

Individuals in this position have a well-rounded knowledge base of the aerospace industry. Technicians fabricate materials to build an aircraft, test equipment, and determine the causes of malfunctions and perform mechanical assembly on the aircraft.

Program Features

This Applied Science of Aviation Manufacturing program is a sequence of courses designed to produce an aerospace technician with multiple skill sets and a well-rounded understanding of the aerospace industry. Students master the high-demand skills of Mechanical Assembly, Composite Fabrication and Basic Avionics. Additional coursework taken from a core set of aviation topics provides students with an in-depth perspective on the aviation industry. Topics include quality control, aerospace manufacturing and aircraft systems and components. Students can round off their educational experiences by completing 19 credits of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,264.00
Fees	1,736.00
Lab Fees	2,320.00
Total	\$10,320.00

*Cost does not include online fees, books or tools

Associate of Applied Science 62 Credits

Required Technical Courses

AER	133	Advanced Aerostructures	2
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
AVC	103	Geometric Dimensioning & Tolerance	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	106	Aerospace Blueprint Reading	2
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
AVT	101	Basic Electricity & Electronics	3
AVT	102	Basic Electricity & Electronics lab	4
AVT	103	Introduction to Avionics	3
AVT	108	Wiring & Cannon Plug Lab	2
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/ Applications	2
EMP	100	Global Professional Standards	2

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHS	120	General Physics I	5
		OR	
PHS	110	Physical Science	
SOC	101	Principles of Sociology	3
		OR	
PSY	101	General Psychology	
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	

Total 62

Accreditations/Affiliations

The Aviation Manufacturing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011

January 2012

June 2012

October 2011

March 2012

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aviation Manufacturing	
\$42,140	\$20.26



Aviation Manufacturing (Composites Option) 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
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watac.edu



WATCWICHITA

Career Description

Individuals in this position have a well-rounded knowledge base of the aerospace industry. Technicians fabricate materials to build an aircraft, test equipment, and determine the causes of malfunctions and perform mechanical assembly on the aircraft.

Program Features

This Applied Science of Aviation Manufacturing program is a sequence of courses designed to produce an aerospace technician with multiple skill sets and a well-rounded understanding of the aerospace industry. Students master the high-demand skills of Mechanical Assembly, Composite Fabrication and Basic Avionics. Additional coursework taken from a core set of aviation topics provides students with an in-depth perspective on the aviation industry. Topics include quality control, aerospace manufacturing and aircraft systems and components. Students can round off their educational experiences by completing 19 credits of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,814.00
Fees	1,660.00
Lab Fees	3,805.00
Total	\$11,279.00

*Cost does not include online fees, books or tools

Associate of Applied Science		62 Credits
Required Technical Courses		
AER	132	Aerostructures Assembly 4
AER	133	Advanced Aerostructures 2
AVC	100	Aerospace Safety 1
AVC	101	Applied Shop Math 2
AVC	102	Precision Instruments 1
AVC	103	Geometric Dimensioning & Tolerancing 1
AVC	104	Quality Control Concepts 1
AVC	105	Aircraft Familiarization 1
AVC	106	Aerospace Blueprint Reading 2
AVC	107	Fundamentals for Aerospace Manufacturing 1
AVC	108	Aircraft Systems & Components 4
CFT	101	Introduction to Composites 2
CFT	106	Composites Finish Trim 2
CFT	107	Composites Assembly 2
CFT	140	Composite Inspection 2
CFT	141	Disassembly & Damage Removal Techniques 3
CFT	142	Composite Repair 4
CFT	143	Complex Composite Repairs 3
CFT	130	Composites Fabrication Methods/ Applications 2
EMP	100	Global Professional Standards 2
Required General Education Courses		
CED	115	Computer Applications 3
ENG	101	Composition I 3
MTH	112	College Algebra 3
PHS	120	General Physics I 5
		OR
PHS	110	Physical Science
SOC	101	Principles of Sociology 3
		OR
PSY	101	General Psychology
SPH	101	Public Speaking 3
		OR
SPH	111	Interpersonal Communication
Total		62

Accreditations/Affiliations

The Aviation Manufacturing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011
January 2012
June 2012

October 2011
March 2012

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Aviation Manufacturing	
\$42,140	\$20.26

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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watc.edu



WATCWICHITA

Career Description

Today's airplanes are highly complex machines with parts that must function within extreme tolerances for them to operate safely. To keep aircraft in peak operating condition perform scheduled maintenance, make repairs, and complete inspections required by the FAA.

Program Features

The Avionics Technology program develops academic, technical and professional knowledge and skills required for job acquisition. The program emphasizes a combination of aircraft and avionics theory and practical application necessary for successful employment. Program graduates receive an Avionics Technology technical certificate that qualifies them as avionics technicians. Students can round off their educational experience by completing 15 credits of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$7,504.00
Fees	1,820.00
Lab Fees	3,140.00
Total	\$12,464.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Avionics Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science		65 Credits
Required Technical Courses		
AVT	100	Technical Mathematics 3
AVT	101	Basic Electricity & Electronics 3
AVT	102	Basic Electricity & Electronics Lab 3
AVT	103	Introduction to Avionics 3
AVT	105	Avionics Systems & Troubleshooting 2
AVT	106	Avionics Systems & Troubleshooting Lab 3
AVT	107	Basic Communications Electronics 3
AVT	108	Wiring & Cannon Plug Lab 2
AVT	110	Aircraft Electrical, Communication, & Navigation Systems (Part 1) 3
AVT	111	Aircraft Electrical, Communication, & Navigation Systems (Part 1) Lab 3
AVT	112	Aircraft Electrical, Communication, & Navigation Systems (Part 2) 2
AVT	113	Aircraft Electrical, Communications, & Navigation Systems (Part 2) Lab 3
AVT	115	Basic Communications Electronics Lab 3
AVT	122	Practical Electronics Technology for NCATT Applications 4
AVT	125	Digital Electronics Fundamentals 2
AVT	126	Digital Electronics Fundamentals Lab 2
AVT	135	Advanced Analog & Digital Communications 2
AVT	136	Advanced Analog & Digital Communications Lab 2
EMP	100	Global Professional Standards 2
Required General Education Courses		
CED	115	Computer Applications 3
ENG	101	Composition I 3
MTH	112	College Algebra 3
PSY	101	General Psychology 3
SPH	101	Public Speaking 3
		OR
SPH	111	Interpersonal Communication
Total		65

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Avionics Technology	
20*	64.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Avionics Technology	
\$47,840	\$23.00

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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WATCWICHITA

Career Description

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Program Features

The Avionics Technology program develops academic, technical and professional knowledge and skills required for job acquisition. The program emphasizes a combination of aircraft and avionics theory and practical application necessary for successful employment. Program graduates receive an Avionics Technology technical certificate that qualifies them as avionics technicians. Students can round off their educational experience by completing 15 credits of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,978.00
Fees	420.00
Lab Fees	479.00
Total	\$2,877.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Avionics Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Certificate of Completion		15 Credits
Required Technical Courses		
AVC	100	Aerospace Safety
		1
AVT	100	Technical Mathematics
		3
AVT	101	Basic Electricity & Electronics
		3
AVT	102	Basic Electricity & Electronics Lab
		3
AVT	103	Introduction to Avionics
		3
AVT	108	Wiring & Cannon Plug Lab
		2
Total		15

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Avionics Technology	
20*	64.7%

* Graduates Eligible and Contacted in follow-up study

Wages

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WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Avionics Technology	
\$47,840	\$23.00

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

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Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,502.00
Fees	1,176.00
Lab Fees	3,140.00
Total	\$9,818.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Avionics Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate		42 Credits
Required Technical Courses		
AVT	100	Technical Mathematics
		3
AVT	101	Basic Electricity & Electronics
		3
AVT	102	Basic Electricity & Electronics Lab
		3
AVT	103	Introduction to Avionics
		3
AVT	105	Avionics Systems & Troubleshooting
		2
AVT	106	Avionics Systems & Troubleshooting Lab
		3
AVT	107	Basic Communications Electronics
		3
AVT	108	Wiring & Cannon Plug Lab
		2
AVT	110	Aircraft Electrical, Communication, & Navigation Systems (Part 1)
		3
AVT	111	Aircraft Electrical, Communication, & Navigation Systems (Part 1) Lab
		3
AVT	112	Aircraft Electrical, Communication, & Navigation Systems (Part 2)
		2
AVT	113	Aircraft Electrical, Communications, & Navigation Systems (Part 2) Lab
		3
AVT	115	Basic Communications Electronics Lab
		3
AVT	125	Digital Electronics Fundamentals
		2
AVT	126	Digital Electronics Fundamentals Lab
		2
EMP	100	Global Professional Standards
		2
Total		42

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Avionics Technology	
20*	64.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Avionics Technology	
\$47,840	\$23.00

Business Administration (Accounting) 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of core general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Challenges within the economy have made it important that companies have employees who have the skills to read, create and interpret financial statements. Students with an emphasis in Accounting learn the processes for analyzing and reporting the economic activities of organizations.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,066.00
Fees	1,764.00
Lab Fees	50.00
TOTAL	\$5,880.00

*Cost does not include online fees, books or tools

Start Dates

Associate of Applied Science 63 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Required Technical Courses

ACC	104	Computerized Accounting	3
ACC	152	Payroll Accounting	3
BAF	105	Introduction to US Financial System	3
BUS	130	Personal Finance	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1

Natural Science (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total 63

Accreditations/Affiliations

The Accounting program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.



Business Administration (Accounting) 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Challenges within the economy have made it important that companies have employees who have the skills to read, create and interpret financial statements. Students with an emphasis in Accounting learn the processes for analyzing and reporting the economic activities of organizations.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$2,760.00
Fees	1,120.00
TOTAL	\$3,880.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate		40 Credits
Required General Education Courses		
ACC	130	Managerial Accounting 3
ACC	160	Principles of Accounting I 3
ACC	170	Principles of Accounting II 3
BUS	104	Introduction to Business 3
BUS	125	Business Law 3
BUS	200	Principles of Management 3
CED	115	Computer Applications 3
Required Technical Courses		
ACC	104	Computerized Accounting 3
ACC	152	Payroll Accounting 3
BAF	105	Introduction to US Financial System 3
BUS	130	Personal Finance 3
OPM	115	Introduction to Project Management 3
PSS	100	Six Sigma Yellow Belt 1
PSS	101	Six Sigma Green Belt Methods 3
Total		40

Accreditations/Affiliations

The Accounting program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of core general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Recent turmoil within the financial services industry has created a need for business people who can accurately analyze risk of the borrower and the saver. An emphasis in Banking and Finance prepares students for a successful career in the financial services and retail banking sectors.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4066.00
Fees	1,764.00
Lab Fees	50.00
TOTAL	\$5,880.00

*Cost does not include online fees, books or tools

Start Dates

Associate of Applied Science 63 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Required Technical Courses

BAF	103	Finance	3
BAF	105	Introduction to US Financial System	3
BAF	121	Introduction to Bank Management	3
BUS	130	Personal Finance	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Natural Science (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total 63

Accreditations/Affiliations

The Banking and Finance program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Recent turmoil within the financial services industry has created a need for business people who can accurately analyze risk of the borrower and the saver. An emphasis in Banking and Finance prepares students for a successful career in the financial services and retail banking sectors.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$2,760.00
Fees	1,120.00
TOTAL	\$3,880.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate 40 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3

Required Technical Courses

BAF	103	Finance	3
BAF	105	Introduction to US Financial System	3
BAF	121	Introduction to Bank Management	3
BUS	130	Personal Finance	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Total	40
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Accreditations/Affiliations

The Banking and Finance program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.



Business Administration (E-Marketing) 2011-12 Certificate Of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,188.00
Fees	392.00
TOTAL	\$1,580.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Certificate of Completion

14 Credits

Required Technical Courses

BMT	101	Optimize Your Website: Beginning Search Engine Optimization (SEO)	1
BMT	105	Online Advertising-Beginning Google Ad-words	1
BMT	110	Blogging for Your Business	1
BMT	115	Beginning E-Mail Marketing	1
BMT	120	Social Media Madness	1
BUS	140	Principles of Marketing	3
OPM	115	Introduction to Project Management	3
PHR	105	Negotiations & Relationship Management	3

Total **14**

Accreditations/Affiliations

The E-Marketing program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Business Administration (Operations Management) 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of core general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Operations management oversees the workforce, materials and mechanical or technical logistics of the production process. An emphasis in Operations Management gives students the skills to handle production scheduling, employee staffing, maintenance of equipment, quality control and inventory control.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,519.00
Fees	1,764.00
Lab Fees	50.00
TOTAL	\$6,333.00

*Cost does not include online fees, books or tools

Start Dates

Associate of Applied Science 63 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Required Technical Courses

LEN	100	Lean for Operations	3
OPM	105	Operations Mgmt. for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Elective (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total 63

Accreditations/Affiliations

The Operations Management program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Operations management oversees the workforce, materials and mechanical or technical logistics of the production process. An emphasis in Operations Management gives students the skills to handle production scheduling, employee staffing, maintenance of equipment, quality control and inventory control.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,410.00
Fees	420.00
TOTAL	\$1,830.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Certificate of Completion

15 Credits

Required Technical Courses

OPM	100	Lean Sigma	3
OPM	105	Operations Management for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PHR	105	Negotiations & Relationship Management	3

Total

15

Accreditations/Affiliations

The Operations Management program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Business Administration (Operations Management) 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Operations management oversees the workforce, materials and mechanical or technical logistics of the production process. An emphasis in Operations Management gives students the skills to handle production scheduling, employee staffing, maintenance of equipment, quality control and inventory control.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$3093.00
Fees	1,120.00
TOTAL	\$4,213.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

40 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3

Required Technical Courses

LEN	100	Lean for Operations	3
MGT	106	Introduction to Human Resources	3
OPM	105	Operations Management for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Total **40**

Accreditations/Affiliations

The Operations Management program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of core general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,786.00
Fees	1,764.00
Lab Fees	50.00
TOTAL	\$6,600.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Six Sigma program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Associate of Applied Science 63 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Required Technical Courses

OPM	105	Operations Management for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3
PSS	105	Six Sigma Green Belt Statistics	3
PSS	115	Six Sigma Black Belt Methods	3
PSS	120	Six Sigma Black Belt Experimentation & Transfer Function	3

Natural Science (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total 63

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,326.00
Fees	364.00
TOTAL	\$1,690.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Certificate of Completion 13 Credits

Required Technical Courses

PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3
PSS	105	Six Sigma Green Belt Statistics	3
PSS	115	Six Sigma Black Belt Methods	3
PSS	120	Six Sigma Black Belt Experimentation & Transfer Function	3
Total			13

Accreditations/Affiliations

The Six Sigma program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$3,546.00
Fees	1,204.00
TOTAL	\$4,750.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

40 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3

Required Technical Courses

OPM	105	Operations Mgmt. for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3
PSS	105	Six Sigma Green Belt Statistics	3
PSS	115	Six Sigma Black Belt Methods	3
PSS	120	Six Sigma Black Belt Experimentation & Transfer Function	3

Total **40**

Accreditations/Affiliations

The Six Sigma program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.



Certification in Production & Inventory Management

2011-12 Certificate of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
 4004 N. Webb Rd.
 Mon-Thur 8am - 6pm
 Friday 8am - 5pm

Southside Center
 4501 E. 47th St South
 Mon-Thur 8am - 7pm
 Friday 8am - 5pm

Phone: 316.677.9400
 Fax: 316.677.9555
 watc.edu



Career Description

The APICS CPIM program provides Operations Management professionals with relevant, essential education that equips them for today's marketplace. The in-depth approach taken to understanding and evaluating production and inventory activities within a company's global operations is why this certification is preferred by thousands of employers worldwide.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,674.00
Fees	420.00
TOTAL	\$2,094.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The CPIM program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Certificate of Completion		15 Credits
Required Technical Courses		
PIM	100	Introduction to Materials Management 2
PIM	105	Basics of Supply Chain Management 2
PIM	110	Master Planning of Resources 2
PIM	115	Detailed Scheduling and Planning 2
PIM	120	Execution & Control of Operations 2
PIM	125	Strategic Management of Resources 2
Electives (Minimum 6 credits required)		
LEN	100	Lean for Operations 3
OPM	100	Lean Sigma 3
OPM	105	Operations Management for Organizational Success 3
OPM	110	Introduction to Supply Chain Management 3
OPM	115	Introduction to Project Management 3
PSS	101	Six Sigma Green Belt Methods 3
Total		15



Certified Medication Aide 2011-12 Certificate of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

A Medication Aide, also referred to as a Medical Technician, distributes patient medications in nursing homes, schools, correctional facilities, or other non-hospital, assisted living facilities for the physically or mentally disabled. Medication Aides are directly supervised by doctors or other licensed caretakers. They typically assist patients in properly taking oral, topical, or intravenous prescriptions in correct dosages, as well as adhering to strict medical regimens. A Medication Aide also supervises patients to ensure they do not have any adverse reactions after taking their medications.

Program Features

The Certified Medication Aide course focuses on the knowledge and skills needed for safe medication administration in long-term facilities. Graduates are eligible to take the Kansas certification examination to become certified. This course builds upon the role of a certified nurse aide (CNA) and includes accurately measuring, administering and documenting medications to residents.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Certified Medication Aide Admission Checklist.

Costs *

Tuition	\$440.00
Fees	140.00
Lab Fees	94.00
Total	\$674.00

*Cost does not include online fees, books or tools

Certificate of Completion	5 Credits
Required Technical Courses	
GRA 119 Medication Aide	5
Total	5

Accreditations/Affiliations

The Certified Medication Aide program is approved by the Kansas Board of Regents.

The program is also approved by:

- Kansas Department of Health and Environment
1000 SW Jackson, Suite 200
Topeka, KS 66212-1365
785.296.0056

Start Dates

Multiple Entry Points Per Semester

GIVE YOUR CAREER LIFT

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Certified Medication Aide	
\$22,000.00	\$10.60

Program Information

Physical and Environmental Requirements:

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:

- Awkward position
- Balancing
- Color vision
- Crouching
- Depth perception
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Reaching
- Smelling
- Speaking
- Standing/moving about
- Stooping
- Twisting

Individuals in this position are exposed to the following:

- Blood borne pathogens
- Use of electrical equipment
- Use of sharp utensils
- Wet work - hands

The following mental and communicative activities are essential to the performance of this position:

- Ability to handle stress and emotions
- Ability to handle conflict
- Ability to organize materials
- Careful attention to detail
- Concentrating on task
- Dealing with diverse populations
- Fast reaction time
- Handling multiple priorities
- Making decisions with limited information
- Making non-routine judgments
- Performing tasks during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Reasoning - applying procedures
- Reporting to multiple supervisors
- Using diplomacy and tact

Individuals in this position are required to carry or lift weights Between 25 – 50 pounds.

Additional Admissions Requirements

Note: Beginning July 1, 1998, persons who have been found guilty of a felony related to crimes against a person may be denied employment in adult care homes and home health agencies (KSA 39-970 and KSA 65-5117). Visit www.kdhe.state.ks.us/hoc for a list of prohibited offenses, or call Melinda Reynard-Lindsay, 785.296.8628.



Certified Nurse Aide 2011-12 Certificate of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Nursing Aides, also known as Nurse Aides, Nursing Assistants, or Certified Nursing Assistants provide hands-on care and perform routine tasks under the supervision of nursing and medical staff. Specific tasks vary, with aides handling many aspects of a patient's care. They often help patients to eat, dress, and bathe. They also answer calls for help, deliver messages, serve meals, make beds, and tidy up rooms. Aides sometimes are responsible for taking a patient's temperature, pulse rate, respiration rate, or blood pressure. They also may help provide care to patients by helping them get out of bed and walk, escorting them to operating and examining rooms, or providing skin care. Some aides help other medical staff by setting up equipment, storing and moving supplies, and assisting with some procedures.

Program Features

Instruction includes classroom, laboratory and clinical experiences. Students must successfully complete a competency skills checklist, maintain attendance as defined in the course syllabus and achieve satisfactory grades. Daytime classes meet daily for approximately five weeks, and evening classes meet two to three times a week for approximately three months. The program meets the guidelines of the Kansas Department of Health and Environment, and graduates may take the state examination to become CNAs after successful completion of the course.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Certified Nurse Aide Admission Checklist.

Costs *

Tuition	\$440.00
Fees	140.00
Lab Fees	123.00
Total	\$703.00

*Cost does not include online fees, books or tools

Certificate of Completion	5 Credits
Required Technical Courses	
GRA 101 Certified Nurse Aide	5
Total	5

Accreditations/Affiliations

The Certified Nurse Aide program is approved by the Kansas Board of Regents.

The program is also approved by:

- Kansas Department of Health and Environment
1000 SW Jackson, Suite 200
Topeka, KS 66212-1365
785.296.0056

Start Dates

Multiple Entry Points Per Semester

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Physical and Environmental Requirements:

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:

- Awkward position

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Certified Nurse Aide	
\$22,420.00	\$10.78

Program Information

Graduates* Placement for all employed in the military or continuing their education

Certified Nurse Aide	
251*	95.80%

* Graduates Eligible and Contacted in follow-up study

- Balancing
- Color vision
- Crouching
- Depth perception
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Reaching
- Smelling
- Speaking
- Standing/moving about
- Stooping
- Twisting

Individuals in this position are exposed to the following:

- Blood borne pathogens
- Use of electrical equipment
- Use of sharp utensils
- Wet work - hands

The following mental and communicative activities are essential to the performance of this position:

- Ability to handle stress and emotions
- Ability to handle conflict
- Ability to organize materials
- Careful attention to detail
- Concentrating on task
- Dealing with diverse populations
- Fast reaction time
- Handling multiple priorities
- Making decisions with limited information
- Making non-routine judgments
- Performing tasks during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Reasoning - applying procedures
- Reporting to multiple supervisors
- Using diplomacy and tact

Individuals in this position are required to carry or lift weights Between 25 – 50 pounds.

