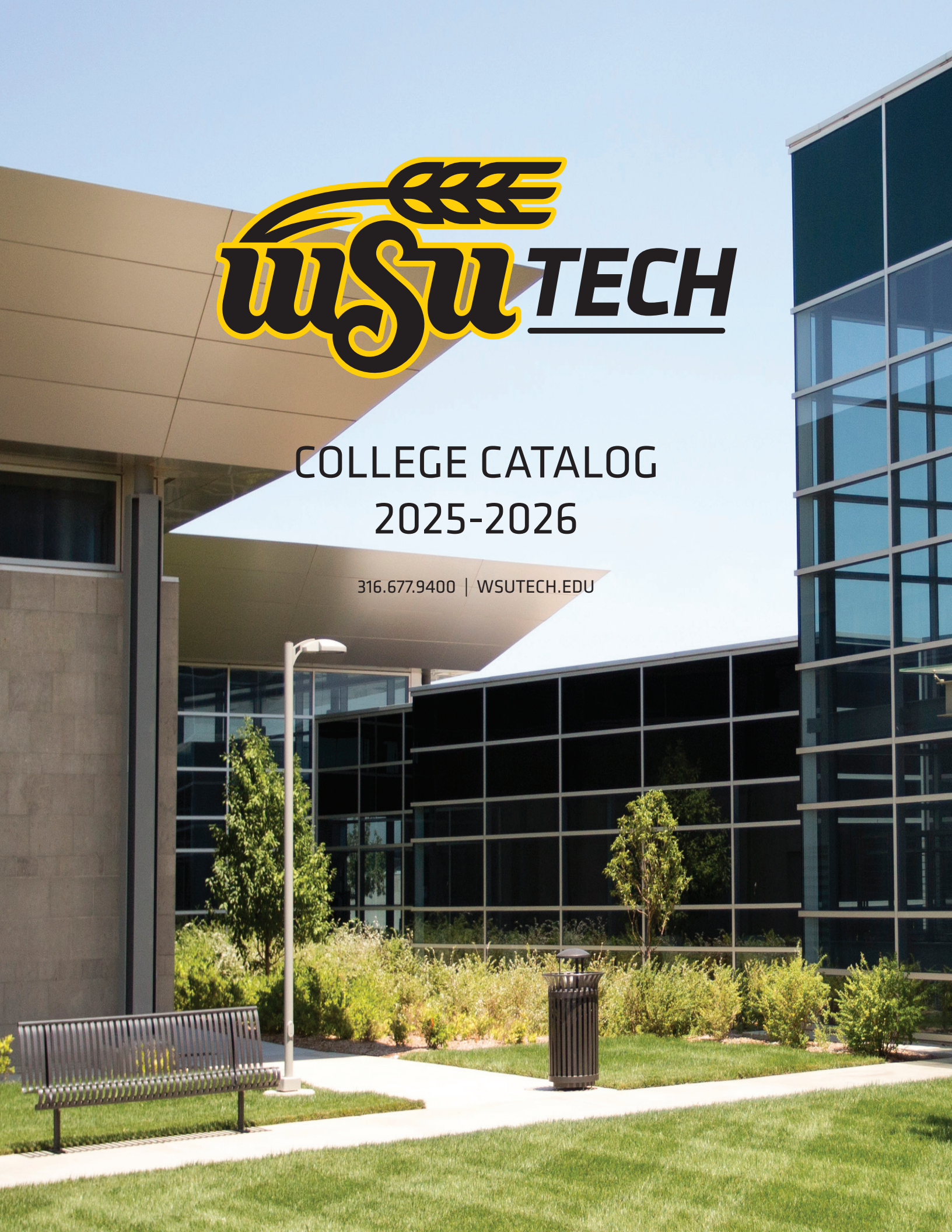

COLLEGE CATALOG
2025-2026

316.677.9400 | WSUTECH.EDU

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WSU Tech has been delivering excellence in education since 1965 with our original campus on 301 S. Grove. WSU Tech continues to build on this tradition with quality instructors, talented students and state-of-the-art technical equipment. Together, these elements help create a hands-on learning environment that promotes participation and prepares students for further education and/or career experiences.

Mission, Vision and Values

Mission

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

Vision

To be one of the nation's most innovative and impactful two-year colleges.

Values: Values Based Culture

The WSU Tech team operates in a valued based culture and strive towards the following behaviors in everything they do.

SAME TEAM. One Role, One Goal: Unite and include many diverse perspectives to achieve our mission.

I Collaborate for Maximum Impact.
I give and accept constructive feedback through open communication.
I foster a fun and healthy environment that encourages relationship building.
I recognize and celebrate achievements of co-workers and students.
I advocate for an inclusive and diverse environment that allows all employees and students to thrive.

PEOPLE FIRST. Treat everyone consistently with compassion, respect, and kindness.

I listen first to understand.
I approach all interactions with empathy and respect.
I serve others with helping hands and a positive attitude.
I remain receptive to new ideas and approach situations with an open mind.
I assume good intentions and respond rather than react.

INTEGRITY. Uphold the highest standards in all our actions.

I exhibit ethical behavior by doing the right thing, even when no one is watching.
I build open and honest relationships.
I make my intentions clear.
I strive to earn trust, loyalty, and respect every day.
I utilize human, financial, and physical resources wisely.

Values Continued:

VISIONARY. Future focused. Redefining education by inspiring innovative ideas, bold explorations, and continuous curiosity.

I take educated risks to remain relevant, nimble and responsive to ever-evolving needs of our communities.
I am resilient when faced with rapid change and challenges.
I support innovation and remain open minded to bold, new ideas.
I demonstrate commitment to life-long learning and personal development.

LEADERSHIP. Leadership is an activity, not a position. Anyone can lead, anytime, anywhere.

I take initiative and do what needs to be done.
I am generous in sharing my knowledge.
I empower others to resolve problems at the first opportunity.
I am responsible for communicating and cascading needed information throughout the college.
I demonstrate good judgment in decision making.

SERVICE TO ALL. Provide exceptional experiences to all that we serve.

I anticipate the needs of each individual and take a solutions-oriented approach.
I model excellence through accountability to myself and others.
I aspire to exceed expectations.
I am committed to providing exceptional experiences.
I act with an attitude of selflessness in all interactions.

Guiding Principles

Provide our students an opportunity to a better life through education and training.
Provide a highly educated and trained workforce for our community to be globally competitive.
Ask ourselves as we make decisions, is it in the best interest of our students, employees and community.

Strategic Plan

2024-2027 Strategic Plan

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

Governance and Structure Continued:

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 WSU Tech.

WSU Tech Industry Advisory Board

The WSU Tech Industry Advisory Board consists of 11 appointed, voting members who establish and publish policies, regulations and procedures pertaining to WSU Tech.

Industry Advocate Teams

Program advisory committees, representatives from business and industry, provide a very important link between WSU Tech and the community. These teams validate learning outcomes deemed essential by business and industry for successful entry or advancement in specific occupations. These teams also monitor the curriculum, recommend instructional equipment and help keep the programs current with emerging technologies.

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.

WSU Tech is fully accredited by The Higher Learning Commission and a member of the North Central Association as of October 2008.

The Higher Learning Commission
230 South LaSalle Street, Suite 7-500 Chicago, IL 60604-1411
Phone: 800.621.7440 / 312.263.0456
Fax: 312.263.7462

Nondiscrimination

WSU Tech does not discriminate with regard to race, color, ethnic or national origin, sex, military status, veteran status, handicap/disability, sexual orientation, religion, age or other non-merit reasons, in admissions, educational programs, activities, or employment.

WSU Tech 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; Title IX, which protects all people regardless of their gender or gender identity from sex discrimination, which includes sexual harassment and sexual violence; 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; Section 504 of the Rehabilitation Act of 1973; and the Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance rules.

The following people have been designated to handle inquiries regarding the non-discrimination policies:

Justin Pfeifer
Vice President of Student Services, Title IX coordinator
3821 E. Harry, Wichita, KS 67218
316-677-1020 | jpfeifer@wsutech.edu

Amber Neises
Vice President, People & Culture
4004 N. Webb Rd, Wichita, KS 67226
316.677.9561 | aneises1@wsutech.edu

Jennifer Stanyer
Assistant Director, Student Accessibility and Support Services
4004 N. Webb Rd, Wichita, KS 67226
316-677-1065 | jstanyer@wsutech.edu

Education Philosophy

WSU Tech is committed to transforming education into opportunity. Students learn through **immersive experiences** that go beyond traditional classrooms—engaging in industry partnerships, authentic workplace simulations, and applied learning opportunities both inside and outside the classroom. Each course is crafted to build essential skills such as problem-solving, effective communication, information analysis, and **workplace readiness**, equipping students to thrive in an ever-evolving professional landscape.

Educational Programs

Students have many educational opportunities at WSU Tech 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, and 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 appropriate Vice President may approve alternative general education courses and acceptance of transfer credits or work experience.

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 WSU Tech.

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.

General Education Courses

WSU Tech 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. WSU Tech'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.

Every degree program incorporates general education courses designed to prepare students with a foundation in computers, written and verbal communication, mathematics, humanities, natural sciences and social sciences. These are also integrated through the core curriculum in WSU Tech's Technical certificate programs.

Policies and Procedures

Locations & Phone Numbers

General Information	316.677.9400
Fax	316.677.9555
Website	wsutech.edu
Emergency Closing Hotline	316.677.9596

NATIONAL CENTER FOR AVIATION TRAINING/JABARA (NCAT)

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

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

CITY CENTER CAMPUS

301 S. Grove | Wichita, KS 67211 | 316.677.9400

Adult Literacy/GED	316.677.1150
General Information	316.677.9440

WSU SOUTH

3821 E. Harry | Wichita, KS | 67218 | 316.677.9400

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

NATIONAL INSTITUTE FOR CULINARY AND HOSPITALITY EDUCATION (NICHE)

124 S. Broadway | Wichita, KS | 67202 | 316.677.9400

Additional Instructional Sites

WSU West

3801 N. Walker Avenue | Maize, KS | 67101 | 316.677.9400

PROGRAMS OF STUDY

2025-2026

WSUTECH.edu

Accounting, AAS

CRN		COURSE NAME	CREDITS
ACC	105	Fundamentals of Accounting	3
ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
ACC	230	Tax Accounting	3
AAD	110	Data Exploration and Interpretation	3
AAD	120	Data Visualization	3
BUS	104	Introduction to Business	3
BUS	130	Personal Finance	3
ACC	137	QuickBooks	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	108	Contemporary Math	3
PHL	110	Ethics	3
SPH	101	Public Speaking	3
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,719.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Accounting, TC

CRN		COURSE NAME	CREDITS
ACC	105	Fundamentals of Accounting	3
ACC	130	Managerial Accounting	3
ACC	160	Principles of Accounting I	3
ACC	170	Principles of Accounting II	3
ACC	230	Tax Accounting	3
AAD	120	Data Visualization	3
AAD	110	Data Exploration and Interpretation	3
BUS	104	Introduction to Business	3
ACC	137	QuickBooks	3
CED	115	Computer Applications	3
ENG	101	Composition I	3
MTH	108	Contemporary Math	3
PHL	110	Ethics	3
SPH	101	Public Speaking	3
Total			**42.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,005.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Aerospace Coatings & Paint Technology, AAS

CRN		COURSE NAME	CREDITS
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 Coatings Processes	3
ACP	105	Specialized Detailing	3
ACP	106	Aerospace Coatings & Materials	3
ACP	111	Technical Co-Operative Project	4
ACP	121	Surface Preparation & Coatings II	3
ACP	124	Specialized Coatings Processes II	4
ACP	145	Environmental Health and Safety	2
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	120	Introduction to Sealing	1
AVC	140	Electrical Bonding & Grounding	1
MCD	106	Precision Measuring	2
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$16,661.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Aerospace Coatings & Paint Technology, TC

CRN		COURSE NAME	CREDITS
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 Coatings Processes	3
ACP	105	Specialized Detailing	3
ACP	106	Aerospace Coatings & Materials	3
ACP	111	Technical Co-Operative Project	4
ACP	121	Surface Preparation & Coatings II	3
ACP	124	Specialized Coatings Processes II	4
ACP	145	Environmental Health and Safety	2
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	120	Introduction to Sealing	1
AVC	140	Electrical Bonding & Grounding	1
MCD	106	Precision Measuring	2
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,565.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Aerospace Manufacturing Technology, AAS

CRN		COURSE NAME	CREDITS
		Technical Electives - 45	**45**
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Technical Electives

ACP	100	Introduction to Coatings & Paint Technology
ACP	101	Surface Preparation & Coatings
ACP	104	Specialized Coating Processes
AER	106	Aerospace Manufacturing Tooling Orientation
AER	111	Tap and Die
AER	115	Aerostructures Assembly
AER	116	Hand Power Tools for Aerospace Tooling
AER	122	Introduction to Light Sport Aircraft, Structural Assembly I, Flight Surfaces
AER	126	Tooling Capstone
AER	135	Quality Assurance Orientation
AER	140	Assembly Mechanic Orientation
AER	150	Assembly Overview I
AER	155	Aerospace Plumbing
AER	157	Advanced Assembly
AER	162	Structural Assembly II, Tailcone & Empennage
AER	165	Electrical Assembly Mechanic Orientation
AER	166	Electrical Hand Tools
AER	167	Drilling & Riveting/Ground Stud Installation
AER	168	Wire Installation Drawings
AER	169	Crimping & Cables
AER	170	Fiber Optics for Aerospace
AER	172	Structural Assembly III, Fuselage Center Section
AER	175	Wire Bundle Basics
AER	177	Structural Assembly IV, Bulkheads & Support Structures
AER	180	Soldering
AER	182	System Assembly V, Fuel System & Flight Controls
AER	185	Wire Bundle Installation
AER	187	System Assembly VI, Landing Gear & Power Plant
AER	192	System Assembly VII, Avionics, Canopy, & Windows
AER	197	System Assembly VIII, Final Assembly & Systems Test
AVC	102	Precision Instruments
AVC	103	Geometric Dimensioning & Tolerancing
AVC	104	Quality Control Concepts
AVC	105	Aircraft Familiarization
AVC	107	Fundamentals for Aerospace Manufacturing
AVC	108	Aircraft Systems & Components
AVC	110	Safety/OSHA 10
AVC	112	Blueprint Reading
AVC	117	Hand & Power Tools
AVC	120	Introduction to Sealing
AVC	125	Bonding and Grounding
AVC	127	Aviation Assembly Core
AVC	135	Hand Tools
AVC	137	Precision Measuring
AVC	140	Electrical Bonding & Grounding
AVC	145	Power Island

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

CRN		COURSE NAME	CREDITS
Technical Elective (continued)			
AVC	150	Human Factors	
AVC	155	Aircraft Manufacturing Advanced Fastening Practices	
AVC	160	Aircraft Control Surface Rigging	
AVC	165	Technical Writing	
AVC	170	Conflict Resolution	
AVC	190	Aerospace Applied Learning	
BUS	121	Business Communications	
CFT	101	Introduction to Composites	
CFT	106	Composite Finish Trim	
CFT	107	Composite Assembly	
CFT	112	Composite Assembly I	
CFT	113	Composite Assembly II	
CFT	130	Composite Fabrication Methods /Applications	
CFT	135	Overview of Composite Inspection	
CFT	140	Composite Inspection	
CWG	103	Blueprint Reading for Welders	
CWG	105	Welding Safety & Orientation	
CWG	110	Welding Applications	
LEN	100	Lean for Operations	
MCD	106	Precision Measuring	
MCD	137	Introduction to 3D Printing	
NDT	114	Visual Inspection	
ROB	100	Introduction to Robotics	
Total			**60.00**

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,767.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Aerospace Manufacturing Technology, TC

CRN		COURSE NAME	CREDITS
AER	115	Aerostructures Assembly	6
AVC	103	Geometric Dimensioning & Tolerancing	1
AVC	105	Aircraft Familiarization	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
AVC	117	Hand & Power Tools	4
AVC	125	Bonding and Grounding	1
AVC	150	Human Factors	1
AVC		**Aviation Assembly Core**	**7**
ACP	100	Introduction to Coatings & Paint Technology	3
CFT	101	Introduction to Composites	2

Aviation Core

AVC	127	Aviation Assembly Core - or all of the following courses	
AVC	102	Precision Instruments	
AVC	104	Quality Control Concepts	
AVC	110	Safety/OSHA 10	
AVC	112	Blueprint Reading	
AVC	120	Introduction to Sealing	
AVC	140	Quality Control Concepts	

Total	**31.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL	**$6,720.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Alternative Fuel Vehicle Maintenance & Advanced Electronics, AAS

CRN		COURSE NAME	CREDITS
AFV	110	Electrical I	3
AFV	120	Electrical II	3
AFV	130	Suspension and Steering I	3
AFV	135	Introduction to Alternative Fuels	3
AFV	140	Engine Repair	4
AFV	145	Hybrid Systems & Maintenance	3
AFV	150	Electric/Fuel Cell Technology	1
AFV	155	High Voltage Battery Technology & Management	3
AFV	160	Brakes I	3
AFV	165	Introduction to CNG and LPG Conversion, Installation & Maintenance	1
AFV	170	Computer Systems for Alternative Fuels	3
AFV	175	Automatic Transmission Repair	4
AFV	180	Heating & Air Conditioning	4
AFV	206	PowerTrain Systems	4
AFV	225	Electrical III	2
TAS	160	Transportation Industry Safety	1
TAS	105	Orientation to the Transportation Industry	1
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
		Math Elective	**3**
Total			**61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,151.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Alternative Fuel Vehicle Maintenance & Advanced Electronics, TC

CRN		COURSE NAME	CREDITS
AFV	110	Electrical I	3
AFV	120	Electrical II	3
AFV	130	Suspension and Steering I	3
AFV	135	Introduction to Alternative Fuels	3
AFV	140	Engine Repair	4
AFV	145	Hybrid Systems & Maintenance	3
AFV	150	Electric/Fuel Cell Technology	1
AFV	155	High Voltage Battery Technology & Management	3
AFV	160	Brakes I	3
AFV	165	Introduction to CNG and LPG Conversion Installation & Maintenance	1
AFV	170	Computer Systems for Alternative Fuels	3
AFV	175	Automatic Transmission Repair	4
AFV	180	Heating & Air Conditioning	4
AFV	206	PowerTrain Systems	4
AFV	225	Electrical III	2
TAS	160	Transportation Industry Safety	1
TAS	105	Orientation to the Transportation Industry	1
Total			**46.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,055.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Architectural Design Technology, AAS