Additional Admissions Requirements

Note: Beginning July 1, 1998, persons who have been found guilty of a felony related to crimes against a person may be denied employment in adult care homes and home health agencies (KSA 39-970 and KSA 65-5117). Visit www.kdhe.state.ks.us/hoc for a list of prohibited offenses, or call Melinda Reynard-Lindsay, 785.296.8628.

Composite Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400

Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Composite materials have gained popularity in high-performance products that need to be light-weight, yet strong enough to take harsh loading conditions such as aerospace components. This need will create more jobs in the labor market between 2006 and 2016.

Program Features

This program provides students with the skills and knowledge necessary to work in various phases of the composite industry. Students receive hands-on working knowledge of the manufacturing methods and techniques used in today's composite industries. Graduates are able to manufacture, trim and finish composite components using manual lay-up methods. Students also become familiar with the materials used to create the ever-increasing number of composite components and structures.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,381.00
Fees	1,736.00
Lab Fees	3,302.00
Total	\$11,419.00

*Cost does not include online fees, books or tools

Associate of Applied Science		62 Credits
Required Technical Courses		
AVC	100	Aerospace Safety 1
AVC	101	Applied Shop Math 2
AVC	103	Geometric Dimensioning & Tolerance 1
AVC	105	Aircraft Familiarization 1
AVC	106	Aerospace Blueprint Reading 2
AVC	108	Aircraft Systems & Components 4
CAT	122	Enovia DMU 2
CFT	101	Introduction to Composites 2
CFT	106	Composite Finish Trim 2
CFT	107	Composite Assembly 2
CFT	130	Composite Fabrication Methods/ Applications 2
CFT	140	Composite Inspection 2
CFT	141	Disassembly & Damage Removal Tech- niques 3
CFT	142	Composite Repair 4
CFT	143	Complex Composite Repairs 3
CFT	144	Electrical Bonding Repair 1
EMP	100	Global Professional Standards 2
LEN	100	Lean for Operations 3
MET	101	Fundamentals of Quality Control 3
Required General Education Courses		
CED	115	Computer Applications 3
ENG	101	Composition I 3
MTH	112	College Algebra 3
CHM	110	General Chemistry 5
SOC	101	Principles of Sociology 3
OR		
PSY	101	General Psychology
SPH	111	Interpersonal Communication 3
Total		62

Accreditations/Affiliations

The Composite Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011
January 2012
June 2012

October 2011
March 2012

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Composite Technology	
\$30,010	\$14.43

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Composite materials have gained popularity in high-performance products that need to be light-weight, yet strong enough to take harsh loading conditions such as aerospace components. This need will create more jobs in the labor market between 2006 and 2016.

Program Features

This program provides students with the skills and knowledge necessary to work in various phases of the composite industry. Students receive hands-on working knowledge of the manufacturing methods and techniques used in today's composite industries. Graduates are able to manufacture, trim and finish composite components using manual lay-up methods. Students also become familiar with the materials used to create the ever-increasing number of composite components and structures.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,451.00
Fees	1,316.00
Lab Fees	3,252.00
Total	\$10,019.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Composite Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate		47 Credits	
Required Technical Courses			
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	103	Geometric Dimensioning & Tolerance	1
AVC	105	Aircraft Familiarization	1
AVC	106	Aerospace Blueprint Reading	2
AVC	108	Aircraft Systems & Components	4
CAT	122	Enovia DMU	2
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/ Applications	2
CFT	140	Composite Inspection	2
CFT	141	Disassembly & Damage Removal Techniques	3
CFT	142	Composite Repair	4
CFT	143	Complex Composite Repairs	3
CFT	144	Electrical Bonding Repair	1
EMP	100	Global Professional Standards	2
LEN	100	Lean for Operations	3
MET	101	Fundamentals of Quality Control	3
Required General Education Courses			
CED	101	Computer Essentials	2
SPH	111	Interpersonal Communication	3
Total			47

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Composite Technology	
\$30,010	\$14.43

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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Friday 8am - 5pm

Grove Campus

301 S. Grove

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Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Composite materials have gained popularity in high-performance products that need to be light-weight, yet strong enough to take harsh loading conditions such as aerospace components. This need will create more jobs in the labor market between 2006 and 2016.

Program Features

This program provides students with the skills and knowledge necessary to work in various phases of the composite industry. Students receive hands-on working knowledge of the manufacturing methods and techniques used in today's composite industries. Graduates are able to manufacture, trim and finish composite components using manual lay-up methods. Students also become familiar with the materials used to create the ever-increasing number of composite components and structures.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Composite Fabrication

Tuition	\$1,724.00
Fees	420.00
Lab Fees	988.00
Total	\$3,132.00

*Cost does not include online fees, books or tools

Composite Repair

Tuition	\$1,946.00
Fees	420.00
Lab Fees	2,229.00
Total	\$4,595.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Composite Fabrication

Certificate of Completion

15 Credits

AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	106	Aerospace Blueprint Reading	2
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/ Applications	2
EMP	100	Global Professional Standards	2

Total Credits 15

Composite Repair

Certificate of Completion

15 Credits

AVC	100	Aerospace Safety	1
AVC	103	Geometric Dimensioning & Tolerancing	1
CFT	140	Composite Inspection	2
CFT	141	Disassembly & Damage Removal Tech- niques	3
CFT	142	Composite Repair	4
CFT	143	Complex Composite Repairs	3
CFT	144	Electrical Bonding Repair	1

Total Credits 15

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Composite Technology	
\$30,010	\$14.43

Accreditations/Affiliations

The Composite Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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wac.edu



WATCWICHITA

Career Description

Dental Assistants perform a variety of patient care, office, and laboratory duties. They sterilize and disinfect instruments and equipment, prepare and lay out the instruments and materials required to treat each patient, and obtain and update patients' dental records. Assistants make patients comfortable in the dental chair and prepare them for treatment. During dental procedures, assistants work alongside the dentist to provide assistance. They hand instruments and materials to dentists and keep patients' mouths dry and clear by using suction hoses or other devices.

Program Features

This program provides the educational environment and experiences to prepare for employment as a dental assistant. The program graduate has the knowledge and skills necessary to assist during the delivery of dental care, perform supportive treatment procedures and basic business office tasks. Graduates may take the Dental Assisting National Board examination to become a Certified Dental Assistant (CDA).

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Dental Assistant Admission Checklist.

Costs *

Tuition	\$5,348.00
Fees	1,792.00
Lab Fees	1,666.00
Total	\$8,806.00

*Cost does not include online fees, books or tools

Start Dates

- August 2011
- August 2012

Associate of Applied Science 64 Credits

Required Technical Courses

DAS	102	Fundamentals in Dental Assisting I	3
DAS	107	Anatomy for Dental Assistants	1
DAS	108	Dental Health Education	2
DAS	111	Fundamentals in Dental Assisting II	2
DAS	112	Dental Materials I	3
DAS	115	Chairside Assisting I	4
DAS	118	Dental Radiology I	2
DAS	119	Dental Anatomy	2
DAS	125	Dental Science I	2
DAS	129	Dental Science II	1
DAS	132	Dental Materials II	2
DAS	135	Chairside Assisting II	3
DAS	138	Dental Radiology II	2
DAS	142	Dental Office Procedures	2
DAS	143	Dental Materials III	1
DAS	144	Clinical Experience I	4
DAS	145	Chairside Assisting III	1
DAS	155	Chairside Assisting IV	1
DAS	156	Clinical Experience II	4
DAS	214	Supragingival Scaling	4

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	3

Total 64

Accreditations/Affiliations

The Dental Assistant program is approved by the Kansas Board of Regents.

The program is also accredited by:

Commission on Dental Accreditation of the American Dental Association

211 E. Chicago Avenue
Chicago, IL 60611-2678
312.440.4653

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * **Placement for all employed in the military or continuing their education**

Dental Assistant	
16*	87.5%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Dental Assistant	
\$31,990	\$15.38

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Dental Assisting 2011-12 Technical Certificate

Career Description

Dental Assistants perform a variety of patient care, office, and laboratory duties. They sterilize and disinfect instruments and equipment, prepare and lay out the instruments and materials required to treat each patient, and obtain and update patients' dental records. Assistants make patients comfortable in the dental chair and prepare them for treatment. During dental procedures, assistants work alongside the dentist to provide assistance. They hand instruments and materials to dentists and keep patients' mouths dry and clear by using suction hoses or other devices.

Program Features

This program provides the educational environment and experiences to prepare for employment as a dental assistant. The program graduate has the knowledge and skills necessary to assist during the delivery of dental care, perform supportive treatment procedures and basic business office tasks. Graduates may take the Dental Assisting National Board examination to become a Certified Dental Assistant (CDA).

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Dental Assistant Admission Checklist.

Costs *

Tuition	\$3,988.00
Fees	1,232.00
Lab Fees	1,442.00
Total	\$6,662.00

*Cost does not include online fees, books or tools

Start Dates

August 2011

August 2012

Technical Certificate

44 Credits

Required Technical Courses

DAS	102	Fundamentals in Dental Assisting I	3
DAS	107	Anatomy for Dental Assistants	1
DAS	108	Dental Health Education	2
DAS	111	Fundamentals in Dental Assisting II	2
DAS	112	Dental Materials I	3
DAS	115	Chairside Assisting I	4
DAS	118	Dental Radiology I	2
DAS	119	Dental Anatomy	2
DAS	125	Dental Science I	2
DAS	129	Dental Science II	1
DAS	132	Dental Materials II	2
DAS	135	Chairside Assisting II	3
DAS	138	Dental Radiology II	2
DAS	142	Dental Office Procedures	2
DAS	143	Dental Materials III	1
DAS	144	Clinical Experience I	4
DAS	145	Chairside Assisting III	1
DAS	155	Chairside Assisting IV	1
DAS	156	Clinical Experience II	4

Required General Education Courses

CED	101	Computer Essentials	2
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Total **44**

Accreditations/Affiliations

The Dental Assistant program is approved by the Kansas Board of Regents.

The program is also accredited by:

Commission on Dental Accreditation of the American Dental Association

211 E. Chicago Avenue
Chicago, IL 60611-2678
312.440.4653

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * **Placement for all employed in the military or continuing their education**

Dental Assistant	
16*	87.5%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Dental Assistant	
\$31,990	\$15.38

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
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Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a product or part. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers or scientists. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Program Features

Engineering Design Technology is an interdisciplinary curriculum that prepares graduates for a variety of positions in manufacturing design. All students complete a core set of courses selected to provide a well-rounded understanding of design. Topics include hands-on instruction in current technical competency areas including Computer Aided Drafting (CAD), Machine and Tool Design, Computer Numerical Control (CNC), Electrical Design, 3-D Solid Modeling, CATIA and ENOVIA LCA. CATIA and ENOVIA courses are taught in conjunction with the National Institute of Aviation Research (NIAR). Students can round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree. This track provides a broad base for machining design students that includes coursework in Industrial Materials, Technical Drafting, Machine Drafting and Design, CAD and CATIA introductory courses.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Start Dates

August 2011 **October 2011**
January 2012 **March 2012**
June 2012

Associate of Applied Science		62 Credits	
Required Technical Courses			
CAT	101	CATIA Part Design & Sketcher	4
CAT	102	CATIA Drafting	4
CAT	105	CATIA Assembly Design	4
CAT	110	CATIA Wireframe & Surfaces	4
CAT	115	CATIA Prismatic Machining	4
EMP	100	Global Professional Standards	2
MCD	110	Principles of Tool Design	2
MCD	113	Technical Drafting	3
MCD	115	Machine Drafting & Design	3
MCD	116	Introduction to CAD	5
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
Required General Education Courses			
CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHS	120	General Physics I	5
		OR	
PHS	110	Physical Science	
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	
Total			62

Costs *

Tuition	\$8,182.000
Fees	1,736.00
Lab Fees	1,038.00
Total	\$10,956.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Mechanical Engineering Design Technology program is approved by the Kansas Board of Regents.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Mechanical Engineering Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

Program Advisory Committee members, who are knowledgeable about the labor market and career advancement opportunities, provided the following wage information. Benefits may not be included in salary information.

Annually	Hourly
Mechanical Engineering Design	
\$42,870	\$21.87



Mechanical Engineering Design Technology 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a product or part. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers or scientists. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Program Features

Engineering Design Technology is an interdisciplinary curriculum that prepares graduates for a variety of positions in manufacturing design. All students complete a core set of courses selected to provide a well-rounded understanding of design. Topics include hands-on instruction in current technical competency areas including Computer Aided Drafting (CAD), Machine and Tool Design, Computer Numerical Control (CNC), Electrical Design, 3-D Solid Modeling, CATIA and ENOVIA LCA. CATIA and ENOVIA courses are taught in conjunction with the National Institute of Aviation Research (NIAR). This track provides a broad base for machining design students that includes coursework in Industrial Materials, Technical Drafting, Machine Drafting and Design, CAD and CATIA introductory courses.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Mechanical Engineering Design Technology program is approved by the Kansas Board of Regents.

Technical Certificate		44 Credits	
Required Technical Courses			
CAT	101	CATIA Part Design & Sketcher	4
CAT	102	CATIA Drafting	4
CAT	105	CATIA Assembly Design	4
CAT	110	CATIA Wireframe & Surfaces	4
EMP	100	Global Professional Standards	2
MCD	110	Principles of Tool Design	2
MCD	113	Technical Drafting	3
MCD	115	Machine Drafting & Design	3
MCD	116	Introduction to CAD	5
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
Required General Education Courses			
MTH	101	Intermediate Algebra	3
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	3
Total			44

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Costs *

Tuition	\$6,490.00
Fees	1,232.00
Lab Fees	786.00
Total	\$8,508.00

*Cost does not include online fees, books or tools

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Mechanical Engineering Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

Program Advisory Committee members, who are knowledgeable about the labor market and career advancement opportunities, provided the following wage information. Benefits may not be included in salary information.

Annually	Hourly
Mechanical Engineering Design	
\$42,870	\$21.87

Electromechanical Systems

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Program Description

Electromechanical Systems program provides the solid foundational knowledge and skills necessary to succeed in the mechanical and automated manufacturing environment. Graduates will learn to analyze, troubleshoot, and align mechanical and automated industrial machinery. Program course work includes electronics, industrial wiring, motor controls, programmable logic controls, instrumentation, industrial fluid power, manufacturing automation concepts, and robotics. Students will round off their educational experience by completing general education courses in five areas of study including mathematics, natural and social sciences, English and Communications.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs

Tuition	\$7,006.00
Fees	1,820.00
Lab Fees	1,522.00
Total	\$10,348.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science

65 Credits

Required Technical Courses

IND	100	Industrial Safety Procedures	1
IND	102	Manufacturing Overview	1
IND	104	Drafting for Industrial Maintenance	1
IND	106	Direct & Alternating Current	4
IND	108	Industrial Wiring	2
IND	109	Basic Industrial Programmable Logic Controls	3
IND	110	DC & AC Motors	1
IND	112	Fundamentals of Motor Control	2
IND	113	Solid State & Digital Devices	3
IND	114	Magnetic Starters & Braking	2
IND	116	Advanced Motor Controls	3
IND	117	Variable Speed Motor Controls	2
IND	119	Industrial Precision Alignment	3
IND	121	Maintenance for Reliability	3
IND	123	Industrial Fluid Power & Pumping & Pipe Systems	4
IND	125	Industrial Computer Applications	1
IND	130	Industrial Mechanics	3
IND	131	Industrial Programmable Logic Controls	3
IND	132	Industrial Instrumentation	3
ROB	100	Introduction to Robotics	3

Required General Education Courses

ECO	105	Principles of Macroeconomics	3
ENG	101	Composition 101	3
MTH	112	College Algebra	3
PHS	120	General Physics I	3
SPH	101	Public Speaking	3

Technical Total

65

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Electromechanical Systems	
N/A	N/A

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Electromechanical Systems	
N/A	N/A

Electromechanical Systems 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Program Description

Electromechanical Systems program provides the solid foundational knowledge and skills necessary to succeed in the mechanical and automated manufacturing environment. Graduates will learn to analyze, troubleshoot, and align mechanical and automated industrial machinery. Program course work includes electronics, industrial wiring, motor controls, programmable logic controls, instrumentation, industrial fluid power, manufacturing automation concepts, and robotics.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs

Tuition	\$5,642.00
Fees	1,316.00
Lab Fees	1,032.00
Total	\$7,990.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

45 Credits

Required Technical Courses

IND	100	Industrial Safety Procedures	1
IND	104	Drafting for Industrial Maintenance	1
IND	106	Direct & Alternating Current	4
IND	108	Industrial Wiring	2
IND	109	Basic Industrial Programmable Logic Controls	3
IND	110	DC & AC Motors	1
IND	112	Fundamentals of Motor Control	2
IND	113	Solid State & Digital Devices	3
IND	114	Magnetic Starters & Braking	2
IND	116	Advanced Motor Controls	3
IND	117	Variable Speed Motor Controls	2
IND	119	Industrial Precision Alignment	3
IND	121	Maintenance for Reliability	3
IND	123	Industrial Fluid Power & Pumping & Pipe Systems	4
IND	125	Industrial Computer Applications	1
IND	130	Industrial Mechanics	3
IND	131	Industrial Programmable Logic Controls	3
IND	132	Industrial Instrumentation	3

Required General Education Courses

MTH	112	College Algebra	3
Technical Total			45

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Electromechanical Systems	
N/A	N/A

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Electromechanical Systems	
N/A	N/A

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

Starting a business is the dream of millions and may be the best path to personal and economic satisfaction. This program is designed to provide the vital skills and techniques required for success as an entrepreneur. Students receive training in the areas of entrepreneurship, Six Sigma, accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,240.00
Fees	1,764.00
Lab Fees	50.00
TOTAL	\$6,054.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Entrepreneurship program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Associate of Applied Science 63 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	140	Principles of Marketing	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHL	110	Ethics	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking	3

Required Technical Courses

ENT	110	Introduction to Entrepreneurship	3
ENT	115	Entrepreneurship II	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Natural Science (Minimum 5 Credit Hours Required)

BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
PHS	110	Physical Science	5

Total	63
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Entrepreneurship 2011-12 Certificate of Completion

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center
4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



Career Description

Starting a business is the dream of millions and may be the best path to personal and economic satisfaction. This program is designed to provide the vital skills and techniques required for success as an entrepreneur. Students receive training in the areas of entrepreneurship, Six Sigma, accounting, marketing, management, economics and finance.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,140.00
Fees	\$364.00
TOTAL	\$1,504.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Entrepreneurship program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Certificate of Completion		13 Credits	
Required Technical Courses			
ENT	110	Introduction to Entrepreneurship	3
ENT	115	Entrepreneurship II	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3
Total			13

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

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Mon-Thur 8am - 7pm
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watc.edu

WATCWICHITA



Career Description

Starting a business is the dream of millions and may be the best path to personal and economic satisfaction. This program is designed to provide the vital skills and techniques required for success as an entrepreneur. Students receive training in the areas of entrepreneurship, Six Sigma, accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$2,814.00
Fees	1,120.00
TOTAL	\$3,934.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Entrepreneurship program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Technical Certificate 40 Credits

Required General Education Courses

ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
BUS	104	Introduction to Business	3
BUS	125	Business Law	3
BUS	130	Personal Finance	3
BUS	140	Principles of Marketing	3
BUS	200	Principles of Management	3
CED	115	Computer Applications	3

Required Technical Courses

ENT	110	Introduction to Entrepreneurship	3
ENT	115	Entrepreneurship II	3
OPM	115	Introduction to Project Management	3
PSS	100	Six Sigma Yellow Belt	1
PSS	101	Six Sigma Green Belt Methods	3

Total 40

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Home Health Aide 2011-12 Certificate of Completion

Career Description

Home Health Aides and Personal and Home Care Aides help people who are disabled, chronically ill, or cognitively impaired and older adults, who may need assistance, live in their own homes or in residential facilities instead of in health facilities or institutions. They also assist people in hospices and day programs and help individuals with disabilities go to work and remain engaged in their communities. Most aides work with elderly or physically or mentally disabled clients who need more care than family or friends can provide. Others help discharge hospital patients who have relatively short-term needs.

Program Features

The Home Health Aide course prepares the certified nurse aide (CNA) to care for clients in community and home settings. Graduates may take an examination to become a certified home health aide. Documentation and identification of client needs is an important part of this course. Many home health aides are also hired to work at hospice agencies and with agencies working with children.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Home Health Aide Admission Checklist.

Costs *

Tuition	\$156.00
Fees	56.00
Lab Fees	89.00
Total	\$301.00

*Cost does not include online fees, books or tools

Certificate of Completion

2 Credits

Required Technical Courses

HHA 100 Home Health Aide	2
Total	2

Accreditations/Affiliations

The Home Health Aide program is approved by the Kansas Board of Regents.