CRN		COURSE NAME	CREDITS
MCD	101	Introduction to CAD I	3
MCD	102	Introduction to CAD II	2
MCD	104	Blueprint Reading for Drafting	2
MCD	106	Precision Measuring	2
MCD	112	Industrial Materials & Processes	2
MCD	114	Architectural Drafting & Design	3
MCD	115	Machine Drafting & Design	3
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
MCD	132	Basic Chief Architect/Architectural Desktop	3
MCD	134	Advanced Chief Architect/Architectural Desktop	3
MCD	164	Residential Design Using Autodesk Revit	4
MCD	205	Residential Drafting	3
MCD	224	Commercial Design Using Autodesk Revit	3
MCD		**Technical Electives - 3 Credits**	**3**
ENG	101	Composition I	3
PDV	115	Work Ethics	2
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Technical Electives

CAT	101	CATIA Parts Design & Sketcher
MCD	130	Basic Solidworks
MCD	133	Advanced Solidworks
MCD	137	Introduction to 3D Printing
MCD	140	Drafting Technology Internship
MCD	156	Intermediate Measuring Instruments
MCD	210	Advanced Measuring

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,999.00**

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

PLACEMENT & WAGE DATA

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Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Architectural Design Technology, TC

CRN		COURSE NAME	CREDITS
MCD	101	Introduction to CAD I	3
MCD	102	Introduction to CAD II	2
MCD	104	Blueprint Reading for Drafting	2
MCD	106	Precision Measuring	2
MCD	112	Industrial Materials & Processes	2
MCD	114	Architectural Drafting & Design	3
MCD	115	Machine Drafting & Design	3
MCD	121	Descriptive Geometry	3
MCD	164	Residential Design Using Autodesk Revit	4
MCD	124	Advanced AutoCAD	4
MCD	132	Basic Chief Architect/Architectural Desktop	3
MCD	134	Advanced Chief Architect/Architectural Desktop	3
PDV	115	Work Ethics	2
		Communication Elective	**3**
		Math Elective	**3**
		Humanities Elective	**3**
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$10,638.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Associate Degree Nurse (A.D.N.), AAS

CRN		COURSE NAME	CREDITS
ADN	120	Introduction to Nursing Concepts	1
ADN	130	Foundational Concepts in Nursing	6
ADN	140	Pharmacological Concepts in Nursing I	2
ADN	150	Professional Nursing Concepts I	4
ADN	160	Client Care Concepts I	6
ADN	170	Pharmacological Concepts in Nursing II	2
ADN	180	Client Care Concepts II	6
ADN	190	Professional Nursing Concepts II	4
ADN	200	Client Care Concepts III	6
ADN	210	Transition to Practice	4
		Electives - 6 Credits	**6**
BIO 110 or CHM 110			
		General Biology or General Chemistry	5
BIO	150	Human Anatomy & Physiology	5
ALH	175	Pathophysiology	4
ENG	101	Composition I	3
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
Electives			
ALH	110	Principles of Nutrition	
SOC	101	Principles of Sociology	
ALH	101	Medical Terminology	
Total			**70.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$19,550.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORPlacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Associate Degree Nurse (A.D.N.) - Bridge Program, AAS

CRN		COURSE NAME	CREDITS
ADN	110	Concepts of Professional Nursing: Transitioning from LPN to RN	4
ADN	120	Introduction to Nursing Concepts	1
ADN	180	Client Care Concepts II	6
ADN	190	Professional Nursing Concepts II	4
ADN	200	Client Care Concepts III	6
ADN	210	Transition to Practice	4
		LPN Transfer Credits (16 Credits)	**16**
		Electives - 6 Credits	**6**
BIO 110 or CHM 110			
		General Biology or General Chemistry	5
BIO	150	Human Anatomy & Physiology	5
ALH	175	Pathophysiology	4
ENG	101	Composition I	3
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
Electives			
ALH	110	Principles of Nutrition	
SOC	101	Principles of Sociology	
ALH	101	Medical Terminology	
Total			**70.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,993.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORPlacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Automotive Technology, AAS

CRN		COURSE NAME	CREDITS
TAS	105	Orientation to the Transportation Industry	1
TAS	121	Engine Repair	4
TAS	124	Electrical I	3
TAS	125	Electrical II	3
TAS	127	Automatic Transmission Repair	4
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	132	Engine Performance II	3
TAS	133	Brakes I	3
TAS	134	Brakes II for Automotive	1
TAS	135	Computer Systems for Automotive	3
TAS	136	Suspension and Steering I	3
TAS	137	Suspension and Steering II	2
TAS	150	Specialized Training	2
TAS	160	Transportation Industry Safety	1
TAS	206	PowerTrain Systems	4
TAS	225	Electrical III	2
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
		Math Elective	**3**
Total			**61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,151.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Automotive Technology, TC

CRN		COURSE NAME	CREDITS
TAS	105	Orientation to the Transportation Industry	1
TAS	121	Engine Repair	4
TAS	124	Electrical I	3
TAS	125	Electrical II	3
TAS	127	Automatic Transmission Repair	4
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	132	Engine Performance II	3
TAS	133	Brakes I	3
TAS	134	Brakes II for Automotive	1
TAS	135	Computer Systems for Automotive	3
TAS	136	Suspension and Steering I	3
TAS	137	Suspension and Steering II	2
TAS	150	Specialized Training	2
TAS	160	Transportation Industry Safety	1
TAS	206	PowerTrain Systems	4
TAS	225	Electrical III	2
MTH	108	Contemporary Math	3
Total			**49.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,531.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Aviation Maintenance Airframe, TC

CRN		COURSE NAME	CREDITS
AMT	233	Airframe I	4
AMT	234	Airframe II	5
AMT	235	Airframe III	5
AMT	236	Airframe IV	5
AMT	237	Airframe V	5
AMT	238	Airframe VI	5
AMT	239	Airframe VII	5
Total			**34.00**

All AMT program students are required to purchase tool kits via WSU Tech. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WSU Tech.

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,485.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Aviation Maintenance General, TC

CRN	COURSE NAME	CREDITS
AMT 187	General I	4
AMT 188	General II	4
AMT 189	General III	5
AMT 190	General IV	5
Total		**18.00**

All AMT program students are required to purchase tool kits via WSU Tech. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WSU Tech.

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$6,795.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Aviation Maintenance Powerplant, TC

CRN	COURSE NAME	CREDITS
AMT 253	Powerplant I	4
AMT 254	Powerplant II	5
AMT 255	Powerplant III	5
AMT 256	Powerplant IV	6
AMT 257	Powerplant V	5
Total		**25.00**

All AMT program students are required to purchase tool kits via WSU Tech. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WSU Tech.

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$10,425.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Aviation Maintenance Technology, AAS

CRN		COURSE NAME	CREDITS
AMT	187	General I	4
AMT	188	General II	4
AMT	189	General III	5
AMT	190	General IV	5
AMT	233	Airframe I	4
AMT	234	Airframe II	5
AMT	235	Airframe III	5
AMT	236	Airframe IV	5
AMT	237	Airframe V	5
AMT	238	Airframe VI	5
AMT	239	Airframe VII	5
AMT	253	Powerplant I	4
AMT	254	Powerplant II	5
AMT	255	Powerplant III	5
AMT	256	Powerplant IV	6
AMT	257	Powerplant V	5
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**92.00**

All AMT program students are required to purchase tool kits via WSU Tech. This purchase will be made in the Airframe 2 and PowerPlant 2 semesters of the program. Tools may not be purchased outside of WSU Tech.

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$32,801.00**

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

PLACEMENT & WAGE DATA

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Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Aviation Sheetmetal Assembly CBE, TC

CRN		COURSE NAME	CREDITS
AER	150	Assembly Overview I	3
AER	157	Advanced Assembly	3
AVC	104	Quality Control Concepts	1
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	117	Hand & Power Tools	4
AVC	137	Precision Measuring	2
AVC	140	Electrical Bonding & Grounding	1
Total			**17.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$4,485.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Aviation Sheetmetal Assembly, TC

CRN		COURSE NAME	CREDITS
AER	115	Aerostructures Assembly	6
AVC	117	Hand & Power Tools	4
AVC	127	Aviation Assembly Core	7
Total			**17.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$4,420.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Avionics Technology, AAS

CRN		COURSE NAME	CREDITS
AVT	128	Electricity & Electronics I	4
AVT	146	Avionics	3
AVT	230	Avionics Systems & Troubleshooting	5
AVT	156	Wiring & Cannon Plug Lab	2
AVT	210	Communication, Navigation & Surveillance Systems I	5
AVT	220	Communication, Navigation & Surveillance Systems II	4
AVT	240	Aircraft and Electronics for NCATT Applications	4
AVT	138	Electricity and Electronics II	4
AVT	118	Fundamentals of Flight	3
AVT	175	Troubleshooting Essentials	3
AVT	185	UAS Operations	3
AVT	166	Advanced Wiring	3
AVT	195	Soldering	2
ENG	101	Composition I	3
		Communication Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
		Humanities Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,146.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Avionics Technology, TC

CRN		COURSE NAME	CREDITS
AVT	128	Electricity & Electronics I	4
AVT	146	Avionics	3
AVT	230	Avionics Systems & Troubleshooting	5
AVT	156	Wiring & Cannon Plug Lab	2
AVT	210	Communication, Navigation & Surveillance Systems I	5
AVT	220	Communication, Navigation & Surveillance Systems II	4
AVT	240	Aircraft and Electronics for NCATT Applications	4
AVT	138	Electricity and Electronics II	4
AVT	118	Fundamentals of Flight	3
AVT	175	Troubleshooting Essentials	3
AVT	185	UAS Operations	3
AVT	166	Advanced Wiring	3
AVT	195	Soldering	2
		Math Elective	**3**
Total			**48.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,455.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Business Administration, AAS

CRN		COURSE NAME	CREDITS
ACC	105	Fundamentals of Accounting	3
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	121	Business Communications	3
BUS	140	Principles of Marketing	3
BUS	200	Principles of Management	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
ENG	101	Composition I	3
ENG	120	Composition II	3
ENT	110	Introduction to Entrepreneurship	3
MTH	112	College Algebra	3
MTH	120	Elementary Statistics	3
PHL	115	Logic	3
PSY	101	General Psychology	3
SPH	101	Public Speaking	3
		Electives - 3 Credits	**3**
		Humanities Elective	**3**

Electives

BUS	130	Personal Finance	
BUS	180	Business Internship	
BUS	137	QuickBooks	

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,189.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Certified Medication Aide, COC

CRN		COURSE NAME	CREDITS
CMA	119	Medication Aide	5
Total			**5.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$922.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Certified Nurse Aide, COC

CRN		COURSE NAME	CREDITS
CNA	101	Certified Nurse Aide	5
Total			**5.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$922.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Climate and Energy Control (HVAC) (Cert B), TC

CRN		COURSE NAME	CREDITS
ACR	112	HVAC Fundamentals	4
ACR	113	Electrical Fundamentals	4
ACR	116	Workplace Skills	1
ACR	117	Intro to Mechanical Refrigeration	4
ACR	118	Electrical Fundamentals II	3
ACR	121	Heating System Fundamentals	3
ACR	122	Heating System Fundamentals II	3
ACR	123	Heat Loads and Duct Sizing	2
ACR	124	Advanced Heating Systems	3
ACR	126	EPA 608	1
ACR	127	Heat Pumps	4
ACR	128	Commercial HVAC	4
ACR	129	Commercial HVAC Lab	4
ACR	140	Sheet Metal Fabrication I	3
SAF	101	Safety Orientation/OSHA 10	1
Total			**44.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$11,852.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Climate and Energy Control (HVAC) (Cert C), TC

CRN		COURSE NAME	CREDITS
ACR	112	HVAC Fundamentals	4
ACR	113	Electrical Fundamentals	4
ACR	116	Workplace Skills	1
ACR	117	Intro to Mechanical Refrigeration	4
ACR	118	Electrical Fundamentals II	3
ACR	119	Advanced Electrical Theory for HVAC	2
ACR	121	Heating System Fundamentals	3
ACR	122	Heating System Fundamentals II	3
ACR	124	Advanced Heating Systems	3
ACR	126	EPA 608	1
ACR	127	Heat Pumps	4
ACR	128	Commercial HVAC	4
ACR	129	Commercial HVAC Lab	4
SAF	101	Safety Orientation/OSHA 10	1
ACR	210	Automation Controls & Sensors	3
ACR	220	Building Management Systems (BMS)	3
ACR	230	Data Analytics for Building Performance	3
Total			**50.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,341.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Climate and Energy Control (HVAC), AAS

CRN		COURSE NAME	CREDITS
ACR	112	HVAC Fundamentals	4
ACR	113	Electrical Fundamentals	4
ACR	116	Workplace Skills	1
ACR	117	Intro to Mechanical Refrigeration	4
ACR	118	Electrical Fundamentals II	3
ACR	119	Advanced Electrical Theory for HVAC	2
ACR	121	Heating System Fundamentals	3
ACR	122	Heating System Fundamentals II	3
ACR	124	Advanced Heating Systems	3
ACR	126	EPA 608	1
ACR	127	Heat Pumps	4
ACR	128	Commercial HVAC	4
ACR	129	Commercial HVAC Lab	4
ACR		**Technical Electives - 5 Credits**	**5**
SAF	101	Safety Orientation/OSHA 10	1
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**

Technical Electives

ACR	123	Heat Loads and Duct Sizing
ACR	140	Sheet Metal Fabrication
ACR	210	Automation Controls & Sensors
ACR	220	Building Management Systems (BMS)
ACR	230	Data Analytics for Building Performance

Total **61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,468.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Cloud Computing/Cloud Application Development, AAS

CRN		COURSE NAME	CREDITS
CLD	113	Introduction to Python	3
CLD	118	Cloud Fundamentals	3
CLD	121	Object-Oriented Programming (JavaScript)	3
CLD	122	Introduction to Web Development	3
CLD	126	Test Driven Development (JavaScript)	3
CLD	138	Object-Oriented Programming (Python)	3
CLD	143	Web Application Development I (HTML/CSS)	3
CLD	152	Web Application Development II (REACT)	3
CLD	166	Cloud Application Development I (REACT on AWS)	3
CLD	168	AWS Cloud Practitioner	3
CLD	170	Cloud Application Development II (Serverless REACT on AWS)	3
CLD		**Experiential Learning - 3 Credits**	**3**
CLD Or INF		**Information Technology Electives - 12 Credits**	**12**
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
		Math Elective	**3**

Cloud Computing Electives

CLD	129	Programming Foundations (Swift iOS)	
CLD	137	C# Programming Language	
CLD	141	Test Driven Development (Python)	
CLD	147	Website Production & Management (Word Press)	
CLD	158	Multi-Cloud Development Services	
CLD	169	Machine Learning and AI Foundations with Predictive Analytics	
INF	105	CompTIA A+ Core 1	
INF	112	Network Essentials	

Experiential Learning

CLD	175	Information Technology Internship	
CLD	174	Capstone	

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,924.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Cloud Computing/Cloud Application Development, TC

CRN		COURSE NAME	CREDITS
CLD	113	Introduction to Python	3
CLD	118	Cloud Fundamentals	3
CLD	121	Object-Oriented Programming (JavaScript)	3
CLD	122	Introduction to Web Development	3
CLD	126	Test Driven Development (JavaScript)	3
CLD	138	Object-Oriented Programming (Python)	3
CLD	143	Web Application Development I (HTML/CSS)	3
CLD	152	Web Application Development II (REACT)	3
CLD	166	Cloud Application Development I (REACT on AWS)	3
CLD	168	AWS Cloud Practitioner	3
CLD	170	Cloud Application Development II (Serverless REACT on AWS)	3
CLD Or INF		**Information Technology Electives - 12 Credits**	**12**
CLD		**Experiential Learning - 3 Credits**	**3**
Cloud Computing Electives			
CLD	129	Programming Foundations (Swift iOS)	
CLD	137	C# Programming Language	
CLD	141	Test Driven Development (Python)	
CLD	147	Website Production & Management (Word Press)	
CLD	158	Multi-Cloud Development Services	
CLD	169	Machine Learning and AI Foundations with Predictive Analytics	
INF	105	CompTIA A+ Core 1	
INF	112	Network Essentials	
Experiential Learning			
CLD	175	Information Technology Internship	
CLD	174	Capstone	
Total			**48.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,709.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Cloud Programming/Cloud Application Development, TC

CRN		COURSE NAME	CREDITS
CLD	113	Introduction to Python	3
CLD	121	Object-Oriented Programming (JavaScript)	3
CLD	126	Test Driven Development (JavaScript)	3
CLD	137	C# Programming Language	3
CLD	138	Object-Oriented Programming (Python)	3
CLD	141	Test Driven Development (Python)	3
Total			**18.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$4,391.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

CNC Operator (Machining & Manufacturing Technology), TC

CRN		COURSE NAME	CREDITS
MMG	113	Print Reading	3
MMG	116	Quality Control & Inspection	1
MMG	131	Metallurgy	1
MMG	135	Machining Fundamentals	3
MMG	155	CNC Lathe	3
MMG	156	CNC Operations	3
MMG	160	CNC Milling I	3
AVC	110	Safety/OSHA 10	1
PDV	115	Work Ethics	2
Total			**20.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,157.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Composite Fabrication CBE, TC

CRN		COURSE NAME	CREDITS
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/Applications	2
AVC	102	Precision Instruments	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	117	Hand & Power Tools	4
AVC	120	Introduction to Sealing	1
AVC	140	Electrical Bonding & Grounding	1
Total			**20.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$6,225.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Composite Fabrication, TC

CRN		COURSE NAME	CREDITS
CFT	101	Introduction to Composites	2
CFT	106	Composite Finish Trim	2
CFT	107	Composite Assembly	2
CFT	130	Composite Fabrication Methods/Applications	2
AVC	102	Precision Instruments	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	117	Hand & Power Tools	4
AVC	120	Introduction to Sealing	1
AVC	140	Electrical Bonding & Grounding	1
Total			**20.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$6,225.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Composite Repair, TC

CRN		COURSE NAME	CREDITS
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	Disassemble & Damage Removal Techniques	3
CFT	142	Composite Repair	4
CFT	143	Complex Composite Repairs	3
CFT	144	Electrical Bonding Repair	1
AVC	102	Precision Instruments	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	117	Hand & Power Tools	4
AVC	120	Introduction to Sealing	1
AVC	125	Bonding and Grounding	1
AVC	140	Electrical Bonding & Grounding	1
		Communication Elective	**3**
		Humanities Elective	**3**
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,535.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Composite Technology, AAS