The program is also approved by:

- Kansas Department of Health and Environment
1000 SW Jackson, Suite 200
Topeka, KS 66212-1365
785.296.0056

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Home Health Aide	
\$19,670	\$9.46

Start Dates

Multiple Entry Points Per Semester

Interior Design

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Interior Designers draw upon many disciplines to enhance the function, safety, and aesthetics of interior spaces. Their main concerns are with how different colors, textures, furniture, lighting, and space work together to meet the needs of a building's occupants.

Program Features

The Interior Design program provides competency-based training in research techniques, problem solving, proficiencies and presentation skills required to be a successful professional interior designer. The program focuses on creativity and critical thinking. Students learn the basics of interior design, including the principles and elements of design; blueprint reading; building technology; color theory; materials; fabrics; history of furniture and architecture; lighting technologies; drawing for interiors; and business law for interiors. Students also gain practical experience, and throughout the program, they build a professional portfolio. Students completing the degree are eligible to take the national exam to become a licensed interior designer after appropriate completion of work experience as required by the National Council of Interior Design Qualifications (NCIDQ).

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5062.00
Fees	1,820.00
Lab Fees	348.00
Total	\$7,230.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 65 Credits

Required Technical Courses

INT	101	Interior Design Fundamentals	2
INT	105	Blueprint Reading for Interior Design	2
INT	110	Color Theory	2
INT	126	Textiles	3
INT	127	Materials for Interior Environments	2
INT	145	History of Furniture & Architecture I	3
INT	150	History of Furniture & Architecture II	3
INT	155	Lighting Technologies	3
INT	160	Design Studio I	3
INT	165	Design Studio II	2
INT	170	Business Practices & Portfolio Development	3
INT	175	Seminars for Interior Design	2
INT	185	Mentorship	3
INT	190	Drafting for Interiors	2
INT	196	Interior Design Codes & Standards	3
MCD	116	Introduction to CAD	5

Required General Education Courses

ART	100	Art Appreciation	3
CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
SPH	101	Public Speaking	3

Elective (Minimum of 4 credits required)

INT	100	Accessories	1
INT	131	Faux & Decorative Painting	4
INT	201	Floral Design	4
INT	215	Kitchen & Bath Design	3
INT	225	Advanced Kitchen & Bath Design	3
INT	235	Computer Technologies for Kitchen & Bath	3
INT	245	Internship for Kitchen & Bath Design	3
MCD	132	Basic Chief Architect/Architectural Desktop	3

Total 65

Accreditations/Affiliations

The Interior Design program is approved by the Kansas Board of Regents.

The program is affiliated with:

- International Interior Design Association
222 Merchandise Mart, Suite 567
Chicago, IL 60654
www.iida.org

This program qualifies for:

- National Council for Interior Designers Qualifications
1602 L Street, Suite 200
Washington, DC 20036-2506
www.ncidq.org

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or
Graduates* Placement for all employed in the military or
 continuing their education

Interior Design	
4*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Interior Design	
\$42,400	\$20.38

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Interior Design Kitchen & Bath Design 2011-12 Technical Certificate

Career Description

Interior Designers draw upon many disciplines to enhance the function, safety, and aesthetics of interior spaces. Their main concerns are with how different colors, textures, furniture, lighting, and space work together to meet the needs of a building's occupants.

Program Features

The Interior Design program provides competency-based training in research techniques, problem solving, proficiencies and presentation skills required to be a successful professional interior designer. The program focuses on creativity and critical thinking. Students learn the basics of interior design, including the principles and elements of design; blueprint reading; building technology; color theory; materials; fabrics; history of furniture and architecture; lighting technologies; drawing for interiors; and business law for interiors. Students also gain practical experience, and throughout the program, they build a professional portfolio.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$3,368.00
Fees	1,148.00
Lab Fees	299.00
Total	\$4,815.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

41 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
INT	101	Interior Design Fundamentals	2
INT	105	Blueprint Reading for Interior Design	2
INT	110	Color Theory	2
INT	127	Materials for Interior Environments	2
INT	155	Lighting Technologies	3
INT	170	Business Practices & Portfolio Development	3
INT	190	Drafting for Interiors	2
INT	215	Kitchen & Bath Design	3
INT	225	Advanced Kitchen & Bath Design	3
INT	235	Computer Technologies for Kitchen & Bath	3
INT	245	Internship for Kitchen & Bath Design	3
MCD	116	Introduction to CAD	5

Required General Education Courses

MTH	101	Intermediate Algebra	3
SPH	101	Public Speaking	3

Total **41**

Accreditations/Affiliations

The Interior Design program is approved by the Kansas Board of Regents.

The program is affiliated with:

- International Interior Design Association
222 Merchandise Mart, Suite 567
Chicago, IL 60654
www.iida.org

This program qualifies for:

- National Council for Interior Designers Qualifications
1602 L Street, Suite 200
Washington, DC 20036-2506
www.ncidq.org

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or
Graduates* Placement for all employed in the military or
 continuing their education

Interior Design	
4*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Interior Design	
\$42,400	\$20.38

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Interior Design Faux and Decorative Painting 2011-12 Certificate of Completion

Program Features

This course is an introduction to the techniques used to produce painted finishes on furniture and interior walls. 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, textured granites, stones, and other techniques. Various types of paints, glazes, brushes, and other faux tools will be utilized in this course. It will also introduce students to basic business practices for painted and faux finishing, book keeping, and pricing for techniques. Upon completion of the course, the student will be able to produce a wide variety of finishes such as marble, wood graining, semiprecious stones through paint applications.

Admission Requirements

- In addition to the college's admissions policy, students must:
- Submit an application for admission.
 - Be 16 years of age or older.
 - Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
 - Meet entrance exam requirements.

Costs *

Tuition	\$312.00
Fees	112.00
Total	\$424.00

*Cost does not include online fees, books, tools, or supplies

Start Dates

- Summer 2011
- Summer 2012
- Summer 2013

Certificate of Completion

4 Credits

Required Technical Course

INT	131	Faux & Decorative Painting	4
Total			4

Accreditations/Affiliations

The Interior Design program is approved by the Kansas Board of Regents.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Interior Design Floral Design 2011-12 Certificate of Completion

Career Description

Floral design is the art of using plant materials and flowers to create a pleasing and balanced composition. Evidence of refined floristry is found as far back as the culture of Ancient Egypt. Professionally designed floral designs, arrangements or artwork incorporate the elements of floral design: Line, Form, Space, Texture and Color and the Principles of Floral Design: Balance, Proportion, Rhythm, Contrast, Harmony and Unity.

Program Features

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 work in 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.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$312.00
Fees	112.00
Lab Fees	580.00
Total	\$1,004.00

*Cost does not include online fees, books or tools

Start Dates

January 2012
January 2013

Certificate of Completion

4 Credits

Required Technical Course

INT 201 Floral Design	4
Total	4

Accreditations/Affiliations

The Interior Design program is approved by the Kansas Board of Regents.

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
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Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Career Description

Lean manufacturing or lean production, often simply, "Lean," is a production practice that considers the expenditure of resources for any goal other than the creation of value for the end customer to be wasteful, and thus a target for elimination. Working from the perspective of the customer who consumes a product or service, "value" is defined as any action or process that a customer would be willing to pay for.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Meet entrance exam requirements.

Costs *

Tuition	\$1,395.00 = \$1,449.00
Fees	420.00
TOTAL	\$1,815.00 = \$1,869.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Accreditations/Affiliations

The Lean program is approved by the Kansas Board of Regents and is fully accredited by The Higher Learning Commission and a member of the North Central Association.

Certificate of Completion 15 Credits

Required Technical Courses

LEN	100	Lean for Operations	3
		OR	
LEN	109	Lean for Engineering	
		OR	
LEN	110	Lean for Services - Offices	
LEN	105	Lean Culture - People Systems	3
LEN	106	Value Stream Alignment	3

Electives (Minimum 6 credits required)

LEN	100	Lean for Operations	3
LEN	109	Lean for Engineering	3
LEN	110	Lean for Services - Offices	3
OPM	100	Lean Sigma	3
OPM	105	Operations Management for Organizational Success	3
OPM	110	Introduction to Supply Chain Management	3
OPM	115	Introduction to Project Management	3
PSS	101	Six Sigma Green Belt Methods	3
PSS	105	Six Sigma Green Belt Statistics	3

Total	15
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Machining Technology

Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Machinists use machine tools, such as lathes, milling machines, and grinders, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. They use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications.

Program Features

This program provides students the skills and knowledge needed in various manufacturing procedures and operations, including lathe and mill operations and manual and Computer Numerical Control (CNC) machining operations. Program includes classroom and laboratory instruction in safety, proper use of hand and power tools, blueprint reading and sketching, precision measuring and layout, setup, operation, clean-up and basic maintenance of lathes, milling machines and surface grinders with extra emphasis on CNC set up and operation.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$7,972.00-\$7,996.00
Fees	\$1,736.00-\$1,764.00
Lab Fees	\$2,172.00-\$2,505.00
TOTAL	\$11,874.00-\$12,223.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Associate of Applied Science 62 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
CAT	101	CATIA Parts Design and Sketcher	4
CAT	105	CATIA Assembly Design	4
CAT	115	CATIA Prismatic Machining	4
MMG	102	Blueprint Reading 1	2
MMG	142	Manual Lathes	6
MMG	143	Manual Mills	6
MMG	144	CNC Mills	6
MMG	152	CNC Lathes	6

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	English Composition 1	3
MTH	112	College Algebra	3
PSY	101	General Psychology OR	3
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking OR	3
SPH	111	Interpersonal Communications	3

Required Electives (Minimum 7 Credit hours)

CAT	124	CATIA Surface Machining	3
CWG	110	Welding Applications	4
MCD	201	Geometric Dimensioning & Tolerancing	3
MMG	225	Machining Internship	4

Total Credit Hours 62

Accreditations/Affiliations

The Machining Technology program is approved by the Kansas Board of Regents.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Machining Technology	
9*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Machining Technology	
\$42,250	\$20.31

Machining Technology Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Machinists use machine tools, such as lathes, milling machines, and grinders, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. They use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications.

Program Features

This program provides students the skills and knowledge needed in various manufacturing procedures and operations, including lathe and mill operations and manual and Computer Numerical Control (CNC) machining operations. Program includes classroom and laboratory instruction in safety, proper use of hand and power tools, blueprint reading and sketching, precision measuring and layout, setup, operation, clean-up and basic maintenance of lathes, milling machines and surface grinders with extra emphasis on CNC set up and operation.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,470.00
Fees	\$1,288.00
Lab Fees	\$2,172.00
TOTAL	\$9,930.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Technical Certificate

40 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
CAT	101	CATIA Parts Design and Sketcher	4
CAT	105	CATIA Assembly Design	4
CAT	115	CATIA Prismatic Machining	4
MMG	102	Blueprint Reading 1	2
MMG	142	Manual Lathes	6
MMG	143	Manual Mills	6
MMG	144	CNC Mills	6
MMG	152	CNC Lathes	6

Required General Education Courses

EBS	115	Pre-Algebra Math	3
SPH	101	Public Speaking OR	3
SPH	111	Interpersonal Communications	3

Total Credit Hours

40

Accreditations/Affiliations

The Machining Technology program is approved by the Kansas Board of Regents.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Machining Technology	
9*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Machining Technology	
\$42,250	\$20.31

Manufacturing Engineering Technology Industrial Engineering Technician Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA. Students can round off their educational experience by completing 17 credit hours of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$7,068.00
Fees	1,764.00
Lab Fees	854.00
Total	\$9,686.00

*Cost does not include online fees, books or tools

Associate of Applied Science 63 Credits

Required Technical Courses

CAT	101	CATIA Part Design & Sketcher	4
CAT	122	CATIA ENOVIA DMU	2
EMP	100	Global Professional Standards	2
IND	109	Basic Industrial Programmable Logic Controls	3
MCD	116	Introduction to CAD	5
MET	101	Fundamentals of Quality Control	3
MET	105	Quality Assurance	3
MET	110	Manufacturing Processes I	3
MET	115	Environmental Health & Safety	3
MET	160	Engineering Materials & Testing	3
MET	170	Facilities Planning	3
MET	172	Manufacturing Production Management	3
MMG	144	CNC Mills	6

Required General Education Courses

BUS	200	Principles of Management	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHS	120	General Physics I	5
		OR	
PHS	110	Physical Science	
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Total 63

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34



Manufacturing Engineering Technology Industrial Engineering Technician Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

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4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus
301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,014.00
Fees	1,288.00
Lab Fees	804.00
Total	\$8,106.00

*Cost does not include online fees, books or tools

Technical Certificate

46 Credits

Required Technical Courses

CAT	101	CATIA Part Design & Sketcher	4
CAT	122	CATIA ENOVIA DMU	2
EMP	100	Global Professional Standards	2
IND	109	Basic Industrial Programmable Logic Controls	3
MCD	116	Introduction to CAD	5
MET	101	Fundamentals of Quality Control	3
MET	105	Quality Assurance	3
MET	110	Manufacturing Processes I	3
MET	115	Environmental Health & Safety	3
MET	160	Engineering Materials & Testing	3
MET	170	Facilities Planning	3
MET	172	Manufacturing Production Management	3
MMG	144	CNC Mills	6

Required General Education Courses

BUS	200	Principles of Management	3
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Total **46**

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34

Manufacturing Engineering Technology Manufacturing Engineering Technician 2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA. Students can round off their educational experience by completing 17 credit hours of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$7,955.00
Fees	1,764.00
Lab Fees	1,854.00
Total	\$11,573.00

*Cost does not include online fees, books or tools

Associate of Applied Science 63 Credits

Required Technical Courses

CAT	101	CATIA Part Design & Sketcher	4
CAT	105	CATIA Assembly Design	4
CAT	115	CATIA Prismatic Machining	4
CAT	122	CATIA ENOVIA DMU	2
CFT	101	Introduction to Composites	2
CWG	110	Welding Applications	4
EMP	100	Global Professional Standards	2
IND	106	Direct & Alternating Current	4
IND	123	Industrial Fluid Power & Pumping & Piping Systems	4
MCD	116	Introduction to CAD	5
MMG	102	Blueprint Reading I	2
MMG	144	CNC Mills	6
NDT	114	Visual Inspection	3

Required General Education Courses

ENG	101	Composition I	3
MTH	112	College Algebra	3
PHS	120	General Physics I	5
		OR	
PHS	110	Physical Science	
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Total 63

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34



Manufacturing Engineering Technology Manufacturing Engineering Technician 2011-12 Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,901.00
Fees	1,288.00
Lab Fees	1,804.00
Total	\$9,993.00

*Cost does not include online fees, books or tools

Technical Certificate

46 Credits

Required Technical Courses

CAT	101	CATIA Part Design & Sketcher	4
CAT	105	CATIA Assembly Design	4
CAT	115	CATIA Prismatic Machining	4
CAT	122	CATIA ENOVIA DMU	2
CFT	101	Introduction to Composites	2
CWG	110	Welding Applications	4
EMP	100	Global Professional Standards	2
IND	106	Direct & Alternating Current	4
IND	123	Industrial Fluid Power & Pumping & Piping Systems	4
MCD	116	Introduction to CAD	5
MMG	102	Blueprint Reading I	2
MMG	144	CNC Mills	6
NDT	114	Visual Inspection	3
Total			46

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34

Manufacturing Engineering Technology Quality Engineering Technician Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

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WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA. Students can round off their educational experience by completing 17 credit hours of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,175.00
Fees	1,736.00
Lab Fees	382.00
Total	\$8,293.00

*Cost does not include online fees, books or tools

Associate of Applied Science 62 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
LEN	100	Lean for Operations	3
MCD	116	Introduction to CAD	5
MET	101	Fundamentals of Quality Control	3
MET	105	Quality Assurance	3
MET	110	Manufacturing Processes I	3
MET	115	Environmental Health & Safety	3
MET	135	Designs of Experiments	3
MET	140	Quality Auditing	3
MET	145	Organizational Behavior	3
MET	147	Statistical Quality Control	3
MET	160	Engineering Materials & Testing	3
MET	172	Manufacturing Production Management	3

Required General Education Courses

CED	101	Computer Essentials	2
ENG	101	Composition I	3
MTH	112	College Algebra	3
MTH	120	Elementary Statistics	3
PHS	120	General Physics I	5
		OR	
PHS	110	Physical Science	
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3

Total 62

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34



Manufacturing Engineering Technology Quality Engineering Technician Technical Certificate

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT
4004 N. Webb Rd.
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WATCWICHITA

Career Description

Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more narrowly focused and application-oriented than that of scientists and engineers.

Program Features

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3-D solid modeling and CATIA.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,307.00
Fees	1,344.00
Lab Fees	332.00
Total	\$6,983.00

*Cost does not include online fees, books or tools

Technical Certificate

48 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
LEN	100	Lean for Operations	3
MCD	116	Introduction to CAD	5
MET	101	Fundamentals of Quality Control	3
MET	105	Quality Assurance	3
MET	110	Manufacturing Processes I	3
MET	115	Environmental Health & Safety	3
MET	135	Designs of Experiments	3
MET	140	Quality Auditing	3
MET	145	Organizational Behavior	3
MET	147	Statistical Quality Control	3
MET	160	Engineering Materials & Testing	3
MET	172	Manufacturing Production Management	3

Required General Education Courses

CED	101	Computer Essentials	2
MTH	112	College Algebra	3
MTH	120	Elementary Statistics	3

Total

48

Accreditations/Affiliations

The Manufacturing Engineering Technology Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Manufacturing Engineering	
N/A*	New Program

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Manufacturing Engineering	
\$50,640	\$24.34

Mechanical Design Technology

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Career Description

Drafters' drawings provide visual guidelines and show how to construct a product or part. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers or scientists. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Program Features

Engineering Design Technology is an interdisciplinary curriculum that prepares graduates for a variety of positions in manufacturing design. All students complete a core set of courses selected to provide a well-rounded understanding of design. Topics include hands-on instruction in current technical competency areas including Computer Aided Drafting (CAD), Machine and Tool Design, Computer Numerical Control (CNC), Electrical Design, 3-D Solid Modeling, CATIA and ENOVIA LCA. CATIA and ENOVIA courses are taught in conjunction with the National Institute of Aviation Research (NIAR). Students can round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree. This track provides a broad base for machining design students that includes coursework in Industrial Materials, Technical Drafting, Machine Drafting and Design, CAD and CATIA introductory courses.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Start Dates

August 2011 **October 2011**
January 2012 **March 2012**
June 2012

Associate of Applied Science		61 Credits	
Required Technical Courses			
CAT	101	CATIA Part Design & Sketcher	4
CAT	105	CATIA Assembly Design	4
EMP	100	Global Professional Standards	2
MCD	110	Principles of Tool Design	2
MCD	112	Industrial Materials & Processes	2
MCD	113	Technical Drafting	3
MCD	114	Architectural Drafting & Design	3
MCD	115	Machine Drafting & Design	3
MCD	116	Introduction to CAD	5
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
MCD	140	Drafting Technology Internship	4
MCD	201	Geometric Dimensioning & Tolerance	3
Required General Education Courses			
CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
		OR	
SOC	101	Principles of Sociology	
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communications	
Elective (Minimum of 4 credits required)			
CWG	110	Welding Applications	4
CAT	102	CATIA Drafting	4
CAT	110	CATIA Wireframe & Surfaces	4
CAT	115	CATIA Prismatic Machining	4
Total			61

Costs *

Tuition	\$8,182.00
Fees	1,736.00
Lab Fees	1,038.00
Total	\$10,956.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Mechanical Design Technology program is approved by the Kansas Board of Regents.

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Mechanical Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Mechanical Design Technology	
\$42,460	\$20.41

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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WATCWICHITA

Mechanical Design Technology 2011-12 Technical Certificate

Career Description

Drafters' drawings provide visual guidelines and show how to construct a product or part. Drawings include technical details and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, and calculations made by engineers or scientists. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Program Features

Engineering Design Technology is an interdisciplinary curriculum that prepares graduates for a variety of positions in manufacturing design. All students complete a core set of courses selected to provide a well-rounded understanding of design. Topics include hands-on instruction in current technical competency areas including Computer Aided Drafting (CAD), Machine and Tool Design, Computer Numerical Control (CNC), Electrical Design, 3-D Solid Modeling, CATIA and ENOVIA LCA. CATIA and ENOVIA courses are taught in conjunction with the National Institute of Aviation Research (NIAR). Students can round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree. This track provides a broad base for machining design students that includes coursework in Industrial Materials, Technical Drafting, Machine Drafting and Design, CAD and CATIA introductory courses.

Admission Requirements

In addition to the college's admissions policy, students must:

- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Mechanical Design Technology program is approved by the Kansas Board of Regents.

Technical Certificate		43 Credits	
Required Technical Courses			
CAT	101	CATIA Part Design & Sketcher	4
CAT	105	CATIA Assembly Design	4
EMP	100	Global Professional Standards	2
MCD	110	Principles of Tool Design	2
MCD	112	Industrial Materials & Processes	2
MCD	113	Technical Drafting	3
MCD	114	Architectural Drafting & Design	3
MCD	115	Machine Drafting & Design	3
MCD	116	Introduction to CAD	5
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
Required General Education Courses			
CED	101	Computer Essentials	2
MTH	101	Intermediate Algebra	3
SPH	101	Public Speaking	3
		OR	
SPH	111	Interpersonal Communication	
Total			43

Start Dates

August 2011
January 2012
June 2012

October 2011
March 2012

Costs *

Tuition	\$6,490.00
Fees	1,232.00
Lab Fees	786.00
Total	\$8,508.00

*Cost does not include online fees, books or tools

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Mechanical Design Technology	
7*	71.4%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages. WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Mechanical Design Technology	
\$42,460	\$20.41

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
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Friday 8am - 5pm

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watc.edu



WATCWICHITA

Medical Assisting 2011-12 Associate of Applied Science

Career Description

Medical Assistants perform administrative and clinical tasks to keep the offices of physicians, podiatrists, chiropractors, and other health practitioners running smoothly. The duties of medical assistants vary from office to office, depending on the location and size of the practice and the practitioner's specialty. In small practices, medical assistants usually do many different kinds of tasks, handling both administrative and clinical duties and reporting directly to an office manager, physician, or other health practitioner.