CRN		COURSE NAME	CREDITS
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	Disassemble & Damage Removal Techniques	3
CFT	142	Composite Repair	4
CFT	143	Complex Composite Repairs	3
CFT	144	Electrical Bonding Repair	1
AVC	102	Precision Instruments	1
AVC	104	Quality Control Concepts	1
AVC	105	Aircraft Familiarization	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	108	Aircraft Systems & Components	4
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	117	Hand & Power Tools	4
AVC	120	Introduction to Sealing	1
AVC	125	Bonding and Grounding	1
AVC	140	Electrical Bonding & Grounding	1
LEN	100	Lean for Operations	3
ENG	101	Composition I	3
		Technical Electives - 3 Credits	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Technical Electives

AVC	103	Geometric Dimensioning & Tolerancing
AVC	137	Precision Measuring
AVC	150	Human Factors
AVC	155	Aircraft Manufacturing Advanced Fastening Practices
AVC	160	Aircraft Control Surface Rigging
AVC	165	Technical Writing
AVC	170	Conflict Resolution
AVC	190	Aerospace Applied Learning

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$16,077.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Computer Support Specialist (Cert A), TC

CRN		COURSE NAME	CREDITS
INF	105	CompTIA A+ Core 1	3
INF	110	CompTIA A+ Core 2	3
INF	112	Network Essentials	3
INF	115	Network+ Part I	3
INF	116	Network+ Part II	3
INF	139	Cybersecurity Essentials	3
Total			**18.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$3,960.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Computer Support Specialist, AAS

CRN		COURSE NAME	CREDITS
INF	105	CompTIA A+ Core 1	3
INF	110	CompTIA A+ Core 2	3
INF	112	Network Essentials	3
INF	115	Network+ Part I	3
INF	116	Network+ Part II	3
INF	120	Security+	3
INF	134	Server +	3
INF	139	Cybersecurity Essentials	3
INF	142	Cloud+	3
INF	144	Virtualization	3
INF	164	Switching, Routing, and Wireless Essentials	3
INF	167	Enterprise Networking, Security, and Automation	3
INF	172	Multi-Cloud Networking	3
INF		**Information Systems Electives - 6 Credits**	**6**
INF		**Experiential Learning Electives - 3 Credits**	**3**
CED	115	Computer Applications	3
ENG	101	Composition I	3
		Communication Elective	**3**
		Social Science Elective	**3**
		Math Elective	**3**

Information Systems Electives

INF	113	Introduction to Programming
INF	127	Linux
INF	136	Introduction to PowerShell
INF	154	Ethical Hacker
INF	160	Server Security
INF	165	Advanced Cyber Security
CLD	138	Object-Oriented Programming (Python)
CLD	168	AWS Cloud Practitioner

Experiential Learning Electives

INF	174	Information Technology Capstone
INF	175	Information Technology Internship

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,527.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Computer Support Specialist, TC

CRN		COURSE NAME	CREDITS
INF	105	CompTIA A+ Core 1	3
INF	110	CompTIA A+ Core 2	3
INF	112	Network Essentials	3
INF	115	Network+ Part I	3
INF	116	Network+ Part II	3
INF	120	Security+	3
INF	134	Server +	3
INF	139	Cybersecurity Essentials	3
INF	142	Cloud+	3
INF	144	Virtualization	3
INF	164	Switching, Routing, and Wireless Essentials	3
INF	167	Enterprise Networking, Security, and Automation	3
INF	172	Multi-Cloud Networking	3
INF		**Experiential Learning Electives - 3 Credits**	**3**

Experiential Learning Electives

INF	174	Information Technology Capstone	
INF	175	Information Technology Internship	

Total	**42.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL	**$10,813.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Computer Support Specialist with Emphasis in Cyber Security, TC

CRN		COURSE NAME	CREDITS
INF	105	CompTIA A+ Core 1	3
INF	110	CompTIA A+ Core 2	3
INF	112	Network Essentials	3
INF	113	Introduction to Programming	3
INF	115	Network+ Part I	3
INF	116	Network+ Part II	3
INF	120	Security+	3
INF	134	Server +	3
INF	136	Introduction to PowerShell	3
INF	139	Cybersecurity Essentials	3
INF	154	Ethical Hacker	3
INF	160	Server Security	3
INF	165	Advanced Cyber Security	3
INF		**Experiential Learning Electives - 3 Credits**	**3**

Experiential Learning Electives

INF	174	Information Technology Capstone	
INF	175	Information Technology Internship	

Total	**42.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL	**$10,699.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Computer Support Specialist with Emphasis in Cyber Security, AAS

CRN		COURSE NAME	CREDITS
INF	105	CompTIA A+ Core 1	3
INF	110	CompTIA A+ Core 2	3
INF	112	Network Essentials	3
INF	113	Introduction to Programming	3
INF	115	Network+ Part I	3
INF	116	Network+ Part II	3
INF	120	Security+	3
INF	134	Server +	3
INF	136	Introduction to PowerShell	3
INF	139	Cybersecurity Essentials	3
INF	154	Ethical Hacker	3
INF	160	Server Security	3
INF	165	Advanced Cyber Security	3
INF		**Information Systems Electives - 6 Credits**	**6**
INF		**Experiential Learning Electives - 3 Credits**	**3**
ENG	101	Composition I	3
CED	115	Computer Applications	3
		Communication Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Information Systems Electives

INF	127	Linux
INF	142	Cloud+
INF	144	Virtualization
INF	164	Switching, Routing, and Wireless Essentials
INF	167	Enterprise Networking, Security, and Automation
INF	172	Multi-Cloud Networking
CLD	138	Object-Oriented Programming (Python)
CLD	168	AWS Cloud Practitioner

Experiential Learning Electives

INF	174	Information Technology Capstone
INF	175	Information Technology Internship

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,413.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Construction Technology, AAS

CRN		COURSE NAME	CREDITS
CCP	100	Introductory Craft Skills	3
CCP	108	Construction Basics	2
CCP	112	Carpentry I	3
CCP	122	Carpentry II	4
CCP	124	Exterior Envelope	3
CCP	128	Interior Systems	2
CCP	134	Introduction to Concrete Construction	3
CCP	138	Advanced Framing	3
CCP	144	Advanced Finish and Trim	3
CCP	148	Vertical and Horizontal Formwork	3
CCP	154	Finishing Concrete	2
CCP	155	FEMA Doors & Hardware	1
CCP	168	Equipment Operation	3
CCP	172	Fundamentals of Crew Leadership	2
CCP	180	Cabinet Installation	1
CCP	185	Carpentry Internship I	3
CCP	187	Carpentry Internship II	3
SAF	101	Safety Orientation/OSHA 10	1
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
		Math Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,861.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Construction Technology Level 1, TC

CRN		COURSE NAME	CREDITS
SAF	101	Safety Orientation/OSHA 10	1
CCP	100	Introductory Craft Skills	3
CCP	108	Construction Basics	2
CCP	112	Carpentry I	3
CCP	122	Carpentry II	4
CCP	124	Exterior Envelope	3
CCP	134	Introduction to Concrete Construction	3
Total			**19.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,005.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Construction Technology Level 2, TC

CRN		COURSE NAME	CREDITS
CCP	100	Introductory Craft Skills	3
CCP	108	Construction Basics	2
CCP	112	Carpentry I	3
CCP	122	Carpentry II	4
CCP	124	Exterior Envelope	3
CCP	128	Interior Systems	2
CCP	134	Introduction to Concrete Construction	3
CCP	172	Fundamentals of Crew Leadership	2
CCP	138	Advanced Framing	3
CCP	144	Advanced Finish and Trim	3
CCP	148	Vertical and Horizontal Formwork	3
CCP	155	FEMA Doors & Hardware	1
CCP	180	Cabinet Installation	1
SAF	101	Safety Orientation/OSHA 10	1
Total			**34.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$8,905.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Construction Technology Level 3, TC

CRN		COURSE NAME	CREDITS
CCP	100	Introductory Craft Skills	3
CCP	108	Construction Basics	2
CCP	112	Carpentry I	3
CCP	122	Carpentry II	4
CCP	124	Exterior Envelope	3
CCP	128	Interior Systems	2
CCP	134	Introduction to Concrete Construction	3
CCP	172	Fundamentals of Crew Leadership	2
CCP	138	Advanced Framing	3
CCP	144	Advanced Finish and Trim	3
CCP	148	Vertical and Horizontal Formwork	3
CCP	155	FEMA Doors & Hardware	1
CCP	180	Cabinet Installation	1
CCP	154	Finishing Concrete	2
CCP	168	Equipment Operation	3
CCP	185	Carpentry Internship I	3
CCP	187	Carpentry Internship II	3
SAF	101	Safety Orientation/OSHA 10	1
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$11,765.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Criminal Justice, AAS

CRN		COURSE NAME	CREDITS
CRJ	101	Introduction to Criminal Justice	3
CRJ	105	Criminal Investigation	3
CRJ	110	Criminal Law	3
CRJ	115	Agency Administration	3
CRJ	120	Juvenile Delinquency and Justice	3
CRJ	125	Law Enforcement Operations and Procedures	3
CRJ	130	Criminal Procedures	3
CRJ	135	Criminal Justice Interview and Report Writing	3
CRJ	140	Professional Responsibility in Criminal Justice	3
CRJ	145	Corrections	3
CRJ	155	Policing Diverse Cultures	3
CRJ	160	Internship in Criminal Justice	3
CRJ	180	KLETC or Equivalent Law Enforcement Academy Training	12
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
HIS	120	United States History since 1865	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**67.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,973.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Criminal Justice, TC

CRN		COURSE NAME	CREDITS
CRJ	101	Introduction to Criminal Justice	3
CRJ	105	Criminal Investigation	3
CRJ	110	Criminal Law	3
CRJ	115	Agency Administration	3
CRJ	120	Juvenile Delinquency and Justice	3
CRJ	125	Law Enforcement Operations and Procedures	3
CRJ	130	Criminal Procedures	3
CRJ	135	Criminal Justice Interview and Report Writing	3
CRJ	140	Professional Responsibility in Criminal Justice	3
CRJ	145	Corrections	3
CRJ	155	Policing Diverse Cultures	3
CRJ	160	Internship in Criminal Justice	3
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
Total			**46.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,138.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Culinary Arts, AAS

CRN		COURSE NAME	CREDITS
CUL	105	Culinary Fundamentals	3
CUL	115	Culinary Nutrition	3
CUL	120	Modern Banquet Cookery	3
CUL	125	Baking & Pastry Skill Development	3
CUL	130	Culinary Innovation & Sustainability	3
CUL	133	Bistro Practicum I	3
CUL	135	Cuisines and Cultures of the United States	3
CUL	145	Cuisines and Cultures of the Mediterranean	3
CUL	150	Cuisines and Cultures of Northern Europe	3
CUL	155	Cuisines and Cultures of Asia	3
CUL		**Culinary Arts Electives - 12 Credits**	**12**
HEM	105	Sanitation and Safety	1
HEM	115	Introduction to the Hospitality Industry	3
ENG	101	Composition I	3
SPH	111	Interpersonal Communication	3
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Culinary Arts Electives

CUL	110	Introduction to Gastronomy & Sustainability
CUL	137	Bistro Practicum II
CUL	140	Global Cuisines and Cultures
CUL	143	Bistro Practicum III
CUL	147	Bistro Practicum IV
CUL	160	Garde Manger
CUL	165	Culinary Arts Internship
CUL	170	Advanced Baking: Chocolate and Confectionary Techniques
CUL	175	Advanced Baking: Cakes and Desserts
CUL	180	Advanced Baking: Breads and Rolls
HEM	205	Alcohol Beverage Law
HEM	210	Beer
HEM	225	Wine Fundamentals
HEM	230	Mixology

Total **61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU Tech NICHE
124 S. Broadway | Wichita, KS 67202
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$17,028.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Culinary Arts, TC

CRN		COURSE NAME	CREDITS
CUL	105	Culinary Fundamentals	3
CUL	115	Culinary Nutrition	3
CUL	120	Modern Banquet Cookery	3
CUL	125	Baking & Pastry Skill Development	3
CUL	133	Bistro Practicum I	3
HEM	105	Sanitation and Safety	1
HEM	115	Introduction to the Hospitality Industry	3
SPH	111	Interpersonal Communication	3
		Math Elective	**3**
Total			**25.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU Tech NICHE
124 S. Broadway | Wichita, KS 67202
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,170.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Digital Marketing, AAS

CRN		COURSE NAME	CREDITS
DMK	110	Introduction to Media Arts	3
DMK	120	Basic Digital Editing	3
DMK	125	Community Building and Management	3
DMK	135	Social Media Marketing and Management	3
DMK	140	Introduction to Audio/Visual Production	3
DMK	150	Search Engine Optimization & Marketing	3
DMK	155	Photography Fundamentals	2
DMK	160	Introduction to Analytics	3
DMK	163	Introduction to Digital Advertising	3
DMK		**Experiential Learning Electives - 4 Credits**	**4**
		Technical Electives - 3 Credits	**3**
BUS	140	Principles of Marketing	3
CLD	122	Introduction to Web Development	3
CLD	147	Website Production & Management Word Press)	3
OPM	115	Introduction to Project Management	3
ENG	101	Composition I	3
ENG	120	Composition II	3
SPH	101	Public Speaking	3
		Humanities Elective	**3**
		Math Elective	**3**

Experiential Learning Electives

DMK	170	Digital Marketing Capstone
DMK	175	Digital Marketing Internship

Technical Electives

BUS	135	Introduction to Public Relations
ESP	150	Esports Event Management and Production

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$11,878.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Digital Marketing, TC

CRN		COURSE NAME	CREDITS
DMK	110	Introduction to Media Arts	3
DMK	120	Basic Digital Editing	3
DMK	125	Community Building and Management	3
DMK	135	Social Media Marketing and Management	3
DMK	140	Introduction to Audio/Visual Production	3
DMK	150	Search Engine Optimization & Marketing	3
DMK	155	Photography Fundamentals	2
DMK	160	Introduction to Analytics	3
DMK	163	Introduction to Digital Advertising	3
CLD	122	Introduction to Web Development	3
CLD	147	Website Production & Management (Word Press)	3
BUS	140	Principles of Marketing	3
ENG	101	Composition I	3
ENG	120	Composition II	3
Total			**41.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$8,902.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Eddy Current Technician, COC

CRN		COURSE NAME	CREDITS
NDT	106	Formulations and Calculations	2
NDT	110	Eddy Current Level I	3
NDT	111	Eddy Current Level II	3
Total			**8.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$2,400.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Education, AAS

CRN		COURSE NAME	CREDITS
EDU	120	Introduction to Teaching	3
EDU	140	Children's Literature	3
EDU	160	Educational Technology	3
EDU	180	Educating Exceptional Students	3
EDU	200	Classroom Management	3
EDU	210	Assessing Student Learning	3
EDU	220	Field Experience	1
EDU	235	Foundations of Writing	3
EDU	245	Foundations In Early Literacy	3
ART	100	Art Appreciation	3
BIO	110	Principles of Biology	5
ENG	101	Composition I	3
ENG	120	Composition II	3
HIS	110	United States History to 1877	3
MTH	112	College Algebra	3
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
POL	101	American Government	3
SOC	101	Principles of Sociology	3
SPH	101	Public Speaking	3
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,793.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from graduates, compiled by the Kansas Board of Regents.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Electrical Technology, AAS

CRN		COURSE NAME	CREDITS
ELE	120	AC/DC Circuits	4
ELE	110	Print Reading	2
ELE	180	Residential Wiring I	4
ELE	182	Residential Wiring Lab	4
ELE	150	National Electrical Code I	4
ELE	160	National Electrical Code II	4
ELE	130	Commercial Wiring I	4
ELE	132	Commercial Wiring Lab	4
ELE	140	Motor Controls	2
ELE	135	Low Voltage Wiring	2
ELE	170	Programmable Logic Controllers	2
ELE	190	Fire Alarm, Emergency, and Health Care Systems	3
ELE	185	Solar and Wind Power Generation	3
SAF	135	Safety/OSHA 30	3
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,961.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Electrical Technology, TC

CRN		COURSE NAME	CREDITS
ELE	120	AC/DC Circuits	4
ELE	110	Print Reading	2
ELE	180	Residential Wiring I	4
ELE	182	Residential Wiring Lab	4
ELE	150	National Electrical Code I	4
ELE	160	National Electrical Code II	4
ELE	130	Commercial Wiring I	4
ELE	132	Commercial Wiring Lab	4
ELE	140	Motor Controls	2
ELE	135	Low Voltage Wiring	2
SAF	135	Safety/OSHA 30	3
Total			**37.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,785.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Emergency Medical Services, TC

CRN		COURSE NAME	CREDITS
EMS	115	Tactical Medicine	3
EMS		**Technical Electives - 12 Credits**	**12**
CPR	001	CPR for Healthcare Providers	1
EMS	120	Work Ethic	2
Technical Electives			
EMS	103	EMT 1	
EMS	104	EMT 2	
EMS	105	Emergency Medical Technician	
Total			**18.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,378.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Emergency Medical Technician, COC

CRN	COURSE NAME	CREDITS
EMS	**Technical Electives - 12 Credits**	**12**
Technical Electives		
EMS 103	EMT 1	
EMS 104	EMT 2	
EMS 105	Emergency Medical Technician	
Total		**12.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$3,738.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Engineering Design Technology, AAS

CRN		COURSE NAME	CREDITS
CAT	101	CATIA Part Design & Sketcher	4
CAT	103	CATIA 3D Tolerancing & Annotations	4
CAT	105	CATIA Assembly Design	4
CAT	110	CATIA Wireframe & Surfaces	4
MCD	101	Introduction to CAD I	3
MCD	102	Introduction to CAD II	2
MCD	104	Blueprint Reading for Drafting	2
MCD	106	Precision Measuring	2
MCD	115	Machine Drafting & Design	3
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
MCD	137	Introduction to 3D Printing	2
MCD		**Technical Electives - 3 Credits**	**3**
ENG	101	Composition I	3
PDV	115	Work Ethics	2
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Science Elective	**5**
		Social Science Elective	**3**

Technical Electives

CAT	102	CATIA Drafting
CAT	115	CATIA Prismatic Machining
CAT	124	CATIA Surface Machining
MCD	130	Basic Solidworks
MCD	133	Advanced Solidworks
MCD	140	Drafting Technology Internship
MCD	156	Intermediate Measuring Instruments
MCD	201	Geometric Dimensioning & Tolerance
MCD	210	Advanced Measuring