Program Features

Graduates of the program may take the American Association of Medical Assistants (AAMA) National Certification Examination to become Certified Medical Assistants.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Medical Assistant Admission Checklist.

Costs *

Tuition	\$5,231.00
Fees	1,708.00
Lab Fees	2,030.00
Total	\$8,969.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 61 Credits

Required Technical Courses

ALH	130	Emergency Preparedness for Health Professionals	1
ALH	131	Diseases, Disorders, & Diagnostic Procedures	2
EMP	105	Career Strategies	1
MEA	101	Professional Issues	2
MEA	111	Patient Care I	5
MEA	113	Medical Administrative Aspects	4
MEA	115	Insurance Billing & Coding	3
MEA	117	Pharmacology	4
MEA	121	Patient Care II	4
MEA	125	Clinical Laboratory Procedures	4
MEA	131	Medical Assistant Practicum	6
MEA	210	Advanced Procedures in Medical Assisting	4

Required General Education Courses

ALH	101	Medical Terminology	3
BIO	150	Human Anatomy & Physiology	5
CED	115	Computer Applications	3
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
MTH	112	College Algebra	3
SPH	101	Public Speaking	3

Total 61

Accreditations/Affiliations

The Medical Assistant program is approved by the Kansas Board of Regents.

The program is also accredited by:

The Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on the recommendation of the American Association of Medical Assistants' Medical Assisting Education Review Board (MAERB).

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Medical Assistant	
18*	88.9%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Medical Assistant	
\$35,620	\$16.72

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
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Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Medical Assisting 2011-12 Technical Certificate

Career Description

Medical Assistants perform administrative and clinical tasks to keep the offices of physicians, podiatrists, chiropractors, and other health practitioners running smoothly. The duties of medical assistants vary from office to office, depending on the location and size of the practice and the practitioner's specialty. In small practices, medical assistants usually do many different kinds of tasks, handling both administrative and clinical duties and reporting directly to an office manager, physician, or other health practitioner.

Program Features

Graduates of the program may take the American Association of Medical Assistants (AAMA) National Certification Examination to become Certified Medical Assistants.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Medical Assistant Admission Checklist.

Costs *

Tuition	\$4,265.00
Fees	1,344.00
Lab Fees	1,899.00
Total	\$7,508.00

*Cost does not include online fees, books or tools

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate

48 Credits

Required Technical Courses

ALH	130	Emergency Preparedness for Health Professionals	1
ALH	131	Diseases, Disorders, & Diagnostic Procedures	2
EMP	105	Career Strategies	1
MEA	101	Professional Issues	2
MEA	111	Patient Care I	5
MEA	113	Medical Administrative Aspects	4
MEA	115	Insurance Billing & Coding	3
MEA	117	Pharmacology	4
MEA	121	Patient Care II	4
MEA	125	Clinical Laboratory Procedures	4
MEA	131	Medical Assistant Practicum	6

Required General Education Courses

ALH	101	Medical Terminology	3
BIO	150	Human Anatomy & Physiology	5
CED	115	Computer Applications	3
CPR	001	CPR for Healthcare Providers	1

Total **48**

Accreditations/Affiliations

The Medical Assistant program is approved by the Kansas Board of Regents.

The program is also accredited by:

The Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on the recommendation of the American Association of Medical Assistants' Medical Assisting Education Review Board (MAERB).

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Medical Assistant	
18*	88.9%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Medical Assistant	
\$35,620	\$16.72

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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watc.edu



WATCWICHITA

Medical Coding 2011-12 Certificate of Completion

Career Description

Medical records and health information technicians' duties vary with the size of the facility where they work. Technicians can specialize in many aspects of health information. Some medical records and health information technicians specialize in codifying patients' medical information for reimbursement purposes. Technicians who specialize in coding are called *medical coders* or *coding specialists*. Medical coders assign a code to each diagnosis and procedure by using classification systems software. The classification system determines the amount for which healthcare providers will be reimbursed if the patient is covered by Medicare, Medicaid, or other insurance programs using the system. Coders may use several coding systems, such as those required for ambulatory settings, physician offices, or long-term care.

Program Features

The Medical Coding program prepares 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.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Medical Coding Admission Checklist.

Costs *

Tuition	\$806.00
Fees	364.00
Lab Fees	50.00
Total	\$1,220.00

*Cost does not include online fees, books or tools

Certificate of Completion

13 Credits

Required Technical Courses

MEC	101	Insurance Billing & Coding for the Physicians Office	4
-----	-----	--	---

General Education Courses (Pre-Requisites)

ALH	101	Medical Terminology	3
BIO	100	Biology Review	1
BIO	150	Human Anatomy & Physiology	5

Total 13

Accreditations/Affiliations

The Medical Coding program is approved by the Kansas Board of Regents.

The program is also approved by:

- Kansas Department of Health and Environment
1000 SW Jackson, Suite 200
Topeka, KS 66212-1365
785.296.0056

Annually Hourly

Medical Coding	
\$29,500	\$14.34

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Start Dates

Fall 2011

Spring 2012

Summer 2012

Nondestructive Testing

2011-12 Associate of Applied Science

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

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Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Because Nondestructive Testing (NDT) does not require the disabling or sacrifice of the system of interest, it is a highly valuable technique that saves both money and time in product evaluation, troubleshooting, and research. Therefore (NDT) technicians are increasingly in demand.

Program Features

The Nondestructive Testing program (NDT) is a cooperative effort between WATC and the National Institute for Aviation Research (NIAR). This program produces technicians who understand NDT's role in the aerospace industry and who have mastered the American Society for Nondestructive Testing's coursework for Level I and II certification in three NDT methods, including liquid penetrant, radiography and magnetic particle inspection. Students also learn the basics of materials and processes associated with NDT technology.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$7,431.00
Fees	1,764.00
Lab Fees	1,255.00
Total	\$10,450.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Nondestructive Testing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Associate of Applied Science 63 Credits

Required Technical Courses

AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
EMP	100	Global Professional Standards	2
CFT	101	Introduction to Composites	2
NDT	100	Penetrant Inspection	2
NDT	101	Magnetic Particle Testing Method for NDT	3
NDT	102	Radiographic Testing Method I	3
NDT	103	Radiographic Testing Method II	3
NDT	104	Materials & Processes for NDT Technology	3
NDT	110	Eddy Current Level I	3
NDT	111	Eddy Current Level II	3
NDT	112	Ultrasonic Testing Method Level I	3
NDT	113	Ultrasonic Testing Method Level II	3
NDT	114	Visual Inspection	3
NDT	116	Bond Testing for NDT	3
NDT	117	Assembly Overview for NDT	3

Required General Education Courses

CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	112	College Algebra	3
PHS	110	Physical Science	5
SOC	101	Principles of Sociology	3
		OR	
PSY	101	General Psychology	
SPH	111	Interpersonal Communications	3
		OR	
SPH	101	Public Speaking	

Total 63

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Nondestructive Testing	
6*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Nondestructive Testing	
\$47,400	\$22.80

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

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Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Because Nondestructive Testing (NDT) does not require the disabling or sacrifice of the system of interest, it is a highly valuable technique that saves both money and time in product evaluation, troubleshooting, and research. Therefore (NDT) technicians are increasingly in demand.

Program Features

The Nondestructive Testing program (NDT) is a cooperative effort between WATC and the National Institute for Aviation Research (NIAR). This program produces technicians who understand NDT's role in the aerospace industry and who have mastered the American Society for Nondestructive Testing's coursework for Level I and II certification in three NDT methods, including liquid penetrant, radiography and magnetic particle inspection. Students also learn the basics of materials and processes associated with NDT technology.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Intro to Nondestructive Testing

Tuition	\$2,170.00
Fees	392.00
Lab Fees	391.00
Total	\$2,953.00

*Cost does not include online fees, books or tools

Advanced Nondestructive Testing

Tuition	\$2,325.00
Fees	420.00
Lab Fees	337.00
Total	\$3,082.00

*Cost does not include online fees, books or tools

Introduction to Nondestructive Testing

NDT	100	Penetrant Inspection	2
NDT	101	Magnetic Particle Testing Method for NDT	3
NDT	102	Radiographic Testing Method I	3
NDT	103	Radiographic Testing Method II	3
NDT	104	Materials & Processes for NDT Technology	3
Total			14

Advanced Nondestructive Testing

NDT	110	Eddy Current Level I	3
NDT	111	Eddy Current Level II	3
NDT	112	Ultrasonic Testing Method Level I	3
NDT	113	Ultrasonic Testing Method Level II	3
NDT	114	Visual Inspection	3
Total			15

Accreditations/Affiliations

The Nondestructive Testing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Nondestructive Testing	
6*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Nondestructive Testing	
\$47,400	\$22.80

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

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WATCWICHITA

Career Description

Because Nondestructive Testing (NDT) does not require the disabling or sacrifice of the system of interest, it is a highly valuable technique that saves both money and time in product evaluation, troubleshooting, and research. Therefore (NDT) technicians are increasingly in demand.

Program Features

The Nondestructive Testing program (NDT) is a cooperative effort between WATC and the National Institute for Aviation Research (NIAR). This program produces technicians who understand NDT's role in the aerospace industry and who have mastered the American Society for Nondestructive Testing's coursework for Level I and II certification in three NDT methods, including liquid penetrant, radiography and magnetic particle inspection. Students also learn the basics of materials and processes associated with NDT technology.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$6,367.00
Fees	1,260.00
Lab Fees	1,240.00
Total	\$8,832.00

*Cost does not include online fees, books or tools

Accreditations/Affiliations

The Nondestructive Testing Program is accredited by the Higher Learning Commission of the North Central Association.

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Technical Certificate		45 Credits	
Required Technical Courses			
AVC	100	Aerospace Safety	1
AVC	101	Applied Shop Math	2
AVC	102	Precision Instruments	1
EMP	100	Global Professional Standards	2
CFT	101	Introduction to Composites	2
NDT	100	Penetrant Inspection	2
NDT	101	Magnetic Particle Testing Method for NDT	3
NDT	102	Radiographic Testing Method I	3
NDT	103	Radiographic Testing Method II	3
NDT	104	Materials & Processes for NDT Technology	3
NDT	110	Eddy Current Level I	3
NDT	111	Eddy Current Level II	3
NDT	112	Ultrasonic Testing Method Level I	3
NDT	113	Ultrasonic Testing Method Level II	3
NDT	114	Visual Inspection	3
NDT	116	Bond Testing for NDT	3
NDT	117	Assembly Overview for NDT	3
Required General Education Courses			
GED	101	Computer Essentials	2
Total		45	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Nondestructive Testing	
6*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Nondestructive Testing	
\$47,400	\$22.80

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu

WATCWICHITA



Licensed Practical Nurse 2011-12 Technical Certificate

Career Description

A Practical Nurse is a vital member of the health-care team who provides nursing care to selected patients under the supervision of a Registered Nurse or Physician. The Practical Nurse utilizes technical knowledge and skills to meet the health needs of people in a variety of settings. Practical Nurses are employed primarily in nursing homes and hospitals. They may also be employed in clinics, physicians' offices, home health agencies and temporary nursing service agencies.

Program Features

The Practical Nurse program provides the common body of knowledge and skills essential for the practical nurse's entry into practice. The curriculum fulfills the educational requirements for licensure as a licensed practical nurse (LPN). Upon completion of the program, graduates are eligible to take the NCLEX-PN examination. Curriculum and schedule are subject to change based on clinical availability. Students may request consideration for advanced placement by submitting an official transcript of coursework. This program does not offer credit for experiential learning. There are pathways for articulation to degree nursing programs.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Practical Nurse Admission Checklist.

Costs *

Tuition	\$4,256.00
Fees	1,344.00
Lab Fees	1,338.00
Total	\$6,938.00

*Cost does not include online fees, books or tools

Technical Certificate

48 Credits

Required Technical Courses

PNR	120	KSPN Foundations of Nursing	4
PNR	121	KSPN Foundations of Nursing Clinical	2
PNR	122	Pharmacology	3
PNR	123	KSPN Medical Surgical Nursing I	4
PNR	124	KSPN Medical Surgical Nursing I Clinical	3
PNR	126	KSPN Medical Surgical Nursing II	4
PNR	127	KSPN Medical Surgical Nursing II Clinical	3
PNR	130	KSPN Maternal Child Nursing	2
PNR	131	KSPN Maternal Child Nursing Clinical	1
PNR	132	KSPN Gerontology Nursing	2
PNR	134	Role Development	2
PNR	135	KSPN Mental Health Nursing	2

Required General Education Courses

ALH	110	Principles of Nutrition	3
BIO	150	Human Anatomy & Physiology	5
CED	101	Computer Essentials	2
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3

Total

48

Accreditations/Affiliations

The Practical Nurse program is approved by the Kansas Board of Regents.

The program is also accredited by:
National League for Nursing Accrediting Commission, Inc.
3343 North Peachtree Road, Suite 850
Atlanta, GA 30326

The program is also approved by:
Kansas State Board of Nursing
900 S.W. Jackson, Suite 1051
Topeka, KS 66612-1230

Start Dates

August 2011 October 2011
January 2012 March 2012
June 2012

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Licensed Practical Nurse	
81*	100%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2008); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Licensed Practical Nurse	
\$39,030	\$18.76

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA

Career Description

Phlebotomists collect blood primarily by performing venipuncture and, for collection of minute quantities of blood, fingersticks. Blood may be collected from infants by means of a heel stick. Specially trained phlebotomists collect arterial blood samples from the radial artery of the wrist or brachial artery in the antecubital area (bend in the arm).

Program Features

The Phlebotomy program provides the education and experience necessary to perform laboratory specimen collection in clinical and reference laboratories, physician's offices and donor collection centers. Graduates are eligible to take national certification examinations offered by various certification organizations.

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Phlebotomy Admission Checklist.

Costs *

Tuition	\$804.00
Fees	336.00
Lab Fees	901.00
Total	\$2,041.00

*Cost does not include online fees, books or tools

Certificate of Completion		12 Credits
Required Technical Courses		
PBT 160	Concepts of Phlebotomy	4
PBT 161	Phlebotomy Lab	4
PBT 170	Phlebotomy Clinical Internship	4
Total		12

Accreditations/Affiliations

The Phlebotomy program is approved by the Kansas Board of Regents.

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Hourly	
Phlebotomy	
	\$12.50

Start Dates

Fall 2011

Spring 2012

Summer 2012

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

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Fax: 316.677.9555
wac.edu



WATCWICHITA

Program Description

The Robotics program is a cooperative effort between WATC, the National Center for Aviation Research (NIAR) at Wichita State University, and the Great Plains Robotics Alliance. This program prepares students for entry into the highly technical field of industrial robotics. The associate degree program is a sequence of courses designed to produce a technician who has mastered the skills necessary to design, assemble, install, program, troubleshoot and maintain robotic and automated equipment and has the depth and breadth of knowledge which comes from general education courses. Learning will take place in a fully equipped robotics laboratory with advanced students having opportunities to apply cutting edge robotics research to laboratory projects. Topics include robotic electronic and mechanical systems, computer systems and robotics applications in areas such as composites, welding, advanced coatings and material handling. Students will round off their educational experience by completing general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Program Features

The Robotics program is a cooperative effort between WATC, the National Institute for Aviation Research (NIAR) at Wichita State University and the Great Plains Robotics Alliance. The program provides a basic introduction to the field of industrial robotics. Topics include programmable logical controls, industrial instrumentation, basis robotic concepts and an introduction to work cells.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs

Tuition	\$6,030.00
Fees	1,680.00
Lab Fees	1,461.00
Total	\$9,171.00

Robotics

2011-12 Associate of Applied Science

Associate of Applied Science		62 Credits
Required Technical Courses		
AVT	101	Basic Electricity & Electronics 3
AVT	102	Basic Electricity & Electronics Lab 4
EMP	100	Global Professional Standards 2
IND	109	Basic Industrial Programmable Logic Controls 3
IND	131	Industrial Programmable Logic Controls 3
IND	132	Industrial Instrumentation 3
ROB	100	Introduction to Robotics 3
ROB	101	Manufacturing Control & Work Cell Interfacing 2
ROB	102	Work Cell Design Laboratory 1
ROB	103	Applied Robotics Lab I 3
ROB	104	Robotics Simulation 2
ROB	106	Robotics Controller Maintenance 2
ROB	110	Applied Robotics Lab II 3
ROB	111	Advanced Robot Controller Programming 2
Required General Education Courses		
ENG	101	Composition 101 3
MTH	112	College Algebra 3
MTH	115	Pre-Calculus Mathematics 5
ECO	105	Principles of Macroeconomics 3
SPH	101	Public Speaking 3
		OR
SPE	111	Interpersonal Communications 3
PHS	120	General Physics 5
Electives (minimum of 3 credits required for AAS)		
IND	153	Advanced Industrial Computer Applications 1
IND	155	Advanced Industrial Programmable Logic Controls 3
LEN	100	Lean for Operations 3
MET	109	Manufacturing Quality Control 3
Total Credits		62

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates* Placement for all employed in the military or continuing their education

Robotics	
N/A	N/A

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Robotics	
N/A	N/A

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
watc.edu



WATCWICHITA

Program Description

The Robotics program is a cooperative effort between WATC, the National Center for Aviation Research (NIAR) at Wichita State University, and the Great Plains Robotics Alliance. This program prepares students for entry into the highly technical field of industrial robotics. The program is a sequence of courses designed to produce a technician who has mastered the skills necessary to design, assemble, install, program, troubleshoot and maintain robotic and automated equipment. Learning will take place in a fully equipped robotics laboratory with advanced students having opportunities to apply cutting edge robotics research to laboratory projects. Topics include robotic electronic and mechanical systems, computer systems and robotics application in areas such as composites, welding, advanced coatings and material handling.

Program Features

The Robotics program is a cooperative effort between WATC, the National Institute for Aviation Research (NIAR) at Wichita State University and the Great Plains Robotics Alliance. The program provides a basic introduction to the field of industrial robotics. Topics include programmable logical controls, industrial instrumentation, basis robotic concepts and an introduction to work cells.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs

Tuition	\$4,648.00
Fees	1,148.00
Lab Fees	1,426.00
Total	\$7,222.00

Associate of Applied Science 62 Credits

Required Technical Courses

AVT	101	Basic Electricity & Electronics	3
AVT	102	Basic Electricity & Electronics Lab	4
IND	109	Basic Industrial Programmable Logic Controls	3
IND	131	Industrial Programmable Logic Controls	3
IND	132	Industrial Instrumentation	3
ROB	100	Introduction to Robotics	3
ROB	101	Manufacturing Control & Work Cell Interfacing	2
ROB	102	Work Cell Design Laboratory	1
ROB	103	Applied Robotics Lab I	3
ROB	104	Robotics Simulations	2
ROB	106	Robotics Controller Maintenance	2
ROB	110	Applied Robotics Lab II	3
ROB	111	Advanced Robot Controller Programming	2

Required General Education Courses

MTH	112	College Algebra	3
MTH	115	Pre-Calculus Mathematics	5
PHS	120	General Physics I	5

Technical Total

47

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2009 of 2008-09 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.

Graduates * Placement for all employed in the military or continuing their education

Robotics	
N/A	N/A

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of Labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually

Hourly

Robotics	
N/A	N/A

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
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Fax: 316.677.9555

watc.edu



WATCWICHITA

Surgical Technology

2011-12 Associate of Applied Science

Career Description

Surgical Technologists, also called Scrubs and Surgical or Operating room Technicians, assist in surgical operations under the supervision of Surgeons, Registered Nurses, or other surgical personnel. Surgical Technologists are members of operating room teams, which most commonly include Surgeons, Anesthesiologists, and Circulating Nurses. Before an operation, Surgical Technologists help prepare the operating room by setting up surgical instruments and equipment, sterile drapes, and sterile solutions. They assemble both sterile and non-sterile equipment, as well as check and adjust it to ensure that it is working properly. Technologists also get patients ready for surgery by washing, shaving, and disinfecting incision sites. They transport patients to the operating room, help position them on the operating table, and cover them with sterile surgical drapes. Technologists also observe patients' vital signs, check charts, and help the surgical team put on sterile gowns and gloves.

Program Features

The Surgical Technology program prepares students to function in the operating room environment by combining classroom and simulated laboratory instruction with actual surgical clinical experiences. Successful completion of the program allows graduates to take the national certification examination to become a certified surgical technologist (CST).

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Surgical Technology Admission Checklist.