Total **62.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 North Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$15,683.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Engineering Design Technology, TC

CRN		COURSE NAME	CREDITS
CAT	101	CATIA Part Design & Sketcher	4
CAT	103	CATIA 3D Tolerancing & Annotations	4
CAT	105	CATIA Assembly Design	4
CAT	110	CATIA Wireframe & Surfaces	4
MCD	101	Introduction to CAD I	3
MCD	102	Introduction to CAD II	2
MCD	104	Blueprint Reading for Drafting	2
MCD	106	Precision Measuring	2
MCD	115	Machine Drafting & Design	3
MCD	121	Descriptive Geometry	3
MCD	124	Advanced AutoCAD	4
MCD	137	Introduction to 3D Printing	2
PDV	115	Work Ethics	2
		Math Elective	**3**
		Communication Elective	**3**
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 North Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,791.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Food Business Management, AAS

CRN		COURSE NAME	CREDITS
HEM	105	Sanitation and Safety	1
HEM	110	Hospitality Math	3
HEM	115	Introduction to the Hospitality Industry	3
HEM	140	Hospitality Financial Management	3
HEM	143	Introduction to Food Business Management	5
HEM	233	Restaurant Incubator	3
HEM	235	Hospitality Management Internship	3
BUS	104	Introduction to Business	3
BUS	140	Principles of Marketing	3
CUL	105	Culinary Fundamentals	3
CUL	115	Culinary Nutrition	3
CUL	120	Modern Banquet Cookery	3
CUL	125	Baking & Pastry Skill Development	3
CUL	133	Bistro Practicum I	3
ENT	110	Introduction to Entrepreneurship	3
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU Tech NICHE
124 S. Broadway | Wichita, KS 67202
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,913.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Food Business Management, TC

CRN		COURSE NAME	CREDITS
HEM	105	Sanitation and Safety	1
HEM	110	Hospitality Math	3
HEM	115	Introduction to the Hospitality Industry	3
HEM	140	Hospitality Financial Management	3
HEM	143	Introduction to Food Business Management	5
HEM	233	Restaurant Incubator	3
HEM	235	Hospitality Management Internship	3
BUS	104	Introduction to Business	3
BUS	140	Principles of Marketing	3
CUL	105	Culinary Fundamentals	3
CUL	115	Culinary Nutrition	3
CUL	120	Modern Banquet Cookery	3
CUL	125	Baking & Pastry Skill Development	3
CUL	133	Bistro Practicum I	3
ENT	110	Introduction to Entrepreneurship	3
Total			**45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU Tech NICHE
124 S. Broadway | Wichita, KS 67202
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,817.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Healthcare Administration and Management, AAS

CRN		COURSE NAME	CREDITS
PNR	119	KSPN Fundamentals of Pharmacology and Safe Medication Administration	2
PNR	120	KSPN Foundations of Nursing	4
PNR	121	KSPN Foundations of Nursing Clinical	2
PNR	128	KSPN Nursing Care of Adults I	5
PNR	129	KSPN Nursing Care of Adults I Clinical	3
PNR	130	KSPN Maternal Child Nursing	2
PNR	131	KSPN Maternal Child Nursing Clinical	1
PNR	135	KSPN Mental Health Nursing	2
PNR	138	KSPN Nursing Care of Adults II	5
PNR	139	KSPN Nursing Care of Adults II Clinical	2
PNR	141	KSPN Care of Aging Adults	2
PNR	166	KSPN Leadership, Roles, and Issues	2
PNR	170	Healthcare Practice Management	3
PNR	180	Healthcare Issues	3
		Technical Electives - 4 Credits	**4**
BIO 110 Or CHM 110			
		General Biology or General Chemistry	5
BIO	150	Human Anatomy & Physiology	5
ENG	101	Composition I	3
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
		Communication Elective	**3**
		Math Elective	**3**

Technical Electives

BIO	160	Microbiology
CNA	101	Certified Nurse Aide
PNR	175	Healthcare Management Research

Total **67.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$18,165.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Home Health Aide, COC

CRN		COURSE NAME	CREDITS
HHA	100	Home Health Aide	2
Total			**2.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$382.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Industrial Machine Maintenance Technology (Cert A), TC

CRN		COURSE NAME	CREDITS
IND	115	Industrial Safety	1
IND	150	Manufacturing Equipment and Tools	2
IND	122	AC/DC Circuits	4
IND	109	Programmable Logic Controls	3
IND	130	Mechanical Systems	3
IND	121	Mechanical Systems Reliability	3
IND	147	Fluid Power I	3
		Technical Electives - 3 Credits	**3**
AVC	110	Safety/OSHA 10	1
		Math Elective	**3**
PDV	115	Work Ethics	2

Technical Electives

IND	160	Fluid Power II
IND	165	Industrial Process Control II
IND	139	CNC Operation for Maintenance Applications
IND	175	Advanced CNC Maintenance Applications
IND	170	CNC Installation
IND	111	Foundations of Manufacturing
ROB	100	Introduction to Robotics

Total **28.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$6,720.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Industrial Machine Maintenance Technology (Cert B), TC

CRN		COURSE NAME	CREDITS
IND	115	Industrial Safety	1
IND	111	Foundations of Manufacturing	2
IND	150	Manufacturing Equipment and Tools	2
IND	122	AC/DC Circuits	4
IND	117	Variable Speed Motor Control	3
IND	137	Industrial Schematics	2
IND	109	Programmable Logic Controls	3
IND	143	Electrical System Troubleshooting	3
IND	116	Advanced Motor Controls	3
IND	131	Industrial Programmable Logic Controls (PLC)	3
IND	147	Fluid Power I	3
IND	130	Mechanical Systems	3
IND	121	Mechanical Systems Reliability	3
		Technical Electives - 3 Credits	**3**
AVC	110	Safety/OSHA 10	1
		Math Elective	**3**
PDV	115	Work Ethics	2

Technical Electives

IND	160	Fluid Power II
IND	165	Industrial Process Control II
IND	139	CNC Operation for Maintenance Applications
IND	175	Advanced CNC Maintenance Applications
IND	170	CNC Installation
ROB	100	Introduction to Robotics

Total **44.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$10,880.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Industrial Machine Maintenance Technology (Cert C), TC

CRN		COURSE NAME	CREDITS
IND	115	Industrial Safety	1
IND	111	Foundations of Manufacturing	2
IND	150	Manufacturing Equipment and Tools	2
IND	122	AC/DC Circuits	4
IND	117	Variable Speed Motor Control	3
IND	137	Industrial Schematics	2
IND	109	Programmable Logic Controls	3
IND	143	Electrical System Troubleshooting	3
IND	116	Advanced Motor Controls	3
IND	131	Industrial Programmable Logic Controls (PLC)	3
IND	147	Fluid Power I	3
IND	130	Mechanical Systems	3
IND	121	Mechanical Systems Reliability	3
IND	152	Predictive Maintenance	2
IND	157	Preventative Maintenance	2
IND	132	Industrial Process Control	3
		Technical Electives - 3 Credits	**3**
AVC	110	Safety/OSHA 10	1
		Math Elective	**3**
PDV	115	Work Ethics	2

Technical Electives

IND	160	Fluid Power II
IND	165	Industrial Process Control II
IND	139	CNC Operation for Maintenance Applications
IND	175	Advanced CNC Maintenance Applications
IND	170	CNC Installation
ROB	100	Introduction to Robotics

Total **51.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,700.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Industrial Machine Maintenance Technology, AAS

CRN		COURSE NAME	CREDITS
IND	115	Industrial Safety	1
IND	111	Foundations of Manufacturing	2
IND	150	Manufacturing Equipment and Tools	2
IND	122	AC/DC Circuits	4
IND	117	Variable Speed Motor Control	3
IND	137	Industrial Schematics	2
IND	109	Programmable Logic Controls	3
IND	143	Electrical System Troubleshooting	3
IND	116	Advanced Motor Controls	3
IND	131	Industrial Programmable Logic Controls (PLC)	3
IND	147	Fluid Power I	3
IND	130	Mechanical Systems	3
IND	121	Mechanical Systems Reliability	3
IND	152	Predictive Maintenance	2
IND	157	Preventative Maintenance	2
IND	132	Industrial Process Control	3
		Technical Electives - 3 Credits	**3**
AVC	110	Safety/OSHA 10	1
		Math Elective	**3**
ENG	101	Composition I	3
PDV	115	Work Ethics	2
SPH	111	Interpersonal Communication	3
		Humanities Elective	**3**
		Social Science Elective	**3**

Technical Electives

IND	160	Fluid Power II
IND	165	Industrial Process Control II
IND	139	CNC Operation for Maintenance Applications
IND	175	Advanced CNC Maintenance Applications
IND	170	CNC Installation
ROB	100	Introduction to Robotics

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,462.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Interior Design, AAS

CRN		COURSE NAME	CREDITS
INT	101	Interior Design Fundamentals	3
INT	105	Blueprint Reading for Interior Design	3
INT	110	Color Theory	3
INT	126	Textiles	3
INT	127	Materials for Interior Environments	3
INT	141	History of Furniture & Architecture	5
INT	155	Lighting Technologies	3
INT	160	Design Studio I	3
INT	165	Design Studio II	3
INT	166	AutoCAD for Interior Design	5
INT	168	Basic Chief Architect for Interior Design	3
INT	170	Business Practices & Portfolio Development	4
INT	173	Design Studio III	3
INT	190	Drafting for Interiors	3
INT	192	Perspective Drawing for Interior Design	3
INT	193	Rendering for Interior Design	3
INT	196	Interior Design Codes & Standards	3
INT	218	Kitchen & Bath Design	3
ART	100	Art Appreciation	3
CED	115	Computer Applications	3
ENG	101	Composition I	3
SPH	101	Public Speaking	3
		Math Elective	**3**
Total			**74.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,355.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Logistics and Supply Chain Management, AAS

CRN		COURSE NAME	CREDITS
LGM	101	Principles of Logistics and Supply Chain Management	3
LGM	102	Inventory Control	3
LGM	103	Contracts and Freight Claims	3
LGM	105	Warehouse Management	3
LGM	106	Transportation and Traffic Management	3
LGM	107	Introduction to Purchasing	3
LGM	108	International Logistics	3
LGM	150	Supply Chain Analytics	3
LGM		**Experiential Learning Elective - 3 Credits**	**3**
BUS	104	Introduction to Business	3
OPM	115	Introduction to Project Management	3
		Electives - 9 Credits	**9**
ENG	101	Composition I	3
PHL	110	Ethics	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**

Experiential Learning Electives

LGM	190	Logistics and Supply Chain Internship
LGM	196	Capstone In Logistics & Supply Chain Management

Electives

ACC	105	Fundamentals of Accounting
CED	117	Advanced Excel
ECO	105	Principles of Macroeconomics
ECO	110	Principles of Microeconomics
OPM	105	Operational Management for Organizational Success
PHR	105	Negotiations and Relationship Management LEN 100 or MFG 100 Or OPM 100

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$11,557.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Logistics and Supply Chain Management, TC

CRN		COURSE NAME	CREDITS
LGM	101	Principles of Logistics and Supply Chain Management	3
LGM	102	Inventory Control	3
LGM	105	Warehouse Management	3
LGM	106	Transportation and Traffic Management	3
LGM	108	International Logistics	3
LGM	150	Supply Chain Analytics	3
LGM		**Experiential Learning Electives - 3 Credits**	**3**
BUS	104	Introduction to Business	3
ENG	101	Composition I	3
MTH	108	Contemporary Math	3
Experiential Learning Electives			
LGM	190	Logistics and Supply Chain Internship	
LGM	196	Capstone In Logistics & Supply Chain Management	
Total			**30.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$6,403.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Machining Technology (Machining & Manufacturing Technology), AAS

CRN		COURSE NAME	CREDITS
MMG	113	Print Reading	3
MMG	116	Quality Control & Inspection	1
MMG	130	Bench Work	1
MMG	131	Metallurgy	1
MMG	132	Machine Tool Processes	1
MMG	135	Machining Fundamentals	3
MMG	140	Metrology	4
MMG	154	Multi-Cell Operations	4
MMG	155	CNC Lathe	3
MMG	156	CNC Operations	3
MMG	160	CNC Milling I	3
MMG	164	Advanced Machining Processes	3
MMG	170	Mastercam Mill 2 Axis	4
MMG	173	G D & T for Machining	3
MMG	180	Mastercam 4 & 5 Axis Mill	4
MMG	184	Multi-Axis Milling	4
AVC	110	Safety/OSHA 10	1
ENG	101	Composition I	3
MCD	106	Precision Measuring	2
PDV	115	Work Ethics	2
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**65.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$15,174.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Machining Technology (Machining & Manufacturing Technology), TC

CRN		COURSE NAME	CREDITS
MMG	113	Print Reading	3
MMG	116	Quality Control & Inspection	1
MMG	130	Bench Work	1
MMG	131	Metallurgy	1
MMG	135	Machining Fundamentals	3
MMG	140	Metrology	4
MMG	155	CNC Lathe	3
MMG	156	CNC Operations	3
MMG	160	CNC Milling I	3
MMG	170	Mastercam Mill 2 Axis	4
MMG	184	Multi-Axis Milling	4
AVC	110	Safety/OSHA 10	1
MCD	106	Precision Measuring	2
PDV	115	Work Ethics	2
Total			**35.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,107.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Magnetic Particle Technician, COC

CRN		COURSE NAME	CREDITS
NDT	106	Formulations and Calculations	2
NDT	101	Magnetic Particle Testing	3
NDT	114	Visual Inspection	2
Total			**7.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$2,100.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Manufacturing Assembly Basics, TC

CRN		COURSE NAME	CREDITS
MNF	110	CNC Basics	2
MNF	115	Forklift Operations	1
MNF	113	Blueprint Basics For Manufacturing	2
MNF	120	Manufacturing Processes & Production I	3
MNF	125	Maintenance Training	4
MNF	130	Manufacturing Processes & Production II	3
MNF	163	Production Assembly	3
AVC	104	Quality Control Concepts	1
AVC	110	Safety/OSHA 10	1
AVC	135	Hand Tools	1
AVC	145	Power Island	1
MCD	106	Precision Measuring	2
MCD	137	Introduction to 3D Printing	2
MMG	131	Metallurgy	1
PDV	115	Work Ethics	2
Total			**29.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,355.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Manufacturing Assembly, TC

CRN		COURSE NAME	CREDITS
MNF	110	CNC Basics	2
MNF	115	Forklift Operations	1
MNF	113	Blueprint Basics For Manufacturing	2
MNF	120	Manufacturing Processes & Production I	3
MNF	125	Maintenance Training	4
MNF	130	Manufacturing Processes & Production II	3
MNF	163	Production Assembly	3
AVC	104	Quality Control Concepts	1
AVC	110	Safety/OSHA 10	1
AVC	135	Hand Tools	1
AVC	145	Power Island	1
MCD	106	Precision Measuring	2
MCD	137	Introduction to 3D Printing	2
MMG	131	Metallurgy	1
PDV	115	Work Ethics	2
		Technical Electives - 8 Credits	**8**

Technical Electives

AER	150	Assembly Overview I	
AER	157	Advanced Assembly	
AVC	105	Aircraft Familiarization	
CFT	101	Introduction to Composites	
CFT	107	Composite Assembly	
CFT	130	Composite Fabrication Methods/Applications	
IND	109	Programmable Logic Controls	
IND	122	AC/DC Circuits	
IND	130	Mechanical Systems	
IND	143	Electrical System Troubleshooting	
IND	147	Fluid Power I	
MNF	157	Lean/Six Sigma	
MNF	175	Manufacturing Technology Applied Learning Experience	
ROB	100	Introduction to Robotics	

Total **37.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,612.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Manufacturing Technology, AAS

CRN		COURSE NAME	CREDITS
MNF	110	CNC Basics	2
MNF	115	Forklift Operations	1
MNF	113	Blueprint Basics For Manufacturing	2
MNF	120	Manufacturing Processes & Production I	3
MNF	125	Maintenance Training	4
MNF	130	Manufacturing Processes & Production II	3
MNF	163	Production Assembly	3
AVC	104	Quality Control Concepts	1
AVC	110	Safety/OSHA 10	1
AVC	135	Hand Tools	1
AVC	145	Power Island	1
MCD	106	Precision Measuring	2
MCD	137	Introduction to 3D Printing	2
MMG	131	Metallurgy	1
PDV	115	Work Ethics	2
		Technical Electives - 16 Credits	**16**
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**

Manufacturing Technology Electives

AER	150	Assembly Overview I
AER	157	Advanced Assembly
AVC	105	Aircraft Familiarization
CFT	101	Introduction to Composites
CFT	107	Composite Assembly
CFT	130	Composite Fabrication Methods /Applications
IND	109	Programmable Logic Controls
IND	122	AC/DC Circuits
IND	130	Mechanical Systems
IND	143	Electrical System Troubleshooting
IND	147	Fluid Power I
MMG	113	Print Reading
MMG	116	Quality Control & Inspection
MMG	135	Machining Fundamentals
MMG	155	CNC Lathe
MMG	160	CNC Milling I
MMG	156	CNC Operations
MNF	157	Lean/Six Sigma
MNF	175	Manufacturing Technology Applied Learning Experience
ROB	100	Introduction to Robotics

Total **60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,934.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Manufacturing Technology, TC

CRN		COURSE NAME	CREDITS
MNF	110	CNC Basics	2
MNF	115	Forklift Operations	1
MNF	113	Blueprint Basics For Manufacturing	2
MNF	120	Manufacturing Processes & Production I	3
MNF	125	Maintenance Training	4
MNF	130	Manufacturing Processes & Production II	3
MNF	163	Production Assembly	3
AVC	104	Quality Control Concepts	1
AVC	110	Safety/OSHA 10	1
AVC	135	Hand Tools	1
AVC	145	Power Island	1
MCD	106	Precision Measuring	2
MCD	137	Introduction to 3D Printing	2
MMG	131	Metallurgy	1
PDV	115	Work Ethics	2
		Technical Electives - 16 Credits	**16**

Technical Electives

AER	150	Assembly Overview I	
AER	157	Advanced Assembly	
AVC	105	Aircraft Familiarization	
CFT	101	Introduction to Composites	
CFT	107	Composite Assembly	
CFT	130	Composite Fabrication Methods /Applications	
IND	109	Programmable Logic Controls	
IND	122	AC/DC Circuits	
IND	130	Mechanical Systems	
IND	143	Electrical System Troubleshooting	
IND	147	Fluid Power I	
MMG	113	Print Reading	
MMG	116	Quality Control & Inspection	
MMG	135	Machining Fundamentals	
MMG	155	CNC Lathe	
MMG	160	CNC Milling I	
MMG	156	CNC Operations	
MNF	157	Lean/Six Sigma	
MNF	175	Manufacturing Technology Applied Learning Experience	
ROB	100	Introduction to Robotics	