Costs *

Tuition	\$6,040.00
Fees	1,820.00
Lab Fees	1,273.00
Total	\$9,133.00

*Cost does not include online fees, books or tools

Associate of Applied Science 65 Credits

Required Technical Courses

SGT	101	Introduction to Surgical Technology	4
SGT	115	Surgical Procedures I	3
SGT	119	Surgical Technology - Clinical Experience I	4
SGT	120	Principles & Practices in Surgical Technology	5
SGT	125	Surgical Procedures II	4
SGT	129	Surgical Technology - Clinical Experience II	4
SGT	130	Surgical Technology - Clinical Experience III	3
SGT	140	Principles & Practices in Surgical Technology Lab	3

Required General Education Courses

ALH	101	Medical Terminology	3
ALH	115	Pharmacology	3
BIO	150	Human Anatomy & Physiology	5
BIO	160	Microbiology	5
CED	115	Computer Applications	3
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
MTH	101	Intermediate Algebra	3
PSY	101	General Psychology	3
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking	3

Total 65

Accreditations/Affiliations

The Surgical Technology program is approved by the Kansas Board of Regents.

The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on the recommendation of the Accreditation Review Committee on Education in Surgical Technology of the Association of Surgical Technologists (AST):

Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA)

6 West Dry Creek Circle, Suite 100
Littleton, CO 80120
303.694.9262

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Surgical Technology	
15*	85.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Surgical Technology	
\$35,620	\$16.72

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400
Fax: 316.677.9555
wac.edu



WATCWICHITA



Surgical Technology 2011-12 Technical Certificate

Career Description

Surgical Technologists, also called Scrubs and Surgical or Operating room Technicians, assist in surgical operations under the supervision of Surgeons, Registered Nurses, or other surgical personnel. Surgical Technologists are members of operating room teams, which most commonly include Surgeons, Anesthesiologists, and Circulating Nurses. Before an operation, Surgical Technologists help prepare the operating room by setting up surgical instruments and equipment, sterile drapes, and sterile solutions. They assemble both sterile and non-sterile equipment, as well as check and adjust it to ensure that it is working properly. Technologists also get patients ready for surgery by washing, shaving, and disinfecting incision sites. They transport patients to the operating room, help position them on the operating table, and cover them with sterile surgical drapes. Technologists also observe patients' vital signs, check charts, and help the surgical team put on sterile gowns and gloves.

Program Features

The Surgical Technology program prepares students to function in the operating room environment by combining classroom and simulated laboratory instruction with actual surgical clinical experiences. Successful completion of the program allows graduates to take the national certification examination to become a certified surgical technologist (CST).

Admission Requirements

In addition to the Wichita Area Technical College Admissions Policy, students must meet all requirements located on the Surgical Technology Admission Checklist.

Costs *

Tuition	\$4,924.00
Fees	1,316.00
Lab Fees	1,273.00
Total	\$7,513.00

*Cost does not include online fees, books or tools

Technical Certificate

47 Credits

Required Technical Courses

SGT	101	Introduction to Surgical Technology	4
SGT	115	Surgical Procedures I	3
SGT	119	Surgical Technology - Clinical Experience I	4
SGT	120	Principles & Practices in Surgical Technology	5
SGT	125	Surgical Procedures II	4
SGT	129	Surgical Technology - Clinical Experience II	4
SGT	130	Surgical Technology - Clinical Experience III	3
SGT	140	Principles & Practices in Surgical Technology Lab	3

Required General Education Courses

ALH	101	Medical Terminology	3
ALH	115	Pharmacology	3
BIO	150	Human Anatomy & Physiology	5
BIO	160	Microbiology	5
CPR	001	CPR for Healthcare Providers	1

Total **47**

Accreditations/Affiliations

The Surgical Technology program is approved by the Kansas Board of Regents.

The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on the recommendation of the Accreditation Review Committee on Education in Surgical Technology of the Association of Surgical Technologists (AST):

Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA)

6 West Dry Creek Circle, Suite 100
Littleton, CO 80120
303.694.9262

Start Dates

August 2011	October 2011
January 2012	March 2012
June 2012	

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates * Placement for all employed in the military or continuing their education

Surgical Technology	
15*	85.7%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages.

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Surgical Technology	
\$35,620	\$16.72

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400

Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Welders work with a variety of metals such as steel, aluminum and stainless steel. They use several welding techniques such as oxy-acetylene, shielded metal arc, gas metal arc (MIG), and gas tungsten arc (TIG). Welding is the joining together of two pieces of metal by heating them to their melting point. The fusion of two pieces of metal may be accomplished with or without the addition of filler rod. Metal is heated either by a flame of combustible gas or by an electric arc

Program Features

This program allows students to gain knowledge and skills in cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) and provides some exposure to oxy-acetylene cutting and welding. Program includes classroom and lab instruction in safety; blueprint reading and sketching; tools and materials used in the various forms of welding; machine adjustments and rod selection; skill requirements for various welding positions; weld testing and qualifications; and fabrication and layout of various welding projects.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$5,720.00-\$5,854.00
Fees	1,708.00-1,736.00
Lab Fees	3,712.00-4,016.00
TOTAL	\$11,140.00-\$11,606.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Welding

2011-12 Associate of Applied Science

Associate of Applied Science		62 Credits
Required Technical Courses		
EMP 100	Global Professional Standards	2
CWG 101	Occupational Safety/Welding	1
CWG 102	Print Reading 1/Welding	2
CWG 103	Print Reading 2/Welding	1
CWG 110	Welding Applications	4
CWG 141	Oxy Acetylene Welding and Cutting	2
CWG 142	SMAW - Shielded Metal Arc Welding	7
CWG 143	GMAW - Gas Metal Arc Welding	7
CWG 145	Fabrication and Design	2
CWG 147	GTAW - Gas Tungsten Arc Welding	7
CWG 149	Materials & Testing	2
Required General Education Courses		
CED 101	Computer Applications	3
ENG 101	Composition 101	3
MTH 112	College Algebra	3
PSY 101	General Psychology OR	3
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking OR	3
SPH 111	Interpersonal Communications	3
Required Electives		
Must include at least 4 credits of one of the following		
CWG 242	SMAW D1.1 Qualification	4
CWG 243	GMAW D1.1 Qualification	4
CWG 250	API 1104 Qualification	4
Additional 4 credits could include one of the following		
MCD 116	Introduction to CAD	5
MMG 142	Manual Lathes	6
MMG 143	Manual Mills	6
DIS 150	Directed Individual Study	4
Technical Total		65

Accreditations/Affiliations

The Welding program is approved by the Kansas Board of Regents.

The program is also an AWS SENSE program:

- American Welding Society
550 N.W. LeJune Road
Miami, FL 33126
1.800.443.9353

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-10 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.

Graduates* Placement for all employed in the military or continuing their education

Welding	
17*	88.2%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Welding	
\$31,530	\$15.16

Learner Services

- Admissions
- Financial Aid
- Registration
- Support Services

Locations

NCAT

4004 N. Webb Rd.
Mon-Thur 8am - 6pm
Friday 8am - 5pm

Southside Center

4501 E. 47th St South
Mon-Thur 8am - 7pm
Friday 8am - 5pm

Grove Campus

301 S. Grove

Phone: 316.677.9400

Fax: 316.677.9555

watc.edu



WATCWICHITA

Career Description

Welders work with a variety of metals such as steel, aluminum and stainless steel. They use several welding techniques such as oxy-acetylene, shielded metal arc, gas metal arc (MIG), and gas tungsten arc (TIG). Welding is the joining together of two pieces of metal by heating them to their melting point. The fusion of two pieces of metal may be accomplished with or without the addition of filler rod. Metal is heated either by a flame of combustible gas or by an electric arc

Program Features

This program allows students to gain knowledge and skills in cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) and provides some exposure to oxy-acetylene cutting and welding. Program includes classroom and lab instruction in safety; blueprint reading and sketching; tools and materials used in the various forms of welding; machine adjustments and rod selection; skill requirements for various welding positions; weld testing and qualifications; and fabrication and layout of various welding projects.

Admission Requirements

In addition to the college admissions policy, students must:

- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Costs *

Tuition	\$4,208.00
Fees	1,260.00
Lab Fees	3,191.00
TOTAL	\$8,659.00

*Cost does not include online fees, books or tools

Start Dates

August 2010	October 2010
January 2011	March 2011
June 2011	

Welding 2011-12 Technical Certificate

Associate of Applied Science 62 Credits

Required Technical Courses

EMP	100	Global Professional Standards	2
CWG	101	Occupational Safety/Welding	1
CWG	102	Print Reading 1/Welding	2
CWG	103	Print Reading 2/Welding	1
CWG	110	Welding Applications	4
CWG	141	Oxy Acetylene Welding and Cutting	2
CWG	142	SMAW - Shielded Metal Arc Welding	7
CWG	143	GMAW - Gas Metal Arc Welding	7
CWG	145	Fabrication and Design	2
CWG	147	GTAW - Gas Tungsten Arc Welding	7
CWG	149	Materials & Testing	2

Required General Education Courses

CED	101	Computer Essentials	2
EBS	115	Pre-Algebra	3
SPH	101	Public Speaking OR	3
SPH	111	Interpersonal Communications	3

Technical Total 45

Optional Continuing Education Courses

CWG	242	SMAW D1.1 Qualification	4
CWG	243	GMAW D1.1 Qualification	4
CWG	250	API 1104 Qualification	4

Accreditations/Affiliations

The Welding program is approved by the Kansas Board of Regents.

The program is also an AWS SENSE program:

- American Welding Society
550 N.W. LeJune Road
Miami, FL 33126
1.800.443.9353

Success Rate

This chart contains the results of the one-year follow-up study conducted in 2010 of 2009-2010 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.

Graduates* Placement for all employed in the military or continuing their education

Welding	
17*	88.2%

* Graduates Eligible and Contacted in follow-up study

Wages

BLS Data Source: Bureau of labor Statistics (2006); State of Kansas Mean wages

WATC does not guarantee the below wages, but has matched training programs to job titles and mean wages in Kansas.

Annually	Hourly
Welding	
\$31,530	\$15.16



WATC

WICHITA AREA
TECHNICAL COLLEGE

COURSE DESCRIPTIONS

A

ACC 104 Computerized Accounting 3 Cr Hrs

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.

Prerequisite: Minimum grade of "C" in ACC105 Fundamentals of Accounting and CED115 Computer Applications

ACC 105 Fundamentals of Accounting 3 Cr Hrs

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. Recommended for students with no previous accounting background.

ACC 120 Accounting with Computers 3 Cr Hrs

Students generate transactions and complete accounting procedures of a sole proprietorship, a partnership and a corporation using computerized accounting software. Students review software features for various types of businesses.

ACC 130 Managerial Accounting 3 Cr Hrs

Studies management tools for business decision making, including 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, executing and controlling a business enterprise.

Prerequisite: Minimum grade of "C" or better in ACC 170 Principles of Accounting II

ACC 152 Payroll Accounting 3 Cr Hrs

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.

Prerequisite: Minimum grade of "C" or better in ACC 105 Fundamentals of Accounting or consent of the dean

ACC 160 Principles of Accounting I 3 Cr Hrs

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.

Prerequisite: Minimum grade of "C" or better in ACC 105 Fundamentals of Accounting or consent from the dean

ACC 170 Principles of Accounting II 3 Cr Hrs

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.

Prerequisite: Minimum grade of "C" or better in ACC 160 Principles of Accounting I

ACP 100 Introduction to Coatings & Paint Technology 3 Cr Hrs

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.

Prerequisite: AVC100 and AVC101 or concurrent

ACP 101 Surface Preparation & Coatings 4 Cr Hrs

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.

Prerequisite: ACP100

ACP 102 Performance & Durability of Coatings **3 Cr Hrs**

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.

Prerequisite: ACP100

ACP 103 Color Technology **3 Cr Hrs**

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 of study correlation of visual to measured results.

Prerequisite: ACP100

ACP 104 Specialized Coating Processes **3 Cr Hrs**

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.

Prerequisite: ACP100 and 101

ACP 105 Specialized Detailing **3 Cr Hrs**

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.

Prerequisite: ACP100 101 and 103

ACP 106 Aerospace Coatings & Materials **3 Cr Hrs**

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

Prerequisite/Corequisite: ACP100 Introduction to Coatings & Paint Technology

Prerequisite: ACP100 101 and 102

ACP 107 Aerospace Program Management **3 Cr Hrs**

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.

Prerequisite: ACP100, 101, 103

ACP 110 Integrated Assembly Capstone Project **4 Cr Hrs**

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.

Prerequisite: ACP 100,101,102,103,104,105,106,107

ACP 111 Technical Co-Operative Project **4 Cr Hrs**

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.

Prerequisite: ACP 100,101,102,103,104,105,106,107

ACR 100 Refrigeration Fundamentals **3 Cr Hrs**

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

ACR 101 Principles & Practices of Refrigeration **4 Cr Hrs**

Introduces the use of refrigeration tools, materials and procedures needed to install, repair and service refrigeration systems. Topics include refrigeration tools; piping practices; service valves; leak testing; refrigerant recovery, recycling and reclamation; evacuation; charging; and safety.

ACR 105 Electrical Circuits & Wiring Diagrams **4 Cr Hrs**

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.

ACR 107 Air Conditioning Systems **3 Cr Hrs**

Introduces fundamental theory and techniques to identify major components and functions of air conditioning systems. Instruction is given on types of air conditioning systems and use of instrumentation. Topics include: types of ACR systems, heat load calculations, properties of air, psychometrics, duct design, air filtrations, and safety principles.

Prerequisite: ACR 101 Principles & Practices of Refrigeration and ACR 115 Electricity & Electronics for the HVACR Service Technician.

ACR 110 Gas Heating Systems **3 Cr Hrs**

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.

ACR 111 Heat Pumps & Related Systems **3 Cr Hrs**

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. **Prerequisite:** ACR 101 Principles & Practices of Refrigeration and ACR 115 Electricity & Electronics for the HVACR Service Technician.

ACR 115 Electricity & Electronics for the HVACR Service Technician **4 Cr Hrs**

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.

Prerequisite: ACR113 Electrical Fundamentals

ACR 120 Building Control Systems I **3 Cr Hrs**

Provides instruction on the installation and service of residential air conditioning systems, as well as basic building controls. Topics include installation procedures, service, split systems, add-on systems, packaged systems and safety.

Prerequisite: ACR101 Principles & Practices of Refrigeration, ACR107 Heat Pumps & Related Systems, and ACR115 Electricity & Electronics for the HVACR Service Technician.

ACR 125 EPA Certification **1 Cr Hr**

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).

ACR 130 HVAC Design **4 Cr Hrs**

This course discusses heat energy, conditions of human comfort, psychometric chart and plotting various air conditions. Calculations of heat transfer into and out of a residential structure will be instructed using terms, concepts, measurements and calculations of moving air. This course is designed to develop and exercise the student's ability to perform heat loss and gain calculations.

Prerequisite: ACR101 Principles & Practices of Refrigeration, ACR115 Electricity & Electronics for the HVACR Service Technician and ACR120 Building Control Systems I

ACR 135 Internship in HVACR **5 Cr Hrs**

Students participate in an industry-related assignment associated with the heating, ventilation, air conditioning and refrigeration systems. All work assignments must be approved by a faculty advisor.

Prerequisite: ACR111 Heat Pumps & Related Systems and ACR130 HVAC Design

ACR 140 Sheet Metal **3 Cr Hrs**

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.

AER 132 Aerostructures Assembly 4 Cr Hrs

Provides instruction in the fundamentals of assembly, meeting set standards, safety issues, use of common aircraft sheetmetal tools, sealant application, math and aircraft blueprint reading. Students learn to identify fasteners, install and remove fasteners, assemble sheetmetal components and identify and maintain proper "skin" quality. Students receive classroom instruction and demonstration as well as shop demonstration and performance.

AER 133 Advanced Aerostructures 2 Cr Hrs

Provides instruction in the advanced skills of assembly, using set standards, safety issues, use of common aircraft sheetmetal tools, sealant application, math and aircraft blueprint reading. Students learn to identify fasteners, install and remove fasteners, assemble sheetmetal components and identify and maintain proper "skin" quality. Repair techniques and the more difficult applicable skills for aviation manufacturing are the focus of this course. Students receive classroom instruction and demonstration as well as shop demonstration and performance.

AER 150 Assembly Overview I 3 Cr Hrs

This course is designed to provide the student with a general overview of sheet metal and composites. Working in a hands-on setting, students will learn the basics of aircraft assembly while focusing on inspection techniques.

Prerequisite: AVC 100, AVC101, AVC102, AVC103, AVC106 - Completed with a C or better

AER 151 Electrical Overview 2 Cr Hrs

This course is designed to provide the entry level inspector with a well-rounded knowledge base in bonding, soldering and crimping. Learning the techniques and principles will take place in both the classroom and laboratory setting.

Prerequisite: AVC 100, AVC101, AVC102, AVC103, AVC106 - Completed with a C or better

AER 153 Aerospace Blueprint for Inspectors 2 Cr Hrs

This course is designed to continue the study of aerospace blueprint applications with an emphasis on the role of inspection. Students will learn advanced skills and apply blueprint reading skills to inspection scenarios.

Prerequisite: AVC 100, AVC101, AVC102, AVC103, AVC106 - Completed with a C or better

AER 159 Aircraft Familiarization for Inspectors 3 Cr Hrs

This course is designed to provide a general familiarization of aircraft systems and processes. Topics include introduction to aircraft systems, aerospace regulations, Electrostatic Discharge (ESD), conformity, and process improvement.

Prerequisite: AVC 100, AVC101, AVC102, AVC103, AVC106 - Completed with a C or better

AER 160 Aircraft Familiarization Laboratory for Inspectors 2 Cr Hrs

This course is designed to provide entry level quality control technicians with the hands on experience they will need to expect and document aircraft systems and processes. Topics include introduction to documentation procedures, verification of aircraft systems.

Prerequisite: AVC 100, AVC101, AVC102, AVC103, AVC106 - Completed with a C or better
AER159 or concurrent

AER 190 Integrated Capstone Project 2 Cr Hrs

This course addresses the full spectrum of Quality Control Technician's role within the industry. Problem solving strategies within a team concept will be emphasized. Industry and applied research projects will be assigned.

Prerequisite: AER150, AER151, AER153, AER 159, AER160 - Completed with a C or better

AER 191 Quality Control Technician Internship 2 Cr Hrs

Students will intern on part-time basis in a position 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.

Prerequisite: AER150, AER151, AER153, AER 159, AER160 - Completed with a C or better

ALH 101 Medical Terminology 3 Cr Hrs

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.

ALH 105 First Aid & CPR **3 Cr Hrs**

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.

ALH 110 Principles of Nutrition **3 Cr Hrs**

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.

ALH 115 Pharmacology **3 Cr Hrs**

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.

Prerequisite: Minimum grade of "C" or better in ALH101 Medical Terminology or BIO150 Human Anatomy & Physiology

ALH 130 Emergency Preparedness for Health Professionals **3 Cr Hrs**

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. 📄

ALH 131 Diseases, Disorders & Diagnostic Procedures **2 Cr Hrs**

Focuses on diseases and disorders by body systems that are frequently diagnosed and treated in the medical office setting. Performance of electrocardiographic and pulmonary function procedures is covered with return demonstration required.

Prerequisite: BIO100 Biology Review or equivalent and minimum grade of "C" or better in BIO150 Human Anatomy and Physiology

AMT 105 Technical Mathematics **2 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Meet the criteria established by Part 147.31. The student will be given an assessment evaluation to determine if the student has the background that will most likely result in the successful completion of this course.

AMT 107 Aircraft Drawings **1 Cr Hr**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 108 Aircraft Coverings **2 Cr Hrs**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 109 Physics **2 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Entrance requirements as established by FAR Part 147.31

AMT 111 Materials & Processes **4 Cr Hrs**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 112 Assembly & Rigging **4 Cr Hrs**

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 exams.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 113 Basic Electricity **4 Cr Hrs**

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% percent for the written and Lab project exams.

Prerequisite: Meet the criteria established by Part 147.31.

AMT 115 Weight & Balance **2 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 116 Aircraft Instrument Systems **1 Cr Hr**

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 117 Mechanics Privileges & Limitations **1 Cr Hr**

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 percent for the written and Lab project exams.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 119 Maintenance Publications, Forms & Records **2 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Meet the criteria established by Part 147.31.

AMT 120 Airframe Inspection **3 Cr Hrs**

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 123 Cleaning & Corrosion Control **1 Cr Hr**

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 percent for the written and Lab project exams.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 125 Fluid Lines & Fittings

1 Cr Hr

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 percent for the written and Lab project exams.

Prerequisite: Meet the criteria established by Part 147.31. The student will be given an assessment evaluation to determine if the student has the background that will most likely result in the successful completion of this course.

AMT 127 Ground Operations & Service

2 Cr Hrs

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 131 General Review & Test

1 Cr Hr

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

AMT 136 Propellers

4 Cr Hrs

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.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 151 Aircraft Electrical Systems

6 Cr Hrs

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.

Prerequisite: Must have completed the General section or meet the criteria established by FAR 147.31

AMT 153 Hydraulic & Pneumatic Power Systems

2 Cr Hrs

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

Prerequisite: Must have completed the General section or meet the criteria established by Part 147.31.

AMT 155 Aircraft Landing Gear Systems

4 Cr Hrs

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.

Prerequisite: Must have completed the General section or meet the requirements of Part 147.31.

AMT 159 Aircraft Fuel Systems

2 Cr Hrs

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 161 Fire Protection Systems

1 Cr Hr

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 163 Ice & Rain Control Systems **1 Cr Hr**

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 165 Cabin Atmosphere Control Systems **2 Cr Hrs**

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 167 Aircraft Welding **2 Cr Hrs**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 169 Communication & Navigation Systems **2 Cr Hrs**

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.

Prerequisite: Must have completed General section or meet the criteria established by Part 147.31.

AMT 173 Position & Warning Systems **1 Cr Hr**

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.

Prerequisite: Must have completed the general section or meet the criteria established by Part 147.31.

AMT 177 Wood Structures **1 Cr Hr**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 179 Aircraft Sheetmetal & Non-Metallic Structures **7 Cr Hrs**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 183 Aircraft Finishes **2 Cr Hrs**

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.

Prerequisite: A Freshman level Prerequisite course for the skill classes in the Airframe and/or Powerplant programs.

AMT 186 Airframe Review & Test **4 Cr Hrs**

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

AMT 200 Reciprocating Engines **9 Cr Hrs**

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 % (percent) for the written and Lab Project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 202 Engine Inspection **2 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 203 Powerplant Ignition Systems **3 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Must have completed the General section or meet the criteria established by Part 147.31.

AMT 204 Engine Fuel Systems **1 Cr Hr**

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 percent for the written and Lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 206 Auxiliary Power Units **1 Cr Hr**

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.

AMT 207 Fuel Metering Systems **4 Cr Hrs**

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 percent for the written and Lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 208 Engine Electrical Systems **2 Cr Hrs**

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 percent for the written and lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 211 Powerplant Cooling Systems **1 Cr Hr**

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.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 213 Powerplant Lubrication Systems 3 Cr Hrs

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.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 217 Induction Systems 1 Cr Hr

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.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 219 Powerplant Exhaust Systems 2 Cr Hrs

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 percent for the written and Lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 223 Powerplant Fire Protection Systems 1 Cr Hr

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 percent for the written and lab project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 225 Powerplant Instrument Systems 1 Cr Hr

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.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31.

AMT 227 Turbine Engines 8 Cr Hrs

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 % (percent) for the written and Lab Project exams.

Prerequisite: Must have completed the General Section and/or meet the criteria established by Part 147.31

AMT 231 Powerplant Test & Review 4 Cr Hrs

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

ART 100 Art Appreciation 3 Cr Hrs

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.

ASF 100 Introduction to Networking 3 Cr Hrs

Introduces networking technologies and prepares students to take the CompTIA's broad-based, vendor independent networking certification exam, Network + or the Electronics Technicians Association, International Certified Network Systems Technician certification. This course covers networking, local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: basic knowledge of networking technology, physical layer, data layer, network layer, transporter layer, TCP/IP

fundamentals, TCP/IP suite: utilities, remote connectivity, security, implementing the installation of network, maintaining and support the network, and troubleshooting the network.

ASF 101 Introduction to Data Cabling 3 Cr Hrs

Introduces the fundamentals of copper data cabling communication systems from low data rates systems through gigabit and higher data rate systems. It provides detailed instruction on the theory, operation, installation, testing, troubleshooting and documentation of a copper data cabling installation. Hands-on instruction is provided in Category 5e, Category 6 and RG-6 installation, termination and testing. .

ASF 102 Introduction to Fiber Optics 3 Cr Hrs

This course introduces the fundamentals of fiber optic communication systems from low data rates short-hauls systems through gigabit and higher data rate long-haul systems. It provides instruction in fiber optics which includes the following topics: history of fiber optics, principles of fiber optic transmission, basic principles of light, optical fiber construction and theory, optical fiber characteristics, safety, fiber optic cables, splicing, connectors, fiber optic light sources, fiber optic detectors and receivers, cable installation and hardware, fiber optic system design considerations, test equipment and link/cable testing. Hands-on instruction is provided in fiber optic connector installation, mechanical splicing, fusion splicing, and testing.

ASF 103 Introduction to National Electric Code 2 Cr Hrs

This course introduces the National Electrical Code (NEC) and focuses on the requirements for data and fiber optic cable installations. Emphasis is placed on grounding, bonding, cable identification, cable markings, cable types, cable substitution, and resistance to fire.

AVC 100 Aerospace Safety 1 Cr Hrs

This course provides an in-depth study of the human and safety practices required for work in aviation and manufacturing fields. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; hazardous waste, and first aid and cardiopulmonary resuscitation.

AVC 101 Applied Shop Math 2 Cr Hrs

This course focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102 Precision Instruments 1 Cr Hrs

This course provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environment. Students will learn to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios.

AVC 103 Geometric Dimensioning & Tolerancing 1 Cr Hrs

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 an interactive on line environment.

AVC 104 Quality Control Concepts 1 Cr Hrs

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.

AVC 105 Aircraft Familiarization 1 Cr Hrs

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.

AVC 106 Aerospace Blueprint Reading 2 Cr Hrs

This course builds basic blueprint reading skills leading to a systematic approach to reading an aircraft blueprint. Students will learn a systematic approach to reading aircraft blue prints through actual manipulation of working drawings.

AVC 107 Fundamentals for Aerospace Manufacturing 1 Cr Hrs

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 online environment.

AVC 108 Aircraft Systems & Components 4 Cr Hrs

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.

AVC 110 Safety/OSHA 10 1 Cr Hrs

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.

AVC 112 Blueprint Reading 2 Cr Hrs

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.

AVT 100 Technical Mathematics 3 Cr Hrs

The technical Math course content includes the fundamental processes of mathematics with emphasis on problem-solving techniques. Included is a review of arithmetic, introductory algebra, rudiments of analytic geometry, and elementary trigonometry.

AVT 101 Basic Electricity & Electronics 3 Cr Hrs

This course is designed to introduce the student to the fundamental concepts of electricity and electronics that involve direct current (dc), including series and parallel resistive circuits, network analysis, and magnetism. Prerequisite: AVT 100.

This course is designed to introduce the student to the fundamental concepts of electricity and electronics that involve direct current (dc), including series and parallel resistive circuits, network analysis, and magnetism.

Prerequisite: AVT100 Technical Mathematics

AVT 102 Basic Electricity & Electronics Lab 3 Cr Hrs

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.

Prerequisite: AVT101 Basic Electricity & Electronics or concurrent enrollment in AVT101 Basic Electricity & Electronics

AVT 103 Introduction to Avionics 3 Cr Hrs

Covers major phases of avionics from navigation, communication and surveillance to sophisticated systems using state-of-the-art sensors and computations. Procedures and practices are also presented. The intent is to give students and/or technicians an overview of the entire avionics field, not just a single airborne or ground system. An important role of avionics and aviation is the abbreviations and acronyms used in the aviation industry. These are introduced and emphasis is placed on the most commonly used in today's environment.

AVT 105 Avionics Systems & Troubleshooting 2 Cr Hrs

This course is a study of aviation electronic equipment, with hands-on wiring and system testing. Emphasis will be placed on avionics system installation and the block diagrams of individual appliances. Complete design, wiring and installation of a common general aviation avionics suite is a requirement of the class. Upon completion of this course, the student will be able to understand the operation, testing and troubleshooting of general aviation avionics systems and wiring concepts.

AVT 106 Avionics Systems & Troubleshooting Lab 3 Cr Hrs

This course is an application of aviation electronic equipment, with hands-on wiring and system testing. Emphasis will be placed on avionics system installation and the block diagrams of individual appliances. Complete wiring of an Allied Signal Silver Crown avionics suite and a GPS unit is a requirement of the class. Upon completion of this course, the student will be able to understand the operation, testing and troubleshooting of general aviation avionics systems and wiring concepts.

AVT 107 Basic Communications Electronics 3 Cr Hrs

This course is designed to the fundamental concepts of electricity and electronics that involve alternating current (ac), capacitance, inductance, transformers, semi-conductor diodes, junction transistors, field effect transistors and operational amplifiers.

Prerequisite: AVT101 Basic Electricity & Electronics

AVT 108 Wiring & Cannon Plug Lab 2 Cr Hrs

This course will provide the student instruction and practical lab exercises with the most common types of aircraft connectors and wiring systems utilized in today's aircraft. A part of the course provides the student the opportunity to terminate, populate connectors and aircraft wiring assemblies.

Prerequisite: AVT 100 Technical Mathematics or the equivalent, AVT 101 Basic Electricity and Electronics, AVT 107 Basic Communication Electronics

AVT 110 Aircraft Electrical, Communication & Navigation Systems (Part 1) 3 Cr Hrs

Studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 111 Aircraft Electrical, Communication & Navigation Systems (Part 1) Lab 3 Cr Hrs

This course studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 112 Aircraft Electrical, Communication & Navigation Systems (Part 2) 2 Cr Hrs

This course studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 113 Aircraft Electrical, Communication & Navigation Systems (Part 2) Lab 3 Cr Hrs

This course studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and

splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 115 Basic Communications Electronics Lab 3 Cr Hrs

This course is designed to help students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward a Federal Communications Commission general class radiotelephone license. Students develop the safety procedures and competencies needed to apply the principles of electronics that are required of avionics technicians.

Prerequisite: AVT101 Basic Electricity & Electronics

AVT 122 Certification Preparation II for NCATT 4 Cr Hrs

Helps student increase the knowledge and skills required to troubleshoot and repair practical electronics projects and prepares the student based upon these skills to be successful for the NCATT Certification testing.

AVT 125 Digital Electronics Fundamentals 2 Cr Hrs

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. The digital numbering system is studied and incorporates a part of the Technical Mathematics text book. Once an understanding of the numbering system is achieved the course proceeds to basic logic circuits such as Gates, Flip-flops, and Latches. Also discussed are the types of analog to digital (A/D) converters as well as multiplexing devices and counter circuits.

AVT 126 Digital Electronics Fundamentals Lab 2 Cr Hrs

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. The digital numbering system is studied and incorporates a part of the Technical Mathematics text book. Once an understanding of the numbering system is achieved the course proceeds to basic logic circuits such as Gates, Flip-flops, and Latches. Also discussed are the types of analog to digital (A/D) converters as well as multiplexing devices and counter circuits.

AVT 135 Advanced Analog & Digital Communications 2 Cr Hrs

This course introduces students to methods of modulation and their measurement and to the ARINC429 data bus system used to control and communicate with modern avionics devices.

Prerequisite: AVT106 Avionics Systems & Troubleshooting Lab and concurrent enrollment in AVT136 Advanced Analog & Digital Communications Lab

AVT 136 Advanced Analog & Digital Communications Lab 2 Cr Hrs

This lab course is the complement to AVT 135 and gives the student practical experience with common methods of signal modulation measurement. The student will also use standard ARINC429 test equipment to troubleshoot modern avionics equipment in both a laboratory and aircraft environment.

Prerequisite: AVT106 Avionics Systems & Troubleshooting Lab and concurrent enrollment in AVT136 Advanced Analog & Digital Communications Lab

B

BAF 103 Finance 3 Cr Hrs

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.

Prerequisite: Minimum grade of "C" or better in ACC105 Fundamentals of Accounting and ECO105 Principles of Macroeconomics

BAF 105 Introduction to US Financial System 3 Cr Hrs

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.

BAF 121 Introduction to Bank Management 3 Cr Hrs

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.

Prerequisite: BAF103 Finance, BAF105 Introduction to US Financial System

BIO 100 Biology Review 1 Cr Hr

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 but has 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. CHM110 Chemistry is recommended but not required.

BIO 110 Principles of Biology 5 Cr Hrs

An introduction to the biological concepts included in the General Education Biology Core Competencies. This includes understanding the nature of science, levels of organization, bioenergetics, reproduction and inheritance and the mechanisms of change. Laboratory stresses the process of scientific investigation and observation of biological processes. ↕

BIO 150 Human Anatomy & Physiology 5 Cr Hrs

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.

Prerequisite: The student must complete one of the following, BIO 110 Principles of Biology, BIO 100 Biology Review, or successful completion of a life science lab class within the past

five years. If student has taken a lab science class more than 5 years, the student will be required to enroll in BIO100 Biology Review

BIO 160 Microbiology 5 Cr Hrs

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.

Prerequisite: The student must successfully completed one of the following: BIO110 Principles of Biology, BIO110 Biology Review or successful completion of a life science lab class within the past five years. CHM110 General Chemistry is suggested but not required

BMT 101 Optimize Your Website– Beginning Search Engine Optimization (SEO) 1 Cr Hr

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.

BMT 105 Online Advertising–Beginning Google AdWords 1 Cr Hr

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.

Prerequisite: BMT101 Optimize Your Website Beginning Search Engine Optimization (SEO)

BMT 110 Blogging for your Business 1 Cr Hr

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.

BMT 115 Beginning E-Mail Marketing **1 Cr Hr**

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.

BMT 120 Social Media Madness **1 Cr Hr**

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.

BUS 104 Introduction to Business **3 Cr Hrs**

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.

BUS 106 Office Procedures **3 Cr Hrs**

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

BUS 121 Business Communications **3 Cr Hrs**

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.

BUS 125 Business Law **3 Cr Hrs**

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.

BUS 130 Personal Finance **3 Cr Hrs**

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.

BUS 140 Principles of Marketing **3 Cr Hrs**

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.

BUS 145 Dreamweaver **3 Cr Hrs**

Introduces 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.

BUS 200 Principles of Management **3 Cr Hrs**

Explores the basic management functions of planning and controlling that pertain to the type of business for which student is preparing to work on a career basis. The basic management theories, functions and aspects of various types of business are studied.

CAT 101 CATIA Part Design & Sketcher 4 Cr Hrs

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.

CAT 102 CATIA Drafting 4 Cr Hrs

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.

Prerequisite: CAT101 with a minimum grade of C or instructor approval

CAT 105 CATIA Assembly Design 4 Cr Hrs

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.

Prerequisite: CAT101 with a minimum grade of C or instructor approval

CAT 110 CATIA Wireframe & Surfaces 4 Cr Hrs

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

Prerequisite: CAT101 with a minimum grade of C or instructor approval

CAT 115 CATIA Prismatic Machining 4 Cr Hrs

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.

Prerequisite: CAT101, CAT105 with a minimum grade of C or instructor approval

CAT 120 CATIA ENOVIA LCA 3 Cr Hrs

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.

Prerequisite: CAT101, CAT105 with a minimum grade of C or instructor approval

CAT 122 CATIA ENOVIA DMU 2 Cr Hrs

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.

CAT 124 CATIA Surface Machining 3 Cr Hrs

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.

Prerequisite: CAT101, CAT105, CAT115 with a minimum grade of C or instructor approval

CED 101 Computer Essentials 2 Cr Hrs

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.

CED 107 Database & File Management 3 Cr Hrs

Provides students with opportunities to study the rules of record management and is an introduction to Microsoft Access 2007. Students who complete this course should have sufficient background to organize recordkeeping and perform sort, queries and manage databases in Microsoft Access 2007.

CED 108 Word Processing 3 Cr Hrs

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.

CED 115 Computer Applications 3 Cr Hrs

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, networking, word processing, spreadsheets and databases.

Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.

CED 120 Advanced Computer Applications 3 Cr Hrs

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.

Prerequisite: CED 115 Computer Applications or acceptable prior experience with Microsoft Word, Excel, and PowerPoint, or consent of the dean

CFT 101 Introduction to Composites 2 Cr Hrs

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.

Prerequisite: AVC100, AVC102

CFT 106 Composite Finish Trim 2 Cr Hrs

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.

Prerequisite: CFT 101, CFT 130, AVC100

CFT 107 Composite Assembly 2 Cr Hrs

Composite Assembly teaches the fundamentals of joining composite structures. Adhesive bonding as well as mechanical fasteners is 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.

CFT 130 Composites Fabrication Methods/Applications 2 Cr Hrs

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.

CFT 140 Composites Inspection 2 Cr Hrs

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.

Prerequisite: must have completed Composite Fabrication Technician program with a letter grade of "C" or better, OR industry composite fabrication experience approval

CFT 141 Disassembly & Damage Removal Techniques 3 Cr Hrs

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.

Prerequisite: must have completed Composite Fabrication Technician program with a letter grade of "C" or better, OR industry composite fabrication experience approval and have completed or be concurrently enrolled in CFT 140

CFT 142 Composite Repair 4 Cr Hrs

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 wetlay up and pre preg materials.

Prerequisite: must have completed Composite Fabrication Technician program with a letter grade of "C" or better, OR industry composite fabrication experience approval and CFT 141

CFT 143 Complex Composite Repairs **3 Cr Hrs**

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.

Prerequisite: CFT 142 Composite Repair

CFT 144 Electrical Bonding Repair **1 Cr Hrs**

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.

Prerequisite: must have completed Composite Fabrication Technician program with a letter grade of "C" or better, OR industry composite fabrication experience approval and CFT 142

CHM 100 Chemistry Review **1 Cr Hr**

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.

CHM 110 General Chemistry **5 Cr Hrs**

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.

Prerequisite: EBS 115 Pre-Algebra or a higher level math course with a minimum grade of "C" or better, completed within the past five years, or satisfactory course placement assessment scores

CHM 125 Chemistry I **5 Cr Hrs**

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.

Prerequisite: CHM100 General Chemistry or high school chemistry with a grade of "C" or better within the past 5 years, and MTH101 Intermediate Algebra with a grade of "C" or better or a math ACT score of 21 or better within the past 5 years. MTH112 College Algebra can be taken concurrently

CHM 135 Chemistry II **5 Cr Hrs**

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. ⬆

Prerequisite: CHM 125 Chemistry I and MTH 112 College Algebra with minimum grade of "C" or better within the past five years

CNU 010 Certified Nurse Aide Update **1 Cr Hr**

This course is for students who originally certified as a Nursing Assistant in the State of Kansas 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.

CPR 001 CPR for Healthcare Providers **1 Cr Hrs**

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.

CRJ 101 Introduction to Criminal Justice **3 Cr Hrs**

Introduction to the historical backgrounds, agencies, and process, purposes and functions of the system. The ethics, administration and legal problems of the criminal justice system.

CWG 101 Occupational Safety / Welding 1 Cr Hrs

Provides students with an appreciation and basic understanding of safety rules and regulations. Students learn and apply safe work habits in the use of hand and power tools as well as the handling, use and application of hazardous materials. Films, video, field trips, and guest speakers supplement course.

CWG 102 Print Reading I / Welding 2 Cr Hrs

Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies.

CWG 103 Print Reading II / Welding 1 Cr Hr

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.

Prerequisite: C or better in Blue Print I and have be concurrently enrolled in at least one core welding class.

CWG 110 Welding Applications 4 Cr Hrs

The student will spend a total 26 hrs. in each – SMAW, GMAW, GTAW, & Oxy Fuel welding. Students will learn basic elements of each in the course.

CWG 141 Oxy-Acetylene Welding & Cutting 2 Cr Hrs

Includes lecture and laboratory and teaches students to set up and operate oxy-acetylene welding and cutting equipment with emphasis on safety.

CWG 142 SMAW–Shielded Metal Arc Welding 7 Cr Hrs

Includes lecture and laboratory and teaches students the proper set up and operation of various types and brands of arc welders. Laboratory time includes demonstrations and practice time for students to acquire arc-welding skills used in industry.

CWG 143 GMAW–Gas Metal Arc Welding 7 Cr Hrs

Includes lecture and laboratory and teaches the fundamentals of setting up and adjusting various MIG welding machines. Students practice American Welding Society basic joint designs and positions of welds and attain the skills necessary to gain entry-level employment in gas metal arc welding.

CWG 145 Fabrication & Design 2 Cr Hrs

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

Prerequisite: Must be concurrently enrolled in one or more core classes or successfully passed core classes

CWG 147 GTAW–Gas Tungsten Arc Welding 7 Cr Hrs

Provides instruction in the field of gas tungsten arc welding. Students develop skills needed to be employed in the welding areas of aluminum and steel.

CWG 149 Materials & Testing 2 Cr Hrs

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.

CWG 242 SMAW D1.1 Qualification 4 Cr Hrs

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. **Prerequisite:** CWG142 Shielded Metal Arc Welding or administrator approval.

CWG 243 GMAW D1.1 Qualification

4 Cr Hrs

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. **Prerequisite:** CWG143 Gas Metal Arc Welding or administrator approval.

CWG 250 API 1104 Qualification

4 Cr Hrs

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.

D

DAS 020 Theoretical Applications of Nitrous Oxide for the Dental Assistants

0 Cr Hrs

This one-day course is designed to prepare dental assistants to safely administer and monitor nitrous/oxygen inhalation sedation. After successful completion of the course, the dental assistant receives a Certificate of Course Completion.

Prerequisite: All participants must be currently affirmed in CPR and meet at least one of the following requirements: Certified Dental Assistant, graduate of a formal dental assistant education program or 3 years of work experience as a dental assistant. Each participant will complete a written examination with a minimum proficiency of 75% to demonstrate that the course objectives are met.

DAS 102 Fundamentals in Dental Assisting I

3 Cr Hrs

Introduction to the career of Dental Assisting. Includes dental terminology and spelling; educational requirements, functions and credentials of all team members; ethics and statutes that govern dentistry; communication skills; and professionalism.

Prerequisite: Admission to the Dental Assistant Program.

DAS 107 Anatomy for Dental Assistants

1 Cr Hr

This course covers basic information about the structures and functions of the human body. The course includes most major body systems with special emphasis on the head and neck.

Prerequisite: Admission to Dental Assistant program.

DAS 108 Dental Health Education

2 Cr Hrs

Introduction to dental health education, basic nutrition, and patient education. Included is the study of periodontal disease; its risks and preventive measures. Basic skills of oral hygiene instruction, fluoride treatments and coronal polishing of the teeth will be implemented. Age appropriate educational media and nutritional information will be displayed in an individual project.