Total **45.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$11,838.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Mental Health Technician, AAS

CRN		COURSE NAME	CREDITS
MNT	120	Understanding Mental Illness	2
MNT	140	Technical Health Skills I	5
MNT	170	Pharmacology & Drug Administration	8
MNT	200	Psychiatric Interventions	8
MNT	130	Behavioral Science	3
MNT	180	Technical Health Skills II	5
MNT	190	Therapeutic Communication	2
ALH	110	Principles of Nutrition	3
ENG	101	Composition I	3
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
SOC	101	Principles of Sociology	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**6**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,859.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORPlacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Mental Health Technician, TC

CRN		COURSE NAME	CREDITS
MNT	120	Understanding Mental Illness	2
MNT	140	Technical Health Skills I	5
MNT	170	Pharmacology & Drug Administration	8
MNT	200	Psychiatric Interventions	8
MNT	130	Behavioral Science	3
MNT	180	Technical Health Skills II	5
MNT	190	Therapeutic Communication	2
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
Total			**39.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$10,811.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORPlacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Mobile Equipment Technology - ThinkBIG, AAS

CRN		COURSE NAME	CREDITS
EQP	121	Diesel Engine Repair	4
EQP	132	Fuel & Exhaust Systems	3
EQP	180	Fluid Power	4
EQP	210	Dealership Fundamentals	2
EQP	225	Control Panels and Data Links	5
EQP	230	Automatic Transfer Switches	5
EQP	235	Voltage Regulation	5
EQP	240	Generators & EPG Calculations	5
TAS	105	Orientation to the Transportation Industry	1
TAS	124	Electrical I	3
TAS	125	Electrical II	3
TAS	131	Engine Performance I	3
TAS	160	Transportation Industry Safety	1
TAS	225	Electrical III	2
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,056.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

2025-2026

WSUTECH.edu

Mobile Equipment Technology, AAS

CRN		COURSE NAME	CREDITS
EQP	121	Diesel Engine Repair	4
EQP	132	Fuel & Exhaust Systems	3
EQP	134	Machine Specific Systems	1
EQP	135	Mobile Equipment Diagnostics Test	3
EQP	180	Fluid Power	4
EQP	206	Powertrain Systems	4
EQP	210	Dealership Fundamentals	2
EQP	220	Advanced Fluid Power	2
TAS	105	Orientation to the Transportation Industry	1
TAS	124	Electrical I	3
TAS	125	Electrical II	3
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	133	Brakes I	3
TAS	136	Suspension and Steering I	3
TAS	160	Transportation Industry Safety	1
TAS	225	Electrical III	2
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,056.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Mobile Equipment Technology, TC

CRN		COURSE NAME	CREDITS
EQP	121	Diesel Engine Repair	4
EQP	132	Fuel & Exhaust Systems	3
EQP	134	Machine Specific Systems	1
EQP	135	Mobile Equipment Diagnostics Test	3
EQP	180	Fluid Power	4
EQP	206	Powertrain Systems	4
EQP	210	Dealership Fundamentals	2
EQP	220	Advanced Fluid Power	2
TAS	105	Orientation to the Transportation Industry	1
TAS	124	Electrical I	3
TAS	125	Electrical II	3
TAS	128	Heating & Air Conditioning	4
TAS	131	Engine Performance I	3
TAS	133	Brakes I	3
TAS	136	Suspension and Steering I	3
TAS	160	Transportation Industry Safety	1
TAS	225	Electrical III	2
		Math Elective	**3**
Total			**49.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,365.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Multi Axis Machining (Machining & Manufacturing Technology), TC

CRN		COURSE NAME	CREDITS
MMG	113	Print Reading	3
MMG	116	Quality Control & Inspection	1
MMG	130	Bench Work	1
MMG	131	Metallurgy	1
MMG	132	Machine Tool Processes	1
MMG	135	Machining Fundamentals	3
MMG	140	Metrology	4
MMG	154	Multi-Cell Operations	4
MMG	155	CNC Lathe	3
MMG	156	CNC Operations	3
MMG	160	CNC Milling I	3
MMG	164	Advanced Machining Processes	3
MMG	170	Mastercam Mill 2 Axis	4
MMG	173	G D & T for Machining	3
MMG	180	Mastercam 4 & 5 Axis Mill	4
MMG	184	Multi-Axis Milling	4
AVC	110	Safety/OSHA 10	1
MCD	106	Precision Measuring	2
PDV	115	Work Ethics	2
		Math Elective	**3**
Total			**53.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,483.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

Non Destructive Testing, AAS

CRN		COURSE NAME	CREDITS
NDT	100	Penetrant Inspection	3
NDT	101	Magnetic Particle Testing	3
NDT	102	Radiation Safety	3
NDT	103	Radiographic Testing Level II	3
NDT	106	Formulations and Calculations	2
NDT	107	Radiographic Testing Level I	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	2
NDT	123	Advanced Ultrasonic Testing Methods	5
AVC	102	Precision Instruments	1
AVC	110	Safety/OSHA 10	1
CFT	101	Introduction to Composites	2
ENG	101	Composition I	3
PHS	110	Physical Science	5
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,987.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Non Destructive Testing, TC

CRN		COURSE NAME	CREDITS
NDT	100	Penetrant Inspection	3
NDT	101	Magnetic Particle Testing	3
NDT	102	Radiation Safety	3
NDT	103	Radiographic Testing Level II	3
NDT	106	Formulations and Calculations	2
NDT	107	Radiographic Testing Level I	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	2
NDT	123	Advanced Ultrasonic Testing Methods	5
AVC	102	Precision Instruments	1
AVC	110	Safety/OSHA 10	1
CFT	101	Introduction to Composites	2
		Humanities Elective	**3**
Total			**43.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,550.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

Operations Management and Supervision, AAS

CRN		COURSE NAME	CREDITS
ACC	105	Fundamentals of 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
ENG	101	Composition I	3
ECO	105	Principles of Macroeconomics	3
ECO	110	Principles of Microeconomics	3
HIS	120	United States History since 1865	3
LEN	100	Lean for Operations	3
LGM	101	Principles of Logistics and Supply Chain Management	3
MTH	112	College Algebra	3
OPM	105	Operations Management for Organizational Success	3
OPM	115	Introduction to Project Management	3
PSY	101	General Psychology	3
SPH	101	Public Speaking	3
		Humanities Elective	**3**
		Science Elective	**5**
Total			**62.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$9,643.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Operations Management and Supervision, TC

CRN		COURSE NAME	CREDITS
ACC	105	Fundamentals of 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
LGM	101	Principles of Logistics and Supply Chain Management	3
OPM	105	Operations Management for Organizational Success	3
OPM	115	Introduction to Project Management	3
SPH	101	Public Speaking	3
		Humanities Elective	**3**
Total			**33.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,302.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Patient Care Technician, TC

CRN		COURSE NAME	CREDITS
PCT	100	EKG for Healthcare Providers	4
PCT	110	Phlebotomy and Laboratory Procedures	4
PCT	130	Patient Care Concepts and Technical Skills	3
ALH	101	Medical Terminology	3
CPR	001	CPR for Healthcare Providers	1
CNA	101	Certified Nurse Aide	5
Total			**20.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$4,398.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Penetrant Technician, COC

CRN		COURSE NAME	CREDITS
NDT	114	Visual Inspection	2
NDT	100	Penetrant Inspection	3
Total			**5.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$1,500.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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KSDegreeStats.org

Practical Nursing, TC

CRN		COURSE NAME	CREDITS
PNR	119	KSPN Fundamentals of Pharmacology and Safe Medication Administration	2
PNR	120	KSPN Foundations of Nursing	4
PNR	121	KSPN Foundations of Nursing Clinical	2
PNR	128	KSPN Nursing Care of Adults I	5
PNR	129	KSPN Nursing Care of Adults I Clinical	3
PNR	130	KSPN Maternal Child Nursing	2
PNR	131	KSPN Maternal Child Nursing Clinical	1
PNR	135	KSPN Mental Health Nursing	2
PNR	138	KSPN Nursing Care of Adults II	5
PNR	139	KSPN Nursing Care of Adults II Clinical	2
PNR	141	KSPN Care of Aging Adults	2
PNR	166	KSPN Leadership, Roles, and Issues	2
BIO 110 Or CHM 110		General Biology Or General Chemistry	5
BIO	150	Human Anatomy & Physiology	5
PSY	101	General Psychology	3
PSY	120	Developmental Psychology	3
Total			**48.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,559.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Process Mechanic Painter, TC

CRN		COURSE NAME	CREDITS
ACP	100	Introduction to Coatings & Paint Technology	3
ACP	101	Surface Preparation & Coatings	4
ACP	104	Specialized Coatings Processes	3
ACP	145	Environmental Health and Safety	2
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
AVC	105	Aircraft Familiarization	1
Total			**16.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,185.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORPlacement

Get historical data on job placement rates and average wages from WSU Tech graduates.

KSDegreeStats.org

Professional Pilot, AAS

CRN		COURSE NAME	CREDITS
PLT	104	Introduction to Aviation	3
PLT	112	Private Pilot Flight Lab	3
PLT	116	Aviation Weather	3
PLT	120	Instrument Regulations and Procedures	3
PLT	126	Aviation Standardization and Career Paths	2
PLT	128	Instrumental Flight Lab	3
PLT	130	Aerodynamics and Aircraft Performance	2
PLT	132	Aviation Safety and Human Factors	3
PLT	134	Aircraft Systems for Pilots	2
PLT	136	Crew Resource Management	2
PLT	144	Introduction to Commercial Flight	3
PLT	146	Air Traffic Control and Airspace	2
PLT	152	Commercial Flight Lab	3
PLT	154	Aviation Law and Regulations	2
PLT	156	Multiengine Aircraft Operation	1
PLT	160	Multiengine Flight Lab	2
PLT	168	Certified Flight Instruction	4
PLT	176	Certified Flight Instruction Lab	2
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**
Total			**60.00**

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LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

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

AAS Flight Hours and Estimated Costs

License/ Rating	Minimum Flight Hours	Estimated Student Flight Fees*
Semester one Private Pilot	45	$16,373
Semester two Instrument Pilot	40	$12,446
Semester three Commercial Pilot	120	$31,201
Semester four Multiengine	20	$10,112
Semester four Certified Flight Instructor	25	$9,613

Tuition and Fees	**$17,325.00**
Flight Hours	**$79,745.00**
Program Total	**$97,070.00**

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Quality Assurance Inspection, AAS

CRN		COURSE NAME	CREDITS
QAI	135	Quality Assurance Orientation	1
QAI	145	Quality Management	3
QAI	155	Quality Documentation and Traceability	3
QAI	165	Materials Testing and Analysis	3
QAI	175	Quality Assurance Inspection Internship I	3
QAI	185	Statistical Process Control	1
QAI	195	Root Cause Analysis	1
QAI	201	Geometric Dimensioning & Tolerance	3
QAI	215	Human Factors in Manufacturing	3
QAI	225	Quality Assurance Inspection Internship II	4
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
CAT	101	CATIA Part Design & Sketcher	4
MCD	106	Precision Measuring	2
MCD	210	Advanced Measuring	3
		Technical Electives - 4 Credits	**4**
ENG	101	Composition I	3
CED	115	Computer Applications	3
PDV	115	Work Ethics	2
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Technical Electives

TFF	120	Metrology
MMG	140	Metrology

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$15,350.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Quality Assurance Inspection, TC

CRN		COURSE NAME	CREDITS
QAI	135	Quality Assurance Orientation	1
QAI	145	Quality Management	3
QAI	155	Quality Documentation and Traceability	3
QAI	201	Geometric Dimensioning & Tolerance	3
AVC	110	Safety/OSHA 10	1
AVC	112	Blueprint Reading	2
MCD	106	Precision Measuring	2
MCD	210	Advanced Measuring	3
		Technical Electives - 4 Credits	**4**
PDV	115	Work Ethics	2
Technical Electives			
TFF	120	Metrology	
MMG	140	Metrology	
Total			**26.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,287.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Radiography Technician, COC

CRN		COURSE NAME	CREDITS
NDT	106	Formulations and Calculations	2
NDT	102	Radiation Safety	3
NDT	103	Radiographic Testing Level II	3
NDT	107	Radiographic Testing Level I	3
Total			**11.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$3,300.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Robotics, AAS

CRN		COURSE NAME	CREDITS
ROB	100	Introduction to Robotics	3
ROB	103	Applied Robotics Lab I	4
ROB	104	Robotics Simulation	2
ROB	106	Robotics Controller Maintenance	1
ROB	115	Introduction to Programming Robots in ROS	4
ROB	118	Basic Circuits	3
ROB	120	IoT Fundamentals: Introduction to the Internet of Things	3
ROB	124	Robotic Navigation	2
ROB	128	Basic PLC	3
ROB	130	IoT Fundamentals: Connected Things	3
ROB	134	Robotic Perception and Manipulation	4
ROB	138	Advanced PLC	3
ROB	140	IoT Fundamentals: Big Data Analytics	3
ROB	145	Applied Robotics Lab II	2
ROB		**Robotics Electives - 6 Credits**	**6**
ROB		**Experiential Learning Electives - 3 Credits**	**3**
ENG	101	Composition I	3
MTH	112	College Algebra	3
		Communication Elective	**3**
		Social Science Elective	**3**
		Humanities Elective	**3**

Experiential Learning Electives

ROB	170	Robotics Internship
ROB	172	Robotics Capstone

Robotics Electives

ROB	144	Machine Learning for Robotics
ROB	148	PLC System Design and Simulation
ROB	155	Advanced Industrial Workcell Programming
ROB	150	IoT Security

Total **64.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$17,017.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Robotics, TC

CRN		COURSE NAME	CREDITS
ROB	100	Introduction to Robotics	3
ROB	103	Applied Robotics Lab I	4
ROB	106	Robotics Controller Maintenance	1
ROB	104	Robotics Simulation	2
ROB	115	Introduction to Programming Robots in ROS	4
ROB	118	Basic Circuits	3
ROB	120	IoT Fundamentals: Introduction to the Internet of Things	3
ROB	124	Robotic Navigation	2
ROB	128	Basic PLC	3
ROB	130	IoT Fundamentals: Connected Things	3
ROB	134	Robotic Perception and Manipulation	4
ROB	138	Advanced PLC	3
ROB	140	IoT Fundamentals: Big Data Analytics	3
ROB	145	Applied Robotics Lab II	2
Total			**40.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,150.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Surgical Technology, AAS

CRN		COURSE NAME	CREDITS
SGT	101	Introduction to Surgical Technology	4
SGT	107	Pharmacology for Surgical Technology	3
SGT	115	Surgical Procedures I	5
SGT	119	Surgical Technology - Clinical Experience I	6
SGT	120	Principles and Practices in Surgical Technology	5
SGT	125	Surgical Procedures II	5
SGT	129	Surgical Technology - Clinical Experience II	7
SGT	140	Principles and Practices in Surgical Technology Lab	3
SGT	145	ST Certification Review	1
ALH	101	Medical Terminology	3
BIO	150	Human Anatomy & Physiology	5
BIO	160	Microbiology	5
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Electives - 3 Credits	**3**

Electives

PSY	101	General Psychology
SOC	101	Principles of Sociology

Total **65.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$14,803.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Technical Studies/Criminal Justice/Business Administration, AAS

CRN		COURSE NAME	CREDITS
CRJ	101	Introduction to Criminal Justice	3
CRJ	105	Criminal Investigation	3
CRJ	110	Criminal Law	3
CRJ	115	Agency Administration	3
CRJ	120	Juvenile Delinquency and Justice	3
CRJ	125	Law Enforcement Operations and Procedures	3
CRJ	130	Criminal Procedures	3
CRJ	135	Criminal Justice Interview and Report Writing	3
CRJ	140	Professional Responsibility in Criminal Justice	3
CRJ	145	Corrections	3
CRJ	155	Policing Diverse Cultures	3
CRJ	160	Internship in Criminal Justice	3
CPR	001	CPR for Healthcare Providers	1
BUS	104	Introduction to Business	3
BUS	121	Business Communications	3
BUS	125	Business Law	3
BUS	130	Personal Finance	3
BUS	200	Principles of Management	3
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**67.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$10,328.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Technical Studies/Criminal Justice/EMS, AAS

CRN		COURSE NAME	CREDITS
CRJ	101	Introduction to Criminal Justice	3
CRJ	105	Criminal Investigation	3
CRJ	110	Criminal Law	3
CRJ	115	Agency Administration	3
CRJ	120	Juvenile Delinquency and Justice	3
CRJ	125	Law Enforcement Operations and Procedures	3
CRJ	130	Criminal Procedures	3
CRJ	135	Criminal Justice Interview and Report Writing	3
CRJ	140	Professional Responsibility in Criminal Justice	3
CRJ	145	Corrections	3
CRJ	155	Policing Diverse Cultures	3
CRJ	160	Internship in Criminal Justice	3
CPR	001	CPR for Healthcare Providers	1
ENG	101	Composition I	3
EMS	105	Emergency Medical Technician	12
EMS	115	Tactical Medicine	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
Total			**67.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$12,723.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Tooling and Fixture Fabrication, AAS

CRN		COURSE NAME	CREDITS
TFF	108	Welding Safety & Orientation	1
TFF	110	Tap and Die	1
TFF	112	Print Reading	3
TFF	114	Introduction to CAD I	3
TFF	115	Hand and Power Tools for Aerospace Tooling	1
TFF	117	Precision Measuring	2
TFF	118	Welding Applications	4
TFF	120	Metrology	4
TFF	125	Tooling Capstone	4
TFF	130	Machining I	3
TFF	135	Direct & Alternating Current	4
TFF	140	Machining II	3
TFF		**Experiential Learning Electives - 5 Credits**	**5**
AER	106	Aerospace Manufacturing Tooling Orientation	1
AER	150	Assembly Overview I	3
AVC	103	Geometric Dimensioning & Tolerancing	1
AVC	104	Quality Control Concepts	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	110	Safety/OSHA 10	1
AVC	150	Human Factors	1
AVC	170	Conflict Resolution	1
CAT	101	CATIA Part Design & Sketcher	4
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Experiential Learning Electives

TFF	150	Fixture Construction
TFF	155	Tooling and Fixture Fabrication Capstone

Total **67.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$16,161.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Tooling and Fixture Fabrication, TC

CRN		COURSE NAME	CREDITS
TFF	108	Welding Safety & Orientation	1
TFF	110	Tap and Die	1
TFF	112	Print Reading	3
TFF	114	Introduction to CAD I	3
TFF	115	Hand and Power Tools for Aerospace Tooling	1
TFF	117	Precision Measuring	2
TFF	118	Welding Applications	4
TFF	120	Metrology	4
TFF	125	Tooling Capstone	4
TFF	130	Machining I	3
TFF	135	Direct & Alternating Current	4
TFF	140	Machining II	3
TFF		**Experiential Learning Electives - 5 Credits**	**5**
AER	106	Aerospace Manufacturing Tooling Orientation	1
AER	150	Assembly Overview I	3
AVC	103	Geometric Dimensioning & Tolerancing	1
AVC	104	Quality Control Concepts	1
AVC	107	Fundamentals for Aerospace Manufacturing	1
AVC	110	Safety/OSHA 10	1
AVC	150	Human Factors	1
AVC	170	Conflict Resolution	1
CAT	101	CATIA Part Design & Sketcher	4

Experiential Learning Electives

TFF	150	Fixture Construction
TFF	155	Tooling and Fixture Fabrication Capstone

Total **52.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,865.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Ultrasonic Technician, COC

CRN		COURSE NAME	CREDITS
NDT	106	Formulations and Calculations	2
NDT	112	Ultrasonic Testing Method Level I	3
NDT	113	Ultrasonic Testing Method Level II	3
NDT	123	Advanced Ultrasonic Testing Methods	5
Total			**13.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$3,900.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Unmanned Aircraft Systems (Cert A), TC

CRN		COURSE NAME	CREDITS
UAS	180	Ground School	4
UAS	185	Multi-Rotor Flight	4
UAS	190	Videography	4
UAS	220	UAS Multi-Rotor Maintenance	6
UAS	225	Post-Processing	3
UAS	235	UAS Small Business Fundamentals	3
Total			**24.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$7,375.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Unmanned Aircraft Systems, AAS

CRN		COURSE NAME	CREDITS
UAS	185	Multi-Rotor Flight	4
UAS	180	Ground School	4
UAS	190	Videography	4
UAS	220	UAS Multi-Rotor Maintenance	6
UAS	225	Post-Processing	3
UAS	235	UAS Small Business Fundamentals	3
UAS	240	Multi-Rotor Instructor	6
UAS	250	Advanced Post-Processing	6
UAS	255	Advanced Payloads	3
UAS	260	Fixed-Wing Construction	3
UAS	265	Fixed-Wing UAS Flight	3
UAS		**Experiential Learning Electives - 3 Credits**	**3**
ENG	101	Composition I	3
		Communication Elective	**3**
		Humanities Elective	**3**
		Social Science Elective	**3**
MTH	112	College Algebra	3

Experiential Learning Electives

UAS	275	UAS Internship
UAS	273	Capstone

Total **63.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$16,742.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Veterinary Nursing (Vet Tech), AAS

CRN		COURSE NAME	CREDITS
VET	101	Introduction to Veterinary Nursing	3
VET	110	Veterinary Anatomy and Physiology	4
VET	105	Veterinary Business Procedures/Office Management	2
VET	115	Veterinary Clinical Pathology I	3
VET	120	Veterinary Nursing Procedures I	3
VET	130	Veterinary Emergency, Critical Medicine and Hospital Procedures	2
VET	140	Veterinary Pharmacology	2
VET	200	Veterinary Professional Wellness	2
VET	215	Veterinary Clinical Pathology II	3
VET	220	Veterinary Nursing Procedures II	2
VET	230	Veterinary Diagnostic Imaging with Lab	3
VET	240	Veterinary Anesthesia and Surgical Assisting	3
VET	250	Veterinary Nursing: Large Animal Disease and Medical Care	2
VET	260	Veterinary Clinical Pathology III	3
VET	265	Veterinary Nursing Procedures: Avian, Exotic and Lab Animals Disease and Medical Care	2
VET	270	Veterinary Nursing Seminar	1
VET	275	Veterinary Clinical Practicum	6
BIO	110	Principles of Biology	5
CHM	110	General Chemistry	5
ENG	101	Composition I	3
		Math Elective	**3**
		Communication Elective	**3**
		Humanities Elective	**3**
Total			**68.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

WSU South
3821 E. Harry | Wichita, KS 67218
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$20,108.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Welding Technology, AAS

CRN		COURSE NAME	CREDITS
CWG	103	Blue Print Reading for Welders	3
CWG	105	Welding Safety & Orientation	1
CWG	115	SMAW	3
CWG	116	SMAW II	4
CWG	120	GMAW	3
CWG	121	GMAW II	4
CWG	125	GTAW	3
CWG	126	GTAW II	4
CWG	141	Oxy Acetylene Welding & Cutting	2
CWG	145	Fabrication & Design	2
CWG	149	Materials & Testing	2
		Technical Elective Credits - 12 (4 of the required credits must come from either CWG 24 or CWG 243)	**12**
AVC	110	Safety/OSHA 10	1
ENG	101	Composition I	3
PDV	115	Work Ethics	2
		Communication Elective	**3**
		Humanities Elective	**3**
		Math Elective	**3**
		Social Science Elective	**3**

Technical Electives

CWG	110	Welding Applications
CWG	130	Robotic Welding
CWG	155	Flux Cored Arc Welding
CWG	160	Welding Internship
CWG	242	SMAW D1.1 Qualification
CWG	243	GMAW D1.1 Qualification
MCD	101	Introduction to CAD I
MCD	102	Introduction to CAD II
CWG	135	Measurement and Specification

Total **61.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$17,601.00**

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

PLACEMENT & WAGE DATA

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KSDegreeStats.org

2025-2026

WSUTECH.edu

Welding Technology Level 1 (GMAW), TC

CRN		COURSE NAME	CREDITS
CWG	103	Blue Print Reading for Welders	3
CWG	105	Welding Safety & Orientation	1
CWG	120	GMAW	3
CWG	121	GMAW II	4
CWG	141	Oxy Acetylene Welding & Cutting	2
CWG	135	Measurement and Specification	1
AVC	110	Safety/OSHA 10	1
PDV	115	Work Ethics	2
Total			**17.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,805.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Welding Technology Level 1 (SMAW), TC

CRN		COURSE NAME	CREDITS
CWG	103	Blue Print Reading for Welders	3
CWG	105	Welding Safety & Orientation	1
CWG	115	SMAW	3
CWG	116	SMAW II	4
CWG	141	Oxy Acetylene Welding & Cutting	2
CWG	135	Measurement and Specification	1
AVC	110	Safety/OSHA 10	1
PDV	115	Work Ethics	2
Total			**17.00**

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LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,805.00**

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

PLACEMENT & WAGE DATA

WSUTECH.edu/KBORplacement

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Welding Technology Level 1, TC

CRN		COURSE NAME	CREDITS
CWG	103	Blue Print Reading for Welders	3
CWG	105	Welding Safety & Orientation	1
CWG	141	Oxy Acetylene Welding & Cutting	2
CWG	135	Measurement and Specification	1
CWG		**Technical Electives - 7 Credits**	**7**
AVC	110	Safety/OSHA 10	1
PDV	115	Work Ethics	2

Technical Electives

CWG	115	SMAW
CWG	116	SMAW II
CWG	120	GMAW
CWG	121	GMAW II

Total **17.00**

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LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$5,805.00**

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

PLACEMENT & WAGE DATA

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2025-2026

WSUTECH.edu

Welding Technology Level 2, TC

CRN		COURSE NAME	CREDITS
CWG	103	Blue Print Reading for Welders	3
CWG	105	Welding Safety & Orientation	1
CWG	115	SMAW	3
CWG	116	SMAW II	4
CWG	120	GMAW	3
CWG	121	GMAW II	4
CWG	125	GTAW	3
CWG	126	GTAW II	4
CWG	141	Oxy Acetylene Welding & Cutting	2
CWG	145	Fabrication & Design	2
CWG	149	Materials & Testing	2
CWG	135	Measurement and Specification	1
		Technical Electives - 4 Credits	**4**
AVC	110	Safety/OSHA 10	1
PDV	115	Work Ethics	2

Technical Electives

CWG	110	Welding Applications	
CWG	130	Robotic Welding	
CWG	155	Flux Cored Arc Welding	
CWG	160	Welding Internship	
CWG	242	SMAW D1.1 Qualification	
CWG	243	GMAW D1.1 Qualification	
MCD	101	Introduction to CAD I	
MCD	102	Introduction to CAD II	

Total **39.00**

*Some courses may have a prerequisite in addition to the classes listed above. Please contact an Academic Advisor for details. Visit WSUTECH.edu/Checklist for program admission requirements.

LOCATION

National Center for Aviation Training
4004 N. Webb Road | Wichita, KS 67226

City Center
301 S. Grove | Wichita, KS 67211
316.677.9400 Get maps at WSUTECH.edu/Campuses

COSTS*

PROGRAM TOTAL **$13,213.00**

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

PLACEMENT & WAGE DATA

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COURSE DESCRIPTIONS

AAD 110 Data Exploration and Interpretation

Description This course will enable the student to examine the role data analytics plays in helping to make better decisions based on data. The student will explore various models that can be utilized to help summarize, visualize, and interpret data in a variety of disciplines.

Total Credits 3

Total Hours 60

AAD 120 Data Visualization

Description This course provides students with an introduction to data literacy and quantitative skills. These skills are prerequisites for data-driven fields of study, professional success, and everyday life. In this course, data literacy is defined as “to understand, explore, and communicate with data”. This course provides students the opportunity to learn through hands on experience with data and will help students share information about people, places, things, events, and phenomena, and answer questions about the world around us.

Total Credits 3

Total Hours 60

AAD 130 Python Data Foundations

Description Python/R Data Foundations course is designed to introduce students to the exciting opportunities available at the intersection of data analysis, computing, and mathematics through hands-on activities. Data are everywhere, and this curriculum will help prepare students to live in a world of data. The curriculum focuses on practical applications of data analysis to give students concrete and applicable skills. This course engages students with a wider world of data that fall into the "Big Data" paradigm and are relevant to students' lives. Statistical inference is taught algorithmically, using modern randomization and simulation techniques. Students will learn to find and communicate meaning in data, and to think critically about arguments based on data.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AAD 120 Data Visualization

AAD 140 SQL Database Applications

Description Students will learn to use SQL to streamline their work. An overview of relational database management systems is then followed by setting up MySQL Workbench and design a database using examples. Query single and multiple tables, modify data using SQL querying. This course will also cover aggregate functions, flow controls statements, error handling, and subqueries. Best practices for writing SQL and designing indexes and tables will also be covered.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite AAD 130 Python Data Foundations

AAD 150 Data Engineering

Description In this course students will learn the skills necessary to integrate, transform and consolidate data from various structured and unstructured data systems into structures that are suitable for building analytics solutions. Topics will include data storage, data processing and data security.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AAD 140 SQL Database Applications

AAD 160 Data Modeling

Description In this course students will explore the process of simplifying the diagram or data model of a software system by applying certain formal techniques. It involves creating and expressing a conceptual representation of data objects and their relationships with one another.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AAD 140 SQL Database Applications

AAD 210 Power BI & Tableau

Description This course covers the content required for the Power BI Data Analyst Associate and Tableau Desktop Specialist certifications that validate the skills and knowledge required to enable businesses to maximize the value of their data assets by using Power BI and Tableau.

Total Credits 3

Total Hours 60

AAD 220 Predictive Analytics

Description Students will deepen their understanding of data analysis processes and methods, with a particular focus on descriptive analytics and predictive analytics methods. In the process, students will advance their proficiency with industry-leading analytics software, grow increasingly comfortable with analytics programming, and refine their presentation and reporting skills.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite CLD 138 Object-Oriented Programming (Python)

AAD 230 Advanced SQL Applications

Description This course will provide students with the algebraic skills necessary to begin understanding abstract mathematical concepts that involve arithmetic and algebraic manipulation, equations and inequalities, graphs, analysis of equations and graphs, and real-world applications.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AAD 140 SQL Database Applications

ACC 104 Computerized Accounting

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	ACC 105 Fundamentals of Accounting
Prerequisite	CED 115 Computer Applications

ACC 105 Fundamentals of Accounting

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

Total Credits 3

Total Hours 45

ACC 130 Managerial Accounting

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	ACC 170 Principles of Accounting II

ACC 137 QuickBooks

Description This course introduces students to the fundamental concepts and operations necessary to use QuickBooks. Emphasis is placed on basic functions and familiarity with the QuickBooks software. Topics include introduction to basic accounting concepts, introduction to QuickBooks concepts, working with customers and vendors, performing banking tasks, and creating and maintaining computer files.

Total Credits 3

Total Hours 60

ACC 152 Payroll Accounting

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ACC 105 Fundamentals of Accounting

ACC 160 Principles of Accounting I

Description 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 the occupational field.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ACC 105 Fundamentals of Accounting

ACC 170 Principles of Accounting II

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ACC 160 Principles of Accounting I

ACC 230 Tax Accounting

Description This course provides students with a comprehensive understanding of tax principles and practices, focusing on individual taxation. It will include an introduction to business taxation. Through a combination of theoretical concepts and practical applications, students will receive an overview knowledge of the complexities of the tax code. The course emphasizes critical thinking, problem-solving, and ethical considerations in the context of taxation.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ACC 170 Principles of Accounting II

ACP 100 Introduction to Coatings & Paint Technology

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AVC 110 OSHA/Safety

ACP 101 Surface Preparation & Coatings

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

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite	ACP 100 Introduction to Coatings & Paint Technology
Prerequisite	MTH 020 Math Fundamentals

ACP 102 Performance & Durability of Coatings

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	ACP 101 Surface Preparation & Coatings

ACP 103 Color Technology

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ACP 101 Surface Preparation & Coatings

ACP 104 Specialized Coatings Processes

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

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	ACP 101 Surface Preparation and Coatings

ACP 105 Specialized Detailing

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ACP 103 Color Technology

ACP 106 Aerospace Coatings & Materials

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	ACP 102 Performance and Durabiltiy of Coatings
Prerequisite	ACP 105 Specialized Detailing

ACP 110 Integrated Assembly Capstone Project

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

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite	ACP 100 Introduction to Coatings and Paint Technology
Prerequisite	ACP 101 Surface Preparation and Coatings
Prerequisite	ACP 102 Performance and Durability of Coatings
Prerequisite	ACP 103 Color Technology
Prerequisite	ACP 104 Specialized Coatings Processes
Prerequisite	ACP 105 Specialized Detailing
Prerequisite	ACP 106 Aerospace Coatings and Materials
Prerequisite	ACP 107 Aerospace Program Management

ACP 111 Technical Co-Operative Project

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

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite	ACP 107 Aerospace Program Management

ACP 121 Surface Preparation & Coatings II

Description This course is designed to enhance the students understanding of surface preparation and coatings learned in ACP 101. Students will demonstrate their ability to apply this knowledge to advanced projects.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ACP 101 Surface Preparation & Coatings

ACP 124 Specialized Coatings Processes II

Description This course is designed to enhance the students' understanding of aviation coatings processes learned in ACP 104. Students will demonstrate their ability to apply this knowledge to advanced projects.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite ACP 104 Specialized Coating Processes

ACP 145 Environmental Health and Safety

Description Environmental Health and Safety (EHS) is a comprehensive course designed to provide students with a solid foundation in the principles and practices of maintaining a safe and healthy environment in an industrial paint setting. This course covers a wide range of topics crucial for ensuring the well-being of workers, the protection of the environment, and compliance with industry regulations. Throughout this course, students will delve into essential areas of EHS, including industrial paint shop safety, personal protective equipment (PPE), hazardous materials and chemical safety, fire safety, electrical safety, respiratory protection, ventilation systems, emergency preparedness and response, safe operation of equipment, ergonomics, safety audits, and inspections.

Total Credits 2

Total Hours 30

ACR 112 HVAC Fundamentals

Description This course is designed to introduce students to the HVAC industry. Topics include basic HVAC concepts and theories of refrigeration, the laws of thermodynamics, pressure and temperature relationships, heat transfer, refrigerant identification, and the refrigeration cycle. Technical skills will be introduced in soldering, brazing and refrigerants. Additionally, students will become familiar with trade related organizations, safety and job requirements.

Total Credits 4

Total Hours 105

ACR 113 Electrical Fundamentals

Description Students will be introduced to basic electrical theory for DC and AC systems. The students will become familiar with the production of electricity and how to apply Ohm's Law and Power Formula. Additional topics include electrical safety, reading and interpreting schematic designs.

Total Credits 4

Total Hours 90

ACR 116 Workplace Skills

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

Total Credits 1

Total Hours 15

ACR 117 Intro to Mechanical Refrigeration

Description The students will learn the basics of the refrigeration system and its components. The students will also learn proper refrigerant handling techniques regarding system evacuation and charging; and the best practices for refrigerant recovery, reclamation, and recycle – all of which form the basis for the EPA 608 exam.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite ACR 112 HVAC Fundamentals

ACR 118 Electrical Fundamentals II

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ACR 113 Electrical Fundamentals

ACR 119 Advanced Electrical Theory for HVAC

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite ACR 118 Electrical Fundamentals II

ACR 121 Heating System Fundamentals

Description This course will provide students with a firm understanding of combustion and how it is applied in the HVAC industry. Residential gas furnaces will be studied in detail to gain understanding in service and installation, including standard, mid-range, and high efficiency furnaces.

Total Credits 3

Total Hours 75

ACR 122 Heating System Fundamentals II

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

Total Credits 3

Total Hours 60

ACR 123 Heat Loads and Duct Sizing

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite ACR 121 Heating System Fundamentals

ACR 124 Advanced Heating Systems

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ACR 121 Heating Systems Fundamentals

ACR 126 EPA 608

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite ACR 117 Introduction to Mechanical Refrigeration

ACR 127 Heat Pumps

Description The student will learn basic functions of heat pump designs, charging, and trouble shooting.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite ACR 117 Intro to Mechanical Refrigeration

Prerequisite ACR 121 Heating System Fundamentals

ACR 128 Commercial HVAC

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

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite ACR 127 Heat Pumps

ACR 129 Commercial HVAC Lab

Description This course continues the introduction to commercial HVAC systems through hands-on training. Students will perform basic maintenance, repairs and troubleshooting on functioning light commercial and commercial equipment.