Prerequisite: Satisfactory course placement assessment scores and completion or concurrent enrollment in DAS100 Introduction to Dental Health Professions, DAS147 Dental Practice Management, DAS113 Dental Materials I, DAS122 Chairside Assisting I, DAS119 Dental Radiology I, DAS 149 Infection Control in Dental Practice, and DAS 119 Dental Anatomy.

DAS 111 Fundamentals in Dental Assisting II

2 Cr Hrs

Covers dental terminology and spelling; dental charting; introductory business office procedures, including greeting and receiving patients, telephone techniques, filing and patient record management, appointment scheduling and recall.

Prerequisite: Completion of DAS 102 Fundamentals in Dental Assisting.

DAS 112 Dental Materials I **3 Cr Hrs**

This course includes identification of materials used in general dentistry. Physical and chemical properties, requirements and limitations, functions and classification will be discussed. Proper manipulation of materials, their uses and proper storage will be practiced. Various laboratory procedures will be studied so the student will understand the importance of each step in the procedure. The student will be instructed in, and expected to demonstrate safe operation of laboratory equipment.

Prerequisite: Admission to the Dental Assistant Program and completion or concurrent enrollment in DAS 102, DAS 104, Das 106, DAS 115.

DAS 115 Chairside Assisting I **4 Cr Hrs**

Introduces students to dental equipment, hand and rotary instruments and basic duties and responsibilities of the chairside assistant, such as seating and dismissing the patient, oral evacuation, retraction and instrument transfer. Introduces students to principles of microbiology, disease transmission, standard precautions and infection control techniques according to Occupational Safety and Health Administration (OSHA) and American Dental Association (ADA) guidelines.

Prerequisites: Admission into the Dental Assistant program and completion or concurrent enrollment in DAS 112 Dental Materials I and DAS 119 Dental Anatomy.

DAS 118 Dental Radiology I **2 Cr Hrs**

Fundamental concepts and usage of intraoral radiographic techniques to safely use diagnostic radiography in the dental office. Includes an introduction to extraoral techniques and digital radiography.

Prerequisites: Admission into the Dental Assistant program

DAS 119 Dental Anatomy **2 Cr Hrs**

A detailed study of the structure and function of head, neck, and oral cavity, including oral disease. Laboratory work includes oral tissue examination and demonstrations of tooth drawings.

Prerequisites: Satisfactory course placement assessment scores and completion or concurrent enrollment in DAS100 Introduction to Dental Health Professions, DAS108 Dental Health Education, DAS 113 Dental Materials, DAS114 Dental Radiology I, DAS122 Chairside Assisting I, DAS147 Dental Practice Management, and DAS 149 Infection Control in Dental Practice.

DAS 125 Dental Science I **2 Cr Hrs**

Provides students with knowledge of medical emergencies that may arise in the dental setting. Students are expected to recognize signs and symptoms of specific emergencies to assist in the delivery of the suggested treatment. CPR for the health-care professional, basic first aid and skills in taking and recording vital signs will be taught. Pharmacology for the dental assistant and theoretical application of nitrous oxide is also included.

Prerequisites: DAS 107 Anatomy for Dental Assistants and DAS 135 Chairside Assisting II.

DAS 129 Dental Science II **1 Cr Hr**

Studies disease processes, especially those involving the oral cavity.

Prerequisites: DAS 107 Anatomy for Dental Assistants, DAS 119 Dental Anatomy and concurrent enrollment in DAS 155 Chairside Assisting IV.

DAS 132 Dental Materials II **2 Cr Hrs**

Continuation of Dental Materials I. This course will include identification of materials used in general dentistry and dental laboratory procedures. Proper manipulation of materials, their uses and correct storage will be practiced. The student will be instructed in, and expected to demonstrate the safe operation of laboratory equipment. Upon completion of this course, students will be able to demonstrate a basic knowledge of dental materials in the clinical dental office and dental laboratory. The student will demonstrate the ability to select and manipulate chairside dental materials as well as general organizational skills, teamwork, communication skills, safety and infection control techniques.

Prerequisite: Successful completion of DAS112 and concurrent enrollment in DAS135

DAS 135 Chairside Assisting II **3 Cr Hrs**

Continuing practice of clinical dental assisting skills plus study of dental anesthesia, restorative dentistry with practice in application of matrix bands, dental dams and fixed prosthodontics. **Prerequisite:** Completion of DAS 115 Chairside Assisting I.

DAS 138 Dental Radiology II **2 Cr Hrs**

Continuation of DAS 118 Dental Radiology I with more intensive experience in exposing, processing and mounting intraoral x-ray films using the Dxtr mannequin and patients. Students are closely supervised and an evaluation is made of each completed survey. Radiographic safety and infection control procedures are emphasized.

Prerequisite: DAS 118 Dental Radiology I.

DAS 142 Dental Office Procedures **2 Cr Hrs**

Provides instruction in additional business office procedures: supplies and inventory, expenses and disbursements, banking procedures, recording fees charged and paid, collections, computer applications in the dental office and dental insurance. Job-seeking skills are also included. **Prerequisites:** DAS 111 Fundamentals in Dental Assisting II and concurrent enrollment in DAS 145 Chairside Assisting III and DAS 155 Chairside Assisting IV.

DAS 143 Dental Materials III **1 Cr Hr**

Continuation of Dental Materials I and II. This course includes identification of materials used in general dentistry and dental laboratory procedures. Proper manipulation of materials, their uses and correct storage are practiced. Various laboratory procedures including waxing, investing and casting of a crown, construction of baseplates and bite rims, bleaching trays and an orthodontic retainer are practiced. Students are instructed in and expected to demonstrate the safe operation of laboratory equipment.

Prerequisites: DAS 132 Dental Materials II and concurrent enrollment in DAS 145 Chairside Assisting III.

DAS 144 Clinical Experience I **4 Cr Hrs**

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.

Prerequisites: Concurrent enrollment in DAS 125 Dental Science I, DAS 138 Dental Radiology II, DAS 143 Dental Materials III and DAS 145 Chairside Assisting III.

DAS 145 Chairside Assisting III **1 Cr Hr**

Continuation of Chairside Assisting I and II. This course provides a foundation for assisting in the dental specialties of oral and maxillofacial surgery, endodontics and removable prosthodontics. Procedures, instruments and materials involved in these areas are studied. **Prerequisites:** DAS 135 Chairside Assisting II and concurrent enrollment in DAS 143 Dental Materials III.

DAS 155 Chairside Assisting IV **1 Cr Hr**

Continuation of Chairside Assisting I, II and III. This course provides a foundation for assisting in the dental specialties of periodontics, orthodontics, dentofacial orthopedics and pediatric dentistry. Procedures, instruments and materials involved in these areas are studied. **Prerequisites:** DAS 145 Chairside Assisting III and concurrent enrollment in DAS 143 Dental Materials III.

DAS 156 Clinical Experience II **4 Cr Hrs**

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 business office procedures. Scheduled clinical seminars provide opportunities to review and discuss experiences and procedures.

Prerequisites: Concurrent enrollment in DAS 129 Dental Science II, DAS 138 Dental Radiology II, DAS 142 Dental Office Procedures, DAS 143 Dental Materials III and DAS 155 Chairside Assisting IV.

DAS 214 Supragingival Scaling **4 Cr Hrs**

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. **Prerequisites:** Graduate of an accredited dental assistant program and CDA and six months of experience as a dental assistant or three years employment as a dental assistant within the last five years or departmental consent.

DIS 150 Directed Individual Studies**1-12 Cr Hrs**

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.

E**EBS 101 College Reading Skills****3 Cr Hrs**

Develops students' reading skills necessary for successful completion of postsecondary coursework. Instruction is based on application of research-based reading strategies to authentic college texts. It is required that any student scoring in the range of 0–60 on the COMPASS reading assessment enroll in this course. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 102 Sentence Structure**1 Cr Hr**

Enables students to construct complete simple, compound and complex sentences by applying grammar concepts learned.

EBS 103 Paragraph Writing**1 Cr Hr**

Enables students to write a focused, organized, supported paragraph without fragment, run-on or comma splice errors.

EBS 105 Becoming a Master Student**3 Cr Hrs**

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.*

EBS 110 English**3 Cr Hrs**

Designed to equip students for success in the writing required during academic endeavors. Review of grammar is individualized and self-paced. Writing assignments include a number of paragraphs and major essays. To demonstrate readiness for and to 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.

Prerequisite: EBS103 Basic Paragraph Writing with a minimum grade of "C" or better or satisfactory course placement assessment scores

EBS 113 Basic Arithmetic**3 Cr Hrs**

Basic Arithmetic is a course designed to provide students with basic arithmetic computational skills including basic decimals, fractions, ratios and proportions and percent's. Computation by scientific calculator will be introduced, but emphasis will be placed on computation by hand. *This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.*

Prerequisite: Satisfactory course placement assessment scores

EBS114 Pre-Algebra with Review**5 Cr Hrs**

Provides students with the skills necessary to be successful in their math courses. The course is designed to identify the student's specific learning style, provide note taking/test taking techniques, and offer math preparation strategies. These skills are fundamental in solving industrial applications, including dimensioning, dosage calculations and formulas. Course moves at a slower pace than EBS115 Pre- Algebra, includes Basic arithmetic review with an introduction to algebraic reasoning and computation. *This course does not count toward the A.A., A.S., A.A.S., or A.G. S. degree*

Prerequisite: EBS113 Basic Arithmetic with a minimum grade of "C" or better or satisfactory course placement assessment scores

EBS 115 Pre-Algebra**3 Cr Hrs**

Provides students with the skills necessary to be successful in their math courses. The course is designed to identify the student's specific learning style, provide note taking/test taking techniques, and offer math preparation strategies. *This course does not count toward the A.A., A.S., A.A.S., or A.G. S. degree.*

Prerequisite: EBS113 Basic Arithmetic with a minimum grade of "C" or better or satisfactory course placement assessment scores

EBS116 Math Fundamentals **3 Cr Hrs**

Provides students with the skills necessary to be successful in their math courses. The course is designed to identify the student's specific learning style, provide note taking/test taking techniques, and offer math preparation strategies. *This course does not count toward the A.A., A.S., A.A.S., or A.G. S. degree.*

Prerequisite: EBS113 Basic Arithmetic with a minimum grade of "C" or better or satisfactory course placement assessment scores

EBS 120 Elementary Algebra **3 Cr Hrs**

Introduction to variables, properties of real numbers, polynomials, solving linear and quadratic equations and graphing linear equations. This course does not count toward AS, AA, AGS or AAS degrees.

Prerequisite: Minimum grade of "C" or better in EBS 115 Pre-Algebra or satisfactory course placement assessment scores

ECO 105 Principles of Macroeconomics **3 Cr Hrs**

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.

ECO 110 Principles of Microeconomics **3 Cr Hrs**

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

EDU 120 Introduction to Teaching **3 Cr Hrs**

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 prospective teachers an overview of the skills and knowledge needed to be a successful professional. This course must be taken in conjunction with EDU121.

EDU 121 Introduction to Teaching – Field Experience **1 Cr Hrs**

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.

EMP 100 Global Professional Standards **2 Cr Hrs**

This course provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include: human relations skills, job acquisition skills, job retention skills, job advancement skills, and professional image skills.

EMP 105 Career Strategies **1 Cr Hr**

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

ENG 101 Composition I **3 Cr Hrs**

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.

Prerequisite: EBS110 English with a minimum grade of "C" or better or satisfactory course placement assessment scores

ENG 120 Composition II**3 Cr Hrs**

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.

Prerequisite: ENG 101 Composition I with a grade of "C" or better and a passing grade on the Composition I post-test. High school students should have senior standing to enroll in ENG 120 Composition II

ENT 110 Introduction to Entrepreneurship**3 Cr Hrs**

Familiarizes students with the world of small business. Students are introduced to the concepts needed to seek out business opportunities as well as the tools needed to evaluate successful ventures. Considerable attention is given to the concepts of planning, financing and marketing new businesses.

ENT 115 Entrepreneurship II**3 Cr Hrs**

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.

G**GRA 101 Certified Nurse Aide****5 Cr Hrs**

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.

GRA 119 Medication Aide**5 Cr Hrs**

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.

Prerequisite: GRA 101 Certified Nurse Aide or Kansas Certified Nurse Aide certification.

H**HHA 100 Home Health Aide****2 Cr Hrs**

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). **Prerequisite:** GRA 101 Certified Nurse Aide or Kansas Certified Nursing Aide certification.

HIS 110 United States History to 1877**3 Cr Hrs**

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.

HIS 120 United States History since 1865**3 Cr Hrs**

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.

HIS 130 World History I**3 Cr Hrs**

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.

IND 100 Industrial Safety Procedures 1 Cr Hrs

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.

IND 102 Manufacturing Overview 1 Cr Hrs

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.

IND 104 Drafting for Industrial Maintenance 1 Cr Hrs

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.

IND 106 Direct & Alternating Current 4 Cr Hrs

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.

Prerequisite: IND100 or departmental approval


IND 108 Industrial Wiring 2 Cr Hrs

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.

Prerequisite: IND106

IND 109 Basic Industrial Programmable Logic Controls 3 Cr Hrs

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.

Prerequisite: IND116 or departmental approval. 

IND 110 DC & AC Motors 1 Cr Hrs

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.

Prerequisite: IND108

IND 112 Fundamentals of Motor Control 2 Cr Hrs

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.

Prerequisite: IND110

IND 113 Solid State & Digital Devices 3 Cr Hrs

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. **Prerequisite:** IND06 Direct & Alternating Current

IND 114 Magnetic Starters & Braking 2 Cr Hrs

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.

Prerequisite: IND112

IND 116 Advanced Motor Controls

3 Cr Hrs

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.

Prerequisite: IND112

IND 117 Variable Speed Motor Control

2 Cr Hrs

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. **Prerequisite:** IND116

IND 119 Industrial Precision Alignment

3 Cr Hrs

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. **Prerequisite:** IND117

IND 121 Maintenance for Reliability

3 Cr Hrs

This course applies advanced instrumentation in conjunction with principles of mechanical physics, vibration and particulate analysis, thermography, and advanced reliability concepts relative to precision/predictive maintenance of industrial and automated equipment. **Prerequisite:** IND119 or concurrent

IND 123 Industrial Fluid Power & Pumping & Piping Systems

4 Cr Hrs

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.

Prerequisite: IND121 or departmental approval

IND 125 Industrial Computer Applications

2 Cr Hrs

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.

Prerequisite: IND106

IND 130 Industrial Mechanics

3 Cr Hrs

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. Topics include: mechanical tools, fasteners, basic mechanics, lubrication, bearings, packing's and seals. **Prerequisite:** MTH112

IND 131 Industrial Programmable Logic Controls

3 Cr Hrs

This course provides for hands-on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated industrial equipment. Emphasis is placed on applying skills developed in previous courses in programmable logic controls (PLC's) in an industrial setting. This course includes advanced skills necessary to complete the student's knowledge and skills to understand and work with PLC's in an industrial plant.

Prerequisite: IND109 or departmental approval.

IND 132 Industrial Instrumentation

3 Cr Hrs

This course provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: instrument tags; process documentation; basic control theory, sensing pressure, flow, level, and temperature; instrument calibration; and loop tuning.

Prerequisite: IND131 or departmental approval.

IND 155 Advanced Industrial Programmable Logic Controls 3 Cr Hrs

This course addresses the application of knowledge in the area industrial programmable logic controls to industry based experiments/projects. Working in the laboratory students will design and conduct project/experiments based on industry scenarios. Students will also collect and analyze data from projects/experiments for application into the field.

INT 100 Accessories 1 Cr Hr

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.

INT 101 Interior Design Fundamentals 2 Cr Hrs

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.

INT 105 Blueprint Reading for Interior Design 2 Cr Hrs

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 students will learn to draft floor plans. Construction documents, time management, and communication with architects and contractors are included in this course.

INT 110 Color Theory 2 Cr Hrs

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.

INT 126 Textiles 3 Cr Hrs

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.

INT 127 Materials for Interior Environments 2 Cr Hrs

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. ↑

INT 131 Faux and Decorative Painting 4 Cr Hrs

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.

INT 145 History of Furniture & Architecture I 3 Cr Hrs

This course provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces, and accessories from Egyptian period through Medieval. 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.

INT 150 History of Furniture & Architecture II 3 Cr Hrs

This course provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces, and accessories from Renaissance 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.

Prerequisite: INT145 History of Furniture and Architecture I

INT 155 Lighting Technologies 3 Cr Hrs

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.

Prerequisite: INT190 Drafting for Interiors

INT 160 Design Studio I 3 Cr Hrs

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.

Prerequisite: INT101 Interior Design Fundamentals, INT105 Blueprint Reading for Interior Design, INT110 Color Theory, INT126 Textiles, INT127 Materials for Interior Environments, INT145 History of Furniture and Architecture I, INT150 History of Furniture and Architecture II, INT155 Lighting Technologies, INT175 Seminars for Interior Design, INT190 Drafting for Interiors, INT196 Interior Design Codes and Standards, and MCD116 Introduction to CAD

INT 165 Design Studio II 2 Cr Hrs

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.]

Prerequisite: INT160 Design Studio I

INT 170 Business Practices & Portfolio Development 3 Cr Hrs

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.

Prerequisite: INT101 Interior Design Fundamentals, INT105 Blueprint Reading for Interior Design, INT110 Color Theory, INT126 Textiles, INT127 Materials for Interior Environments, INT145 History of Furniture and Architecture I, INT150 History of Furniture and Architecture II, INT155 Lighting Technologies, INT175 Seminars for Interior Design, INT190 Drafting for Interiors, INT196 Interior Design Codes and Standards and MCD116 Introduction to CAD **OR** can be taken in concurrence with INT160 Design Studio I

INT 175 Seminars for Interior Design**2 Cr Hrs**

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, buildings 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.

INT 185 Mentorship for Interior Design**3 Cr Hrs**

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 student will be evaluated by the use of written performance evaluations. Application of interior principles, problem solving, adaptability to job setting, uses of personal skills, development of constructive work habits and ethics, practice confidentially, development of productively and job performance through practice.

Prerequisite: INT160 Design Studio

INT 190 Drafting for Interiors**2 Cr Hrs**

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.

INT 196 Interior Design Codes & Standards**3 Cr Hrs**

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.

INT 201 Floral Design**4 Cr Hrs**

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 work in 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.

INT 215 Kitchen & Bath Design**3 Cr Hrs**

This course is designed to help the student develop advanced skills necessary to design kitchen and 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.

INT 225 Advanced Kitchen & Bath Design**3 Cr Hrs**

This course is designed to help the student develop the advanced knowledge in the design of kitchens and baths. The study an 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.

Prerequisite: INT215 Kitchen and Bath Design and INT190 Drafting for Interiors

INT 235 Computer Technologies for Kitchen & Bath Design**3 Cr Hrs**

This course is designed to help the student develop advanced skills necessary to design and present kitchen and bath solutions through the use of current industry software applications. Project design will be done completely on computer.

Prerequisite: INT216 Kitchen Design

INT 245 Internship for Kitchen & Bath Design**3 Cr Hrs**

This course is designed to help the student develop in-depth application and reinforcement of kitchen and bath employability principles through working in an approved industry environment. This internship allows students to become involved in intensive on the job kitchen and bath application that require full-time concentration, practices, and follow through. The Kitchen and Bath Design Internship is implemented through written performance evaluations.

Prerequisite: INT235 Computer Technologies for Kitchen and Bath Design

J

K

L

LEN 100 Lean for Operations 3 Cr Hrs

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.

LEN 105 Lean Culture – People Systems 3 Cr Hrs

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.

Prerequisite: LEN100 Lean for Operations

LEN 106 Value Stream Alignment 3 Cr Hrs

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.

LEN 109 Lean for Engineering 3 Cr Hrs

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.

Prerequisite: LEN100 Lean for Operations

LEN 110 Lean for Services - Offices 3 Cr Hrs

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.

M

MCD 110 Principles of Tool Design 2 Cr Hrs

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.

MCD 112 Industrial Materials & Processes 2 Cr Hrs

Includes instruction in materials, measurement, specifications, design principles, hardware and fasteners, vocabulary, machine fabrication, geometric dimensioning and tolerancing, Machinery's Handbook, surface finishes and an understanding of the fabrication practices used in manufacturing and construction.

MCD 113 Technical Drafting 3 Cr Hrs

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 American National Standards Institute (ANSI) standards. Students draw introductory drawings to scale.

MCD 114 Architectural Drafting & Design

3 Cr Hrs

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.

Prerequisite: MCD116 Introduction to CAD

MCD 115 Machine Drafting & Design

3 Cr Hrs

Includes instruction in creative design, geometric construction, auxiliaries, dimensioning, sectioning, isometrics, oblique's, specifications and notes, manufacturing engineering techniques and Machinery's Handbook. Includes developing prints of working drawings, researching trade periodicals, learning machine terminology, using ANSI Standards and basic manufacturing blueprint development.

Prerequisite: MCD113 Technical Drafting and MCD121 Descriptive Geometry

MCD 116 Introduction to CAD

5 Cr Hrs

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.

MCD 121 Descriptive Geometry

3 Cr Hrs

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 also create flat pattern layouts to form three-dimensional shapes.

Prerequisite: MCD116 Introduction to CAD

MCD 122 Architectural CAD

4 Cr Hrs

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.

Prerequisite: MCD116 Introduction to CAD

MCD 124 Advanced AutoCAD

4 Cr Hrs

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.

Prerequisite: MCD116 Introduction to CAD

MCD 132 Basic Chief Architect/Architectural Desktop

3 Cr Hrs

Students use 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.