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite ACR 128 Commercial HVAC

ACR 140 Sheet Metal Fabrication I

Description Upon successful completion of this course, the student will be able to identify the components, equipment, and operations associated with sheet metal layout and fabrication. Duct sizing and code requirements for duct systems are also discussed.

Total Credits 3

Total Hours 75

ACR 210 Automation Controls & Sensors

Description This course introduces students to the essential components of automation controls and sensors used in building automation systems. Topics include the operation, configuration, and troubleshooting of sensors, actuators, and controllers for HVAC, lighting, and security systems. Students will gain practical skills in control circuit configuration and calibration, as well as the application of control theory to create automated systems. By the end of this course, students will be equipped to analyze and optimize various control strategies to enhance building efficiency.

Total Credits 3

Total Hours 60

ACR 220 Building Management Systems (BMS)

Description This course provides an in-depth look at Building Management Systems (BMS) and their role in integrating multiple building systems for enhanced efficiency and

control. Students will learn about BMS software and hardware components, including their application in managing HVAC, lighting, and security systems. The course emphasizes hands-on experience with BMS configuration, monitoring, and troubleshooting techniques, as well as data interpretation for performance assessment. Additionally, students will explore energy management strategies to optimize building operations and promote sustainability.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ACR 210 Automation Controls & Sensors

ACR 230 Data Analytics for Building Performance

Description In this course, students will learn how to apply data analytics to assess and improve building performance. The curriculum covers techniques for collecting and analyzing performance data, identifying trends in energy consumption, and making data-driven recommendations for operational enhancements. Students will also gain experience using data visualization tools to present findings and develop actionable insights for stakeholders. Case studies in building performance optimization and sustainability will reinforce concepts and highlight real-world applications of data analytics in the building automation industry.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite ACR 220 Building Management Systems (BMS)

ADN 110 Concepts of Professional Nursing: Transitioning from LPN to RN

Description This course focuses on the transition from a Licensed Practical Nurse (LPN) into the Associate Degree nursing program and introduces students to concepts under the categories of Client-Centered Care, Professional Nursing and Healthcare System. Students will be able to differentiate the scope of practice of the LPN from the RN. Emphasis is placed on concepts that are commonly used by professional nurses for the care of diverse clients, in a variety of settings, across the life span.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	BIO 150 Anatomy and Physiology
Prerequisite	ENG 101 English Composition
Prerequisite	ALH 175 Pathophysiology
Prerequisite	PSY 101 General Psychology

ADN 120 Introduction to Nursing Concepts

Description This course introduces students to a core set of concepts critical to professional nursing practice. Conceptual learning and its role in promoting deep learning will be examined. Students will complete concept analyses on selected concepts that will be used throughout the curriculum. Evidence-based exemplars will also be briefly reviewed in relation to selected concept.

Total Credits 1

Total Hours 15

Pre/Corequisites

Corequisite	ADN 130 Foundational Concepts in Nursing
Corequisite	ADN 140 Pharmacological Concepts in Nursing I

ADN 130 Foundational Concepts in Nursing

Description This course introduces students to concepts under the category of Client Centered Care. Instruction will emphasize the knowledge and skills needed by professional nurses to provide safe, quality care. The faculty will present the theoretical foundation for nursing skills and the nursing process, and students will demonstrate these skills in a laboratory setting.

Total Credits 6

Total Hours 150

Pre/Corequisites

Corequisite	ADN 120 Introduction to Nursing Concepts
Corequisite	ADN 140 Pharmacological Concepts in Nursing I

ADN 140 Pharmacological Concepts in Nursing I

Description The purpose of this course is to examine pharmacotherapeutic agents used in the treatment of illness and the promotion, maintenance, and restoration of wellness in diverse individuals. It focuses on drug classification, concepts, and principles of pharmacology with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. In addition, students examine the Nursing implications relative to the utilization of drug therapy and engage in discussion around the safety and legal implications of drug administration.

Total Credits 2

Total Hours 30

Pre/Corequisites

Corequisite	ADN 120 Introduction to Nursing Concepts
Corequisite	ADN 130 Foundational Concepts in Nursing

ADN 150 Professional Nursing Concepts I

Description This course introduces students to concepts under the categories of Professional Nursing and Healthcare System. Emphasis is placed on concepts that professional nurses commonly use in a variety of settings with diverse clients.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	ADN 120 Introduction to Nursing Concepts
Prerequisite	ADN 130 Foundational Concepts in Nursing
Prerequisite	ADN 140 Pharmacological Concepts in Nursing I
Corequisite	ADN 160 Client Care Concepts I
Corequisite	ADN 170 Pharmacological Concepts in Nursing II

ADN 160 Client Care Concepts I

Description This course focuses on the care of clients across the lifespan with concept-related health alterations that require intervention. Clinical experiences allow the student to apply theoretical concepts and implement safe client care to clients in various settings.

Total Credits	6
Total Hours	150

Pre/Corequisites

Prerequisite	ADN 120 Introduction to Nursing Concepts
Prerequisite	ADN 130 Foundational Concepts in Nursing
Prerequisite	ADN 140 Pharmacological Concepts in Nursing I
Corequisite	ADN 150 Professional Nursing Concepts I
Corequisite	ADN 170 Pharmacological Concepts in Nursing II

ADN 170 Pharmacological Concepts in Nursing II

Description	This course is a continuation of Pharmacological Concepts in Nursing I. The purpose of this course is to examine pharmacotherapeutic agents used in treating illness and promoting, maintaining, and restoring wellness in diverse individuals. It focuses on drug classification, concepts, and principles of pharmacology with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. In addition, students will have the opportunity to examine the nursing implications relative to the utilization of drug therapy. Finally, students will study the safety and legal implications of drug administration.
Total Credits	2
Total Hours	30

Pre/Corequisites

Prerequisite	ADN 120 Introduction to Nursing Concepts
Prerequisite	ADN 130 Foundational Concepts in Nursing
Prerequisite	ADN 140 Pharmacological Concepts in Nursing I
Corequisite	ADN 150 Professional Nursing Concepts I
Corequisite	ADN 160 Client Care Concepts I

ADN 180 Client Care Concepts II

Description	This course builds on Client Care Concepts I, focusing on the care of clients across the lifespan with concept-related health alterations that require intervention. Clinical experiences allow the student to apply theoretical concepts and implement safe client care to clients in a variety of settings.

Total Credits 6

Total Hours 150

Pre/Corequisites

Prerequisite	ADN 150 Professional Nursing Concepts I
Prerequisite	ADN 160 Client Care Concepts I
Prerequisite	ADN 170 Pharmacological Concepts in Nursing II
Corequisite	ADN 190 Professional Nursing Concepts II

ADN 190 Professional Nursing Concepts II

Description This course requires students to continue appraising concepts under the categories of Professional Nursing and Healthcare System. Instruction in this course emphasizes contemporary issues and the concepts of Health Care Law and Ethics, Healthcare Delivery Systems and Organizations, Healthcare Quality, Health Policy, Leadership and Management, and Professionalism and Professional Identity.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	ADN 150 Professional Nursing Concepts I
Prerequisite	ADN 160 Client Care Concepts I
Prerequisite	ADN 170 Pharmacological Concepts in Nursing II
Corequisite	ADN 180 Client Care Concepts II

ADN 200 Client Care Concepts III

Description This course builds on Client Care Concepts I and II, focusing on the care of clients across their lifespan with concept-related exemplary multisystem health alterations that require intervention. Clinical experiences allow the student to apply theoretical concepts and implement safe client care to clients in a variety of settings.

Total Credits 6

Total Hours 150

Pre/Corequisites

Prerequisite	ADN 180 Client Care Concepts II
Prerequisite	ADN 190 Professional Nursing Concepts II

Corequisite	ADN 210 Transition to Practice

ADN 210 Transition to Practice

Description This course facilitates the transition of the student to the role of a professional nurse. Emphasis is placed on contemporary issues and management concepts and developing the skills of delegation, conflict management, and leadership. Students will review the legal and ethical issues with a focus on personal accountability and responsibility. Standards of practice and the significance of functioning according to state regulations and statutes are analyzed. Clinical experiences provide the student with the opportunity to apply theoretical concepts.

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite	ADN 180 Client Care Concepts II
Prerequisite	ADN 190 Professional Nursing Concepts II
Corequisite	ADN 200 Client Care Concepts III

AER 106 Aerospace Manufacturing Tooling Orientation

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC103 Geometric Dimensioning & Tolerancing
Prerequisite	AVC104Quality Control Concepts
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 110 Safety/OSHA 10

AER 111 Tap and Die

Description This course provides knowledge and technical skills on taps and dies. Topics include 60° thread form, common fastener thread series and markings on taps.

The student will learn the process of hand tapping, the process of repairing a thread with a threading die and the process of installing a threaded insert.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AER 106 Aerospace Manufacturing Tooling Orientation

AER 115 Aerostructures Assembly

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

Total Credits 6

Total Hours 165

Pre/Corequisites

Prerequisite	AVC 127 Aviation Assembly Core or the following AVC courses
Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 140 Electrical Bonding & Grounding
Corequisite	MTH 020 Math Fundamentals

AER 116 Hand and Power Tools for Aerospace Tooling

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

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	AER 111 Tap & Die

AER 122 Introduction to Light Sport Aircraft, Structural Assembly I, Flight Surfaces

Description Students will be proficient in the techniques associated with aircraft assembly procedures. Subjects include the ability to identify proper PPE and usage, understand and practice hand and power tool shop safety practices, read, and understand parts lists and assembly drawings, perform inventory, identification, installation and removal of fasteners, component assembly, wing structures and flight control structures. Students learn in an environment which combines interactive online delivery of content of theory with hands on application in an assembly laboratory scenario.

Total Credits 3

Total Hours 90

AER 126 Tooling Capstone

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

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite	AER 116 Hand and Power Tools for Aerospace Tooling
Prerequisite	AER 150 Assembly Overview I

AER 135 Quality Assurance Orientation

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

Total Credits 1

Total Hours 15

AER 140 Assembly Mechanic Orientation

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

Total Credits 1

Total Hours 15

AER 150 Assembly Overview I

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

Total Credits 3

Total Hours 90

AER 155 Aerospace Plumbing

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 103 Geometric Dimensioning & Tolerancing
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 130 Assembly Mechanic Orientation
Prerequisite	AVC 135 Hand Tools
Prerequisite	AVC 112 Blueprint Reading

AER 157 Advanced Assembly

Description This course is the second of two courses designed to provide students with real world experiences as aviation sheetmetal assemblers. In a state-of-the-art assembly laboratory students will learn and apply drilling, countersinking skills as well as fastener installation and removal techniques. Students will learn to complete the work to the required standards within specified timeframes.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 150 Assembly Overview I

AER 162 Structural Assembly II, Tailcone & Empennage

Description Students will continue to develop proficiencies in techniques associated with aircraft assembly procedures as they build the Tailcone and Empennage components. Students will continue to demonstrate and identify PPE and proper usage, and practice hand and power tool shop safety practices, utilize parts lists and assembly drawings to assemble and install aircraft structural components.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 122 Light Sport Aircraft Assembly

AER 165 Electrical Assembly Mechanic Orientation

Description The electrical certificate educational program is a tremendous opportunity for you to learn technical skills that are needed for employment in the aerospace manufacturing industry. Your participation in this program is a unique opportunity

for you to set a course for success on your career journey. This course exposes students to the potential to a good career in the electrical wiring installation portion of aircraft manufacturing.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools

AER 166 Electrical Hand Tools

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools

Prerequisite	AER 165 Electrical Assembly Mechanic Orientation

AER 167 Basic Drilling & Riveting/Ground Stud Installation

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools
Corequisite	AVC 140 Electrical Bonding & Grounding
Prerequisite	AER 165 Electrical Assembly Mechanic Orientation

AER 168 Wire Installation Drawings

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing

Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools

AER 169 Crimping & Cables

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools
Prerequisite	AVC 140 Electrical Bonding & Grounding
Prerequisite	AER 165 Electrical Assembly Mechanic Orientation
Corequisite	AER 175 Wire Bundle Basics

AER 170 Fiber Optics for Aerospace

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools
Prerequisite	AER 165 Electrical Assembly Mechanic Orientation.

AER 172 Structural Assembly III, Fuselage Center Section

Description Students will continue to develop proficiency in the techniques associated with aircraft assembly procedures as they build the Fuselage Center Section and Bulkhead. Students will review proper PPE and usage, hand and power tool shop safety practices, parts lists, and assembly drawings. In this section students will review and perform inventory procedures to document and pull parts from inventory and stage and prepare them for assembly. Students learn in an environment which combines interactive online delivery of content theory with hands on application in an assembly laboratory scenario.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 162 Structural Assembly II, Tailcone & Empennage

AER 175 Wire Bundle Basics

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools

AER 177 Structural Assembly IV, Bulkheads & Support Structures

Description Students will continue to develop proficiency in the techniques associated with aircraft assembly procedures as they build the Fuselage Center Section and Bulkhead. Students will review proper PPE and usage, shop safety practices related to hand and power tools, parts lists, and assembly drawings. In this section, students will review and perform inventory procedures to document and pull parts from inventory and stage and prepare them for assembly.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 172 Structural Assembly III, Fuselage Center Section

AER 180 Soldering

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

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts

Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools
Prerequisite	AER 165 Electrical Assembly Mechanic Orientation,
Prerequisite	AER 166 Electrical Hand Tools

AER 182 System Assembly V, Fuel System & Flight Controls

Description Students will continue to develop proficiency in the techniques associated with aircraft assembly procedures as they fabricate, assemble, and install the different Flight, Fuel, and Engine Control Systems located in the Fuselage Center Section and other sections of the aircraft. Students will review the proper PPE, hand/power tools, shop safety practices, parts lists, and assembly drawing usage. Students will study and perform inventory procedures to document, retrieve parts from inventory to stage, and prepare them for assembly. Students learn in an environment that combines interactive online delivery of content theory with hands-on application in an assembly laboratory scenario.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 177 Structural Assembly IV, Bulkheads & Support Structures

AER 185 Wire Bundle Installation

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 102 Precision Instruments
Prerequisite	AVC 104 Quality Control Concepts

Prerequisite	AVC 105 Aircraft Familiarization
Prerequisite	AVC 107 Fundamentals for Aerospace Manufacturing
Prerequisite	AVC 108 Aircraft System & Components
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 120 Introduction to Sealing
Prerequisite	AVC 125 Bonding & Grounding
Prerequisite	AVC 135 Hand Tools
Prerequisite	AVC 140 Electrical Bonding & Grounding
Prerequisite	AER 165 Electrical Assembly Mechanic Orientation
Prerequisite	AER 166 Electrical Hand Tools
Prerequisite	AER 175 Wire Bundle Basics
Prerequisite	AER 169 Crimping & Cables
Prerequisite	AER 168 Wire Installation Drawings.

AER 187 System Assembly VI, Landing Gear & Power Plant

Description In this course, students will advance their skills in aircraft assembly techniques by focusing on the fabrication, assembly, and installation of critical components such as Landing Gear, Engine Mount, Cowling, Engine, Spinner & Propeller, Exhaust System, and Cooling & Heating Control Systems. Emphasis will be placed on components located forward and below the Fuselage Center Section and other sections of the aircraft. Additionally, students will revisit essential practices, including proper PPE usage, hand/power tool safety, and shop safety protocols. They will also learn to navigate parts lists, inventory sheets, and assembly drawings. Through hands-on training in an assembly laboratory setting, students will engage in interactive online theory sessions complemented by practical application, honing their abilities to perform inventory procedures, document parts, retrieve inventory items, stage components, and prepare them for assembly.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	AER 182 System Assembly V, Fuel System & Flight Controls

AER 192 System Assembly VII, Avionics, Canopy, & Windows

Description This comprehensive learning experience combines interactive online content delivery for theoretical knowledge with practical application in an assembly laboratory setting, providing students with a well-rounded understanding of aircraft

assembly processes. Students will enhance their skills in aircraft assembly techniques by fabricating, assembling, and installing Avionics and Electrical Systems in the Fuselage Center Section and other aircraft segments, including the Tailcone Assembly. During the course, students will review and execute inventory procedures to effectively document and retrieve parts from inventory for staging and assembly preparation. Students will review concepts, including usage of assembly drawings and safety protocols.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite AER 187 System Assembly VI, Landing Gear & Power Plant

AER 197 System Assembly VIII, Final Assembly & Systems Test

Description Students will enhance their skills in aircraft assembly techniques by fabricating, assembling, and installing Avionics and Electrical Systems in various aircraft sections, including the Fuselage Center Section and Tailcone Assembly. Students will also revisit safety protocols, including proper PPE and tool usage, while familiarizing themselves with parts lists, inventory management, and assembly drawings. Inventory procedures will be practiced to document and retrieve parts for staging and assembly preparation efficiently. Learning occurs through a blended approach, integrating interactive online theory with practical, hands-on experience in an assembly laboratory setting.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite AER 192 System Assembly VII, Avionics, Canopy, & Windows

AFV 110 Electrical I

Description In this course students will: Complete service work orders; describe the relationship between voltage, ohms and amperage; perform basic electrical circuit repairs; identify electrical system faults; identify basic wiring diagram symbols, components, and legend information; perform basic electrical circuit measurements using a DVOM; describe basic circuit characteristics of series, parallel and series parallel circuits through a variety of classroom and shop learning and assessment activities.

Total Credits 3

Total Hours 60

AFV 120 Electrical II

Description In this course students will: Perform battery diagnosis; perform battery service; perform starting system diagnosis; perform starting system repair; perform charging system diagnosis; perform charging system repair; identify current flow on starting and charging system diagrams through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AFV 110 Electrical I

AFV 130 Suspension and Steering I

Description In this course students will: document fundamental suspension system concerns; perform fundamental diagnostics of steering systems; perform fundamental repairs of steering systems; perform fundamental diagnostics of suspension systems; perform fundamental repairs of suspension systems; determine the need for wheel alignment and adjustment; perform fundamental diagnostics of wheel and tire systems; perform fundamental repairs of wheel and tire systems through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

AFV 135 Introduction to Alternative Fuels

Description Students will use various sources in the alternative fueled vehicle industry to learn what alternative fuels are available. Students will examine the need for alternative fuels including Propane, Natural Gas, Ethanol and Biodiesel. Students will also learn about new technologies such as Electric Drive and Hydrogen fueled vehicles as well as Fuel Economy and Idle Reduction considerations.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AFV 120 Electrical II

AFV 140 Engine Repair

Description Through a variety of learning and assessment activities students can: explore the theory and operation of internal combustion engine; demonstrate the ability to remove an automotive engine; demonstrate the ability to install an automotive engine; demonstrate the basic ability to inspect and repair cylinder head, valve trains and timing defects; demonstrate the ability to disassemble short block; demonstrate the ability to inspect short block; demonstrate the ability to repair short block; demonstrate the ability to reassemble short block; demonstrate the basic ability to inspect and repair engine lubrication; demonstrate the basic ability to inspect and repair engine cooling systems; inspect a cylinder head and valve train; repair a cylinder head and valve train; perform advanced level engine diagnosis.

Total Credits 4

Total Hours 60

AFV 145 Hybrid Systems & Maintenance

Description This course introduces the student to the features of the Internal Combustion Engine (ICE) as they apply to the hybrid vehicle, hybrid drive systems (transaxles and gears), brake systems, HVAC systems, and cooling systems service. First responder, predictive maintenance procedures, hybrid trucks, and Belted Alternator System (BAS) are also examined.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AFV 135 Introduction to Alternative Fuels

AFV 150 Electric/Fuel Cell Technology

Description This course is designed to help prepare the student to enter the automotive repair and service industry in the area of alternative fuels and advanced technology vehicles. It is an intensive study of vehicle electric and fuel cell theory, application, installation, diagnosis, service and safety regulations.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	AFV 135 Introduction to Alternative Fuels

AFV 155 High Voltage Battery Technology & Management

Description This course introduces the student to high voltage battery technology: electrical service safety precautions and personal protection, high voltage tools and equipment usage, battery energy management hardware systems, battery removal and installation, and battery rebuilding. The student will also be introduced to AC induction electric machines, permanent magnet electric machines, power inverter systems, electric propulsion sensing systems, communication networks, and predictive maintenance.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AFV 135 Introduction to Alternative Fuels

AFV 160 Brakes I

Description In this course students will Perform system pressure and travel calculations utilizing Pascal's Law; Complete service work orders; Determine appropriate system pressure tests utilizing service specifications; Determine brake system concerns and necessary actions; Diagnose poor stopping, pulling or dragging concerns caused by malfunctions in the hydraulic system; Determine how to inspect, fabricate and/or replace brake lines and hoses; Determine the service specifications pertaining to the removal, cleaning and refinishing procedures on brake drums; Apply drum brake repair and replacement procedures; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns on disc-brake vehicles; Determine disc brake repair and replacement procedures; Determine how to caliper piston retractions; Diagnose wheel bearing noise, wheel shimmy and vibration concerns; Determine how to remove, inspect and replace bearing and hub assemblies through a variety of classroom and lab/shop learning and assessment activities.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	AFV 120 Electrical II

AFV 165 Introduction to CNG and LPG Conversion, Installation & Maintenance

Description This course introduces students to CNG and LNG as forms of alternative fuels. It will teach them safety when fueling and servicing vehicles that use CNG or LNG. Students will be introduced to CNG conversions and factory installed use of CNG for duel fueled vehicles. Students will be introduced to fleet operations using LNG and how to service and maintain those vehicles.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite AFV 120 Electrical II

AFV 170 Computer Systems for Alternative Fuels

Description In this course students will: Perform automotive computer system diagnosis; perform vehicle communication diagnosis; perform engine computer system diagnosis; transmission computer diagnosis; perform air bag system diagnosis; perform heating and air conditioning electronic diagnosing; perform electronic anti-lock brake/traction/stability diagnosis; perform driver assistance system diagnosis; identify computer systems through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AFV 120 Electrical II

AFV 175 Automatic Transmission Repair

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the concept of theory and operation of automatic transmissions/transaxles; perform maintenance on an automatic transmission/transaxle; perform service on an automatic transmission/transaxle; diagnose automatic transmission/transaxles; inspect automatic transmission/transaxles; remove and reinstall automatic transmission; remove and reinstall automatic transaxles; disassemble automatic transmission and components; disassemble automatic transaxles and components; inspect automatic transmission components; inspect automatic transaxles and

components; repair automatic transmission and components; repair automatic transaxles and components; reassemble automatic transmission and components; reassemble automatic transaxles and components.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite AFV 120 Electrical II

AFV 180 Heating & Air Conditioning

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the fundamentals of automotive HVAC operations and environmental concerns, identify the appropriate refrigerant recovery and recycling guidelines; service refrigerant, recycling and handling systems; document fundamental heating and air conditioning system concerns; perform fundamental diagnostics of A/C systems; perform fundamental diagnostics of refrigeration systems components; perform fundamental repairs of refrigeration systems components; perform fundamental diagnostics of heating, ventilation, and engine cooling systems; perform fundamental repairs of heating, ventilation, and engine cooling systems; perform fundamental diagnostics of operating systems and related controls; perform fundamental repairs of operating systems and related controls; perform complex diagnostics of A/C Systems; document complex heating and air conditioning system concerns; perform complex diagnostics of refrigeration system components; perform complex repairs of refrigeration system components; perform complex diagnostics of heating, ventilation, and engine cooling systems.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite AFV 120 Electrical II

AFV 206 PowerTrain Systems

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: determine the general drive train diagnosis procedures; explore the fundamentals of clutch operation; explore the fundamentals of clutch removal, inspection and repair; determine the powerflow of the manual transmission and transaxle; perform fundamental manual transmission and transaxle inspection and

repair according to service specifications; perform fundamental differential inspection and repair according to service specifications; perform fundamental diagnosis, inspection and replacement of drive axle shafts and supporting components; perform fundamental diagnosis, inspection, adjustment and repair of four- and all-wheel drive components; diagnose drive train issues; diagnose clutch concerns; perform the removal, inspection and/or repair of the clutch and its components; conduct a transmission and transaxle inspection and repair according to service specifications; conduct a differential inspection and repair according to service specifications; conduct the diagnosis, inspection and replacement of drive axle shafts and supporting components; conduct the diagnosis, inspection, adjustment and repair of four- and all-wheel drive components.

Total Credits 4

Total Hours 60

AFV 225 Electrical III

Description In this course students will: perform charging system diagnosis; perform charging system repair; identify current flow on starting and charging system diagrams through a variety of learning and assessment activities.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite AFV 120 Electrical II

ALH 101 Medical Terminology

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

Total Credits 3

Total Hours 45

ALH 105 First Aid & CPR

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

Total Credits 3

Total Hours 45

ALH 110 Principles of Nutrition

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

Total Credits 3

Total Hours 45

ALH 115 Pharmacology

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ALH 101 Medical Terminology or BIO 150 Human Anatomy & Physiology

ALH 121 Legal and Ethical Issues in Healthcare

Description This course introduces various ethical and moral issues in the context of healthcare and medical professions. This course will examine ethical issues related to healthcare such as: beginning of life issues, healthcare policy/distribution, healthcare law, at risk populations, doctor-patient relationships, healthcare research/technology, and end of life decision making in consideration of various sociocultural, socioeconomic, and lifestyle factors. This course will also overview moral theories such as: utilitarianism, deontology, and virtue ethics and relate these theories to decision making processes at global and local levels.

Total Credits 3

Total Hours 45

ALH 130 Emergency Preparedness for Health Professionals

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

Total Credits 1

Total Hours 15

ALH 131 Diseases, Disorders & Diagnostic Procedures

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

Total Credits 2

Total Hours 30

ALH 135 Spanish for Health Care Providers

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

Total Credits 1

ALH 155 Pharmacology for Allied Health

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

Total Credits 3

Total Hours 45

ALH 175 Pathophysiology

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

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite BIO 150 Human Anatomy & Physiology

AMT 187 General I

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. This course includes human factors, regulations, maintenance forms & records. Students will learn to properly: document a major repair or alteration (FAA form 337), complete airworthiness directive (AD) searches and determine applicability to aircraft, determine aircraft inspection status by reviewing maintenance records, file a malfunction defect report (MDR), interpret aircraft drawings, create a drawing of repair of alteration, interpret graphs and charts used in aviation.

Total Credits 4

Total Hours 7

AMT 188 General II

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: determine cubic inch displacement of aircraft engines, calculate and prove a mechanical advantage in relation to aircraft systems, weigh aircraft, determine aircraft center of gravity, determine useful fuel load, aircraft required equipment, adverse loading center of gravity, and ballast placement.

Total Credits 4

Total Hours 75

Pre/Corequisites

Prerequisite AMT 187 General I

AMT 189 General III

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to utilize hand tools, hardware & measuring devices used in the aviation industry. Students will learn the proper techniques employed in inspecting aircraft corrosion and the proper ways to prevent corrosion. In addition, students will learn how to measure, bend, and terminate fluid lines utilizing aviation fitting.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 188 General II

AMT 190 General IV

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: tow aircraft, tie-down aircraft, store aircraft, fuel aircraft, identify fire hazards, fire prevention, FOD Prevention, perform circuit continuity testing, measure voltage, current, and resistance, troubleshoot circuits, and inspect and service aircraft batteries.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 189 General III

AMT 191 General

Description This course is designed to develop correct and safe usage of aircraft hardware with specific emphasis on Federal Aviation Administration Regulations that pertain to the Airframe and Powerplant mechanic. Academic standard for passing this course is a minimum of 70%.

Total Credits 3

Total Hours 60

AMT 233 Airframe I

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: Tension flight control cables, identify hardware used in rigging, weigh and balance surfaces, adjust various flight control systems, document component removal, identify airframe styles and components.

Total Credits 4

Total Hours 75

Pre/Corequisites

Prerequisite AMT 190 General IV

AMT 234 Airframe II

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: inspect aviation welds, identify defects in welds, determine the airworthiness of welds, install and remove aviation fasteners, design, prepare, and install a repair patch on an aircraft or component.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 233 Airframe I

AMT 235 Airframe III

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to correctly: identify woods used in aviation, inspect fabric coverings, clean and inspect acrylics, inspect composite materials, perform a tap test, and complete a layup for a composite repair.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 234 Airframe II

AMT 236 Airframe IV

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: remove and install a selector valve; inspect, remove, and clean a hydraulic system filter; remove, install, and operationally check a hydraulic pump and inspect and troubleshoot pneumatic systems. In addition, students will inspect, repair, and troubleshoot fuel systems; service a fuel system strainer; and inspect fuel tanks.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 235 Airframe III

AMT 237 Airframe V

Description This course is designed to develop correct safety practices, comprehensive Knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: Inspect land gear, service land gear, Inspect wheels, Inspect

brakes, Inspect bearing, inspect tires, remove and replace brake linings, service landing gear air/oil shocks struts, bleed hydraulic brake systems, trouble shoot a hydraulic brake system, service a nose wheel shimmy damper, troubleshoot oxygen systems, operation of oxygen generators, inspect combustion heater fuel systems, troubleshoot air-cycle air-conditioning systems, service outflow pressurization valves, and operate and service waste water systems.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 236 Airframe IV

AMT 238 Airframe VI

Description This course is designed to develop correct safety practices, comprehensive Knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: Install airframe electrical wiring, switches, and devices, secure wire bundles, wire termination, determine electrical load, check output voltage of a system, inspect and service landing and operational lighting, trouble shoot electrically heated pitot-static system, inspect thermal anti-ice systems, inspect and operate a deicer boot, inspect and operate electrically heated windshields.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 237 Airframe V

AMT 239 Airframe VII

Description This course is designed to develop correct safety practices, comprehensive Knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: perform a static system leak test, remove and install instruments, inspect and operate a magnetic compass, perform VHF communications checks, inspect and service emergency locator transmitters, troubleshoot fire detection systems, perform operational checks on fire detection and extinguishing systems. Perform 100-hour inspections on an airframe.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 238 Airframe VI

AMT 240 Airframe

Description 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 course is a minimum of 70%.

Total Credits 4

Total Hours 75

AMT 253 Powerplant I

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: troubleshoot, inspect, and install fuel pressure indicators, fuel flow transmitters, tachometer, oil pressure, temperature, EGT, EPR, manifold warning system, low-pressure warning gauges, troubleshoot and repair an engine fire extinguishing system, perform a cylinder compression check, perform an engine start, inspect engine mounts, and perform the engine portion of a 100-hour inspection.

Total Credits 4

Total Hours 75

Pre/Corequisites

Prerequisite AMT 190 General IV

AMT 254 Powerplant II

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: install pistons and wrist pins, install a cylinder, operate and troubleshoot a reciprocating engine, inspect and rig engine controls, remove and install a propeller, measure propeller blade angle, repair a propeller blade, adjust propeller governors, inspect and service a propeller anti-icing system.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 253 Powerplant I

AMT 255 Powerplant III

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: Inspect, troubleshoot, and repair a continuous flow fuel injection system; remove, inspect, and install a turbine engine fuel nozzle; remove and install a carburetor metering jet; remove and install a float type carburetor, remove and install a fuel pump, adjust fuel pump pressure, inspect fuel selector valve. Students will inspect and troubleshoot oil system components and perform oil pressure adjustments. Students will also inspect turbochargers and air intake manifolds and repair cylinder baffles.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 254 Powerplant II

AMT 256 Powerplant IV

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: perform turbine engine inlet, and compressor guide vain inspections, map airflow and direction changes inside a turbine engine inspect a combustion liner, troubleshoot causes of engine performance loss, inspect a particle separator, check a bleed air system, perform an induction and cooling system inspection, inspect turbine engine exhaust system and components.

Total Credits 6

Total Hours 120

Pre/Corequisites

Prerequisite AMT 255 Powerplant III

AMT 257 Powerplant V

Description This course develops correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards. Students will learn to properly: troubleshoot an aircraft's electrical generating system, remove and install an engine direct drive electric starter, repair engine electrical systems, fabricate bonding jumpers, inspect engine electrical connectors, set magneto internal timing, time magneto to aircraft engine, troubleshoot and repair ignition systems, inspect ignition harness, troubleshoot engine ignitors, Inspect turbine engine ignition systems.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite AMT 256 Powerplant IV

AMT 258 Powerplant

Description This course is designed to develop correct safety practices, comprehensive knowledge, and technical skills required to perform maintenance procedures relevant to aircraft Induction & Airflow systems, Cooling systems, Exhaust Systems, Reverser Systems and engine fire detection and extinguishing 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 course is a minimum of 70%.

Total Credits 3

Total Hours 60

ART 100 Art Appreciation

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

Total Credits 3

Total Hours 45

AVC 102 Precision Instruments

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Corequisite MTH 020 Math Fundamentals

AVC 103 Geometric Dimensioning & Tolerancing

Description 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.

Total Credits 1

Total Hours 15

AVC 104 Quality Control Concepts

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

Total Credits 1

Total Hours 15

AVC 105 Aircraft Familiarization

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

Total Credits 1

Total Hours 15

AVC 107 Fundamentals for Aerospace Manufacturing

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

Total Credits 1

Total Hours 15

AVC 108 Aircraft Systems & Components

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

Total Credits 4

Total Hours 60

AVC 110 Safety/OSHA 10

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

Total Credits 1

Total Hours 15

AVC 112 Blueprint Reading

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

Total Credits 2

Total Hours 30

AVC 117 Hand & Power Tools

Description This course provides the technical knowledge used in Aviation and Manufacturing areas related to hand and power tools.

Total Credits 4

Total Hours 75

AVC 120 Introduction to Sealing

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

Total Credits 1

Total Hours 15

AVC 125 Bonding and Grounding

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

Total Credits 1

Total Hours 15

AVC 127 Aviation Assembly Core

Description This course provides students with the core knowledge necessary to be successful as an Aviation Sheetmetal Assembler. The topics will include safety, precision measurement, blueprint reading, sealing and electrical bonding techniques as well as quality control.

Total Credits 7

Total Hours 120

AVC 135 Hand Tools

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

Total Credits 1

Total Hours 15

AVC 137 Precision Measuring

Description 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.

Total Credits 2

Total Hours 30

AVC 140 Electrical Bonding & Grounding

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

Total Credits 1

Total Hours 15

AVC 145 Power Island

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

Total Credits 1

Total Hours 15

AVC 150 Human Factors

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

Total Credits 1

Total Hours 15

AVC 155 Aircraft Manufacturing Advanced Fastening Practices

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

Total Credits 1

Total Hours 15

AVC 160 Aircraft Control Surface Rigging

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

Total Credits 1

Total Hours 15

AVC 165 Technical Writing

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

Total Credits 1

Total Hours 15

AVC 170 Conflict Resolution

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

Total Credits 1

Total Hours 15

AVC 190 Aerospace Applied Learning

Description The Aerospace Applied Learning course represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals. This course is designed to be available from 4 to 8 credits.

Total Credits 4

Total Hours 180

AVT 118 Fundamentals of Flight

Description Fundamentals of Flight is a comprehensive introduction to the principles of flight, focusing on the key aerodynamic forces and aircraft control mechanisms. This course covers the basic theory of flight, examining how airfoils generate lift and the effects of thrust and drag on an aircraft's performance. Students will explore the concepts of aircraft stability and control.

Total Credits 3

Total Hours 45

AVT 128 Electricity & Electronics I

Description This course is designed to introduce the student to the fundamental concepts of electricity and electronics that involve direct current (dc) and alternating current (ac), including series, parallel and series-parallel resistive circuits, magnetism electro-magnetism, capacitance, inductance, and transformers. The lab portion of this course will provide students with hands-on experience with shop grade test equipment while performing experiments. Laboratory experiments are conducted on pre-assembled boards maximizing student productivity and allowing increased instructor interaction and support.

Total Credits 4

Total Hours 90

Pre/Corequisites

Corequisite MTH 108 Intermediate Algebra or MTH 112 College Algebra

AVT 138 Electricity and Electronics II

Description This course is the continuation of AVT 128 and is designed to introduce the student to the fundamental concepts of electricity and electronics that involve both analog and digital circuits. Students will explore key concepts such as diode and transistor circuits, amplifiers, oscillators, operational amplifiers, and power supplies. Additionally, the course covers fundamental digital logic, including flip-flops, combinational circuits, register memory, and arithmetic counting circuits. Through a combination of theoretical discussion, hands-on experiments, and troubleshooting exercises using trainers and pre-assemble circuit cards, students will develop the skills necessary to analyze, test, and troubleshoot analog and digital.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite AVT 128 Electricity & Electronics I

AVT 146 Avionics

Description This course provides a foundational understanding of aircraft instrumentation and the key avionics systems that interact to ensure safe and efficient flight. Students will explore major aircraft instruments, their components, and how they function individually and as part of an integrated avionics network. Special emphasis will be placed on understanding how these systems communicate and support automated flight through autopilot. The course will introduce students to the basics of autopilot operation, relevant terminology, and