Prerequisite: MCD114 Architectural Drafting & Design

MCD 134 Advanced Chief Architect/Architectural Desktop

3 Cr Hrs

Students use 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.

Prerequisite: MCD132 Basic Chief Architect/Architectural Desktop

MCD 140 Drafting Technology Internship 4 Cr Hrs

Introduces students to the application and reinforcement of drafting and employability principles in an actual job setting. This internship acquaints students 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.

Prerequisite: Instructor approval, must have a drafting position with a company

MCD 201 Geometric Dimensioning and Tolerancing 3 Cr Hrs

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 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 students to clearly understand the concepts.

MCD 205 Residential Drafting 3 Cr Hrs

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.

MCD 206 Commercial Drafting & Design 3 Cr Hrs

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.

MDU 010 Medication Aid Update 1 Cr Hr

Provides the continuing education required every two years by the Kansas Department of Health and Environment for renewal of the medication aide certificate.

Prerequisites: GRA 101 Certified Nurse Aide and GRA119 Medication Aide.

MEA 101 Professional Issues 2 Cr Hrs

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.

Prerequisite: Acceptance/Admission to Medical Assistant program.

MEA 111 Patient Care I 5 Cr Hrs

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

Prerequisite: Acceptance/Admission to Medical Assistant program.

MEA 113 Administrative Aspects 4 Cr Hrs

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.

Prerequisite: CED115 Computer Applications and Acceptance/Admission to Medical Assistant program.

MEA 115 Insurance Billing and Coding 3 Cr Hrs

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.

Prerequisite: ALH101 Medical Terminology, BIO150 Human Anatomy & Physiology

MEA 117 Pharmacology for Allied Health**4 Cr Hrs**

Enables the beginning medical professional to understand the foundation and principles of entry level pharmacology. Provides and introduction to the classifications, effects, side effects and adverse reactions for medications.

MEA 121 Patient Care II**4 Cr Hrs**

Focuses on expanding the knowledge and skills in Patient Care I. More complex and independent procedures performed by the Medial 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).

Prerequisite: Successful completion of all Medical Assistant Program 1st Semester Course Work and Prerequisite course work

MEA 125 Clinical Laboratory Procedures**4 Cr Hrs**

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.

Prerequisites: Successful completion of all Medical Assistant program first-semester coursework and competencies.

MEA 131 Medical Assisting Practicum**6 Cr Hrs**

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).

Prerequisite: Successful completion of Anatomy & Physiology and Medical Terminology. Successful completion of all 1st semester course work and successful completion or con-current enrollment in 2nd semester course work. Only students that successfully complete their first clinical rotation will be assigned a 2nd rotation.

MEA 135 IV Therapy for Medical Assistants**3 Cr Hrs**

Provides the graduate of an ABHES or CAAHEP Medical Assistant program an opportunity to expand current knowledge and expertise in specialized procedure areas and in assisting with the performance of more complex clinical duties.

MEA 210 Advanced Procedures in Medical Assisting**4 Cr Hrs**

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.

MET 101 Fundamentals of Quality Control**3 Cr Hrs**

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.

MGT106 Introduction to Human Resources**3 Cr Hrs**

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.

MMG 102 Blueprint Reading I**2 Cr Hr**

Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies.

MMG 142 Manual Lathes**6 Cr Hrs**

Includes theory and laboratory instruction about basic lathe operations, safety and use and care of hand and machine tools. Addresses basic lathe operations such as turning, facing, drilling, tapping and tool grinding.

MMG 143 Manual Mills**6 Cr Hrs**

Includes theory and laboratory instruction of basic manual mill operations, safety and use and care of hand tools and machine operation and set-ups.

MMG 144 CNC Mills**6 Cr Hrs**

In this course students will take a machine part from conceptual design to fabrication and inspection. The learning environment will include interactive on line course content and hands on learning environment where students utilize CATIA V5 software to design the part and CNC technology to fabricate the part. Learning topics will include prismatic machining, programming for CNC equipment, blueprint reading and precision measurement.

Prerequisites: MMG 155 with a minimum grade of "C" or better or instructor approval

MMG 147 Principles of Machining I**2 Cr Hrs**

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.

MMG 152 CNC Lathes**6 Cr Hrs**

Introduces students to two-axis computer numerical control (CNC) lathe machining. The theory of operations is developed in the classroom 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, angle cutting, and linear cutting.

MMG 225 Machining Internship**4 Cr Hrs**

This internship course offers students opportunities to be employed in their field with a 40-hour work week to expand their work experience related to their field of study.

MTH 101 Intermediate Algebra**3 Cr Hrs**

Simplifying algebraic expressions. Solving equations and word problems involving linear and quadratic polynomials, rational expressions, rational exponents and radicals. Graphing linear and quadratic functions. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.

Prerequisites: Minimum grade of "C" or better in EBS 120 Elementary Algebra or satisfactory course placement assessment scores

MTH 102 Intermediate Algebra With Review**5 Cr Hrs**

Introduction to variables, properties of real numbers, polynomials, solving linear and quadratic equations, and graphing linear equations. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. *This course does not count toward the A.A., A.S., A.A.S., or A.G. S. degree.*

Prerequisites: Minimum grade of "C" or better in EBS 115 Pre-Algebra or satisfactory course placement assessment scores

MTH111 College Algebra with Review**5 Cr Hrs**

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.

Prerequisites: A minimum grade of "C" or better in MTH101 Intermediate Algebra or MTH102 Intermediate Algebra with Review or satisfactory course placement assessment scores

MTH 112 College Algebra**3 Cr Hrs**

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.

Prerequisites: Minimum grade of "C" or better in MTH 101 Intermediate Algebra or satisfactory course placement assessment scores

MTH 113 Trigonometry**3 Cr Hrs**

Trigonometric functions using the unit circle and right angle trigonometry, graphing applications, analytic trigonometry, vectors, trigonometric complex number applications, parametric and polar equations. Students must furnish their own TI-83 or TI-83PLUS graphing calculators.

Prerequisite: Minimum grade of “C” or better MTH 112 College Algebra or satisfactory course placement scores

MTH 115 Pre-Calculus Mathematics**5 Cr Hrs**

This course is an introduction to function theory, algebraic and trigonometric functions and selected topics such as matrices, probability and statistics. This course requires that the student furnish their own TI-83 or TI-84 PLUS graphic calculator.

Prerequisite: MTH113 Trigonometry with a minimum grade of “C” or better or satisfactory course placement assessment scores

MTH 120 Elementary Statistics**3 Cr Hrs**

As an introduction to frequency distributions, measures of central tendency, sampling distributions, T-test and chisquare test, hypotheses’ testing and correlation coefficients. This course requires that students furnish their own TI-83 or TI-84 PLUS graphing calculator.

Prerequisite: Minimum grade of a “C” or better in MTH 112 College Algebra

MTH 125 Calculus I**5 Cr Hrs**

Differentiation and integration of the algebraic, logarithmic and exponential functions. Applications to physical, social, life and business sciences. Students must furnish their own TI-83 or TI-84 Series graphing calculators.

Prerequisite: Minimum grade of “C” or better in MTH 113 Trigonometry, or minimum grade of “C” or better in MTH 112 College Algebra with recent trigonometry in high school or satisfactory course placement assessment scores

MTH 150 Calculus II**5 Cr Hrs**

An extension of MTH 125 Calculus I with topics to include advanced integration techniques, sequences and series, length, area and volumes. Application includes business and life, natural and social sciences. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators.

Prerequisite: A minimum grade of “C” or better in MTH 125 Calculus I

N**NDT 100 Penetrant Inspection****2 Cr Hrs**

Students 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 parallels lecture materials from the classroom.

Prerequisite: NDT104 Materials and Processes for NDT Technology

NDT 101 Magnetic Particle Testing Method for NDT**3 Cr Hrs**

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.

Prerequisite: NDT100 Penetrant Inspection

NDT 102 Radiographic Testing Method I**3 Cr Hrs**

In this course students will master the competencies associated with Radiographic Testing 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.

Prerequisite: NDT101 Magnetic Particle Testing Method for NDT

NDT 103 Radiographic Testing Method II**3 Cr Hrs**

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.

Prerequisite: NDT102 Radiographic Testing Method I

NDT 104 Materials & Processes for NDT Technology 3 Cr Hrs

This introductory course explains the basic principles of material manufacturing processes, discontinuities, and defects as related to the major nondestructive testing methods. This course is an introduction to Level I Magnetic Particle, Liquid Penetrant, Eddy Current, Ultrasonic, and Radiographic courses. This course will give the student an overview of Nondestructive Testing disciplines with regard to identifying defects and proper Nondestructive Inspection (NDI) application.

NDT 110 Eddy Current Level I 3 Cr Hrs

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.

Prerequisite: NDT103 Radiographic Testing Method II

NDT 111 Eddy Current Level II 3 Cr Hrs

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.

Prerequisite: NDT110 Eddy Current Level I

NDT 112 Ultrasonic Testing Method – Level I 3 Cr Hrs

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.

NDT 113 Ultrasonic Testing Method – Level II 3 Cr Hrs

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.

Prerequisite: NDT112 Ultrasonic Testing Method Level I

NDT 114 Visual Inspection 3 Cr Hrs

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.

NDT 116 Bond Testing for NDT 3 Cr Hrs

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.

Prerequisite: NDT111 Eddy Current Level II or NDT113 Ultrasonic Testing Method Level III

NDT 117 Assembly Overview for NDT 3 Cr Hrs

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.

O

OPM 100 Lean Sigma 3 Cr Hrs

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.

OPM 105 Operations Management for Organizational Success 3 Cr Hrs

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.

OPM 110 Introduction to Supply Chain Management 3 Cr Hrs


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.

OPM 115 Introduction to Project Management 3 Cr Hrs

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.

P

PED 110 Lifetime Fitness 1 Cr Hr

Exposes students to facts about and experiences in dealing with motor, physical, physiological, psychological and nutritional aspects of the human being and the responsibility to maintain fitness during a life span. 

PHL110 Ethics 3 Cr Hrs

A practical approach to recognizing, understanding and solving ethical problems confronting individuals in today's society. Basic concepts of applied ethical theories in moral philosophy and reasoning are examined using critical thinking and responsible decision-making skills.

PHR 105 Negotiations & Relationship Management 3 Cr Hrs

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.

PHS 110 Physical Science 5 Cr Hrs

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.

PHS 120 General Physics I 5 Cr Hrs

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 and entropy; Wave Motion - simple harmonic motion, elasticity and the wave equation. This class is designed for those students needing five hours of physics without calculus. This class is taught in the fall semester.

Prerequisites: A minimum grade of "C" or better in MTH 112

PHS 125 General Physics II 5 Cr Hrs

A continuation of General Physics I (PHS 120). Topics include: Electricity and Magnetism - electric potential, current electric power, magnetic field and induction. Optics - nature of light and wave optics. Modern Physics - special relativity, atomic structure, quantum mechanics and radioactivity. This class is taught in the spring semester.

Prerequisites: A minimum grade of "C" or better in PHS 120

PNR 120 KSPN Foundations of Nursing 4 Cr Hrs

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.

Prerequisites: CNA certificate, ALH110, BIO106, BIO150, CED115, PSY101, PSY120, CPR001

PNR 121 KSPN Foundations of Nursing Clinical 2 Cr Hrs

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.

Prerequisites: P-PNR120-CR (concurrent enrollment in PNR 122, 123, 124)

PNR 122 KSPN Pharmacology 3 Cr Hrs

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.

Prerequisites: Concurrent enrollment in PNR120, 121,122,123

PNR 123 KSPN Medical Surgical Nursing I 4 Cr Hrs

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.

Prerequisites: P-PNR124 – CR-(Concurrent enrollment in PNR120, 121,122,123)

PNR 124 KSPN Medical Surgical Nursing I Clinical 3 Cr Hrs

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.

Prerequisites: P-PNR123 – CR-(Concurrent enrollment in PNR120, 121,122,123)

PNR 126 KSPN Medical Surgical Nursing II 4 Cr Hrs

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.

Prerequisites: P-(successful completion of PNR120,121,122,123,124,127) - CR-(concurrent enrollment in PNR126,130,131,132,134,135)

PNR 127 KSPN Medical Surgical Nursing II Clinical 3 Cr Hrs

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.

Prerequisites: P-(successful completion of PNR120,121,122,123,124,127) - CR-(concurrent enrollment in PNR126,130,131,132,134,135)

PNR 130 KSPN Maternal Child Nursing 2 Cr Hrs

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 child-bearing and child-rearing family.

Prerequisites: P-(successful completion of PNR120, 121,122,123,124,131) - CR-(concurrent enrollment in PNR126, 132,134,135)

PNR 131 KSPN Maternal Child Nursing Clinical 1 Cr Hrs

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.

Prerequisites: P-(successful completion of PNR120, 121,122,123,124,131) - CR-(concurrent enrollment in PNR126, 132,134,135)

PNR 132 KSPN Gerontology Nursing 2 Cr Hrs

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.

Prerequisites: P-(successful completion of PNR120, 121,122,123,124)

PNR 134 Role Development 2 Cr Hr

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).

Prerequisites: P-(successful completion of PNR120, 121,122,123,124)

PNR 135 KSPN Mental Health Nursing 2 Cr Hrs

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.

Prerequisites: P-(successful completion of PNR120, 121,122,123,124)

PSS 100 Six Sigma Yellow Belt 1 Cr Hr

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.

PSS 101 Six Sigma Green Belt Methods 3 Cr Hrs

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.

PSS 105 Six Sigma Green Belt Statistics 3 Cr Hrs

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, using data simulation, screening data for errors, manipulating data, performing transformations and focusing on the use of the computer and statistical software as a valuable productivity and data analysis tool.


Prerequisite: PSS101 or consent

PSS 115 Six Sigma Black Belt Methods 3 Cr Hrs

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.

Prerequisite: PSS101 or consent

PSS 120 Six Sigma Black Belt Experimentation & Transfer Function 3 Cr Hrs

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. 

Prerequisite: PSS115 Six Sigma Black Belt Methods

PSY 101 General Psychology 3 Cr Hrs

A general introduction to the scientific study of human behavior as it applies to daily living. Course includes history, basic theories and biological bases of behavior, development, cognitive processes, individual awareness, motivation, emotion, personal adjustment, social psychology, and abnormal psychology and therapies.

PSY 120 Developmental Psychology 3 Cr Hrs

A study of individual development from conception through death. This includes the general areas of biological, physical, cognitive, social, emotional and personality development at each stage of life.

Prerequisite: PSY101 General Psychology with a minimum grade of "C" or better

Q

R

ROB 100 Introduction to Robotics

3 Cr Hrs

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.

ROB 101 Manufacturing Control & Work Cell Interfacing

2 Cr Hr

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.

Prerequisite: ROB 100 and IND 106 or departmental approval

ROB 102 Work Cell Design Laboratory

1 Cr Hrs

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.

Prerequisite: ROB101 or departmental approval

ROB 103 Applied Robotics Lab I

3 Cr Hrs

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.

Prerequisite: ROB102 or departmental approval

ROB 104 Robotics Simulation

2 Cr Hrs

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.

Prerequisite: ROB100 or departmental approval

ROB 106 Robotics Controller Maintenance

2 Cr Hrs

This course will provide the student with basic skills and techniques used in the maintenance and repair of robotic/automated equipment.

Prerequisite: ROB100 and IND106 or departmental approval

ROB 110 Applied Robotics Lab II

3 Cr Hr

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.

Prerequisite: ROB103 or departmental approval

ROB 111 Advanced Robot Controller Programming

2 Cr Hrs

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.

Prerequisite: ROB104 or departmental approval

S

SAF 100 Safety Orientation/OSHA 10**1 Cr Hrs**

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.

SGT 101 Introduction to Surgical Technology**4 Cr Hrs**

This course introduces the role and functions of proper documentation, post and pre-operative 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.

Prerequisite: Completion of BIO150 Human Anatomy & Physiology, BIO160 Microbiology, CPR101 CPR for Health Care Providers with a passing grade of C or better, and selected into the Surgical Technology program

SGT 107 Pharmacology for Surgical Technology**3 Cr Hrs**

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.

Prerequisite: Acceptance into the Surgical Technology Program.

SGT 115 Surgical Procedures I**3 Cr Hrs**

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.

Prerequisite: Concurrent enrollment with SGT120 Principles & Practices in Surgical Technology

SGT 119 Surgical Technology - Clinical Experience I**4 Cr Hr**

Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24 hours per week. Emphasis is placed on basic surgical interventions.

Includes rotations with circulator preceptor and through central processing, transportation team.

Prerequisite: Completion of all Prerequisite courses and all 1st semester courses with a grade of "C" or better.

SGT 120 Principles and Practices in Surgical Technology**5 Cr Hrs**

Presents concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course.

Prerequisite: Completion of BIO150 Human Anatomy & Physiology, BIO160 Microbiology, CPR101 CPR for Health Care Providers with a passing grade of C or better, and selected into the Surgical Technology program

SGT 125 Surgical Procedures II**4 Cr Hrs**

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.

Prerequisite: Completion of SGT115 Surgical Procedures I with passing grade of C or better.

SGT 129 Surgical Technology Clinical Experience II**4 Cr Hrs**

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 pre-operative holding units.

Prerequisite: Completion of SGT119 Surgical Technology - Clinical Experience I with a passing grade of C or better

SGT 130 Surgical Technology Clinical Experience III**3 Cr Hrs**

Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24-27 hours per week. Emphasis is placed on basic, intermediate, and advanced surgical interventions. Includes rotations through labor and delivery, cardiac catheterization lab, and post anesthesia care unit.

Prerequisite: Completion of SGT129 Surgical Technology - Clinical Experience II with a passing grade of C or better

SGT 140 Principles & Practices in Surgical Technology Lab**3 Cr Hrs**

Students will demonstrate concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course.

Prerequisite: Concurrent enrollment in SGT120 Principles & Practices in Surgical Technology

SOC 101 Principles of Sociology **3 Cr Hrs**

An introductory study to acquaint students with the influence and patterns of individuals and group interaction by acquainting students with the development, characteristics and functioning of human groups, the relationships between groups and group influences on individual behavior. It includes the study of how social relationships are created, maintained and changed.

SPH 101 Public Speaking **3 Cr Hrs**

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.

SPH 111 Interpersonal Communication **3 Cr Hrs**

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.

T

TAC 131 Structural Analysis & Damage I **2 Cr Hr**

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.

TAC 132 Structural Damage Analysis & Damage II **2 Cr Hrs**

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.

Prerequisite: TAC 131 Structural Damage Analysis & Damage I.

TAC 133 Structural Analysis & Damage III **3 Cr Hrs**

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. **Prerequisite:** TAC 132 Structural Damage Analysis & Damage II.

TAC 134 Structural Analysis & Damage IV **3 Cr Hrs**

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.

Prerequisite: TAC 133 Structural Damage Analysis & Damage III

TAC 141 Paint & Refinish I **3 Cr Hrs**

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.

TAC 142 Paint & Refinish II **3 Cr Hrs**

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. **Prerequisite:** TAC 141 Paint & Refinish I.

TAC 143 Paint & Refinish III **3 Cr Hrs**

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.

Prerequisite: TAC 141 Paint and Refinish II.

TAC 144 Paint & Refinish IV **4 Cr Hrs**

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.

Prerequisite: TAC 143 Paint and Refinish III.

TAC 151 Nonstructural Analysis & Damage I **4 Cr Hrs**

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.

TAC 152 Nonstructural Analysis & Damage II **4 Cr Hrs**

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 filing 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.

Prerequisite: TAC 151 Nonstructural Damage Analysis & Damage I .

TAC 153 Nonstructural Analysis & Damage III **4 Cr Hrs**

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.

Prerequisite: TAC151 Nonstructural Damage Analysis & Damage II

TAC 154 Nonstructural Analysis & Damage IV 5 Cr Hrs

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 non-structural damage repairs; and perform plastic and adhesive repairs.

Prerequisite: TAC151 Nonstructural Damage Analysis & Damage III

TAC 160 Mechanical & Electrical Components 3 Cr Hrs

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.

TAS 121 Engine Repair 4 Cr Hrs

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.

TAS 123 Suspension & Steering Systems 4 Cr Hrs

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.

TAS 124 Electrical & Electronic Systems I 3 Cr Hrs

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.

TAS 125 Electrical & Electronic Systems II 5 Cr Hrs

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.

Prerequisite: TAS124 Electrical & Electronic Systems I

TAS 126 Manual Transmission/Transaxle & Drive Train 4 Cr Hrs

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.

TAS 127 Automatic Transmission Repair **4 Cr Hrs**

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.

TAS 128 Heating & Air Conditioning **4 Cr Hrs**

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.

TAS 131 Engine Performance I **3 Cr Hrs**

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.

TAS 132 Engine Performance II **5 Cr Hrs**

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.

Prerequisite: TAS131 Engine Performance I

TAS 133 Automotive Brake Systems I **3 Cr Hrs**

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.

TAS 134 Automotive Brake Systems I

1 Cr Hr

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.

Prerequisite: TAS133 Automotive Brake Systems I

TAS 134 Automotive Computer Systems

3 Cr Hr

In this learning plan students will: Receive classroom and laboratory instruction in the operation, diagnosis, service and repair of automotive computer systems. This includes the following computer systems: engine, transmission, air bag, heating and air conditioning, anti-lock brake/traction control/stability control, and driver assistance system.

Prerequisite: TAS133 Automotive Brake Systems I

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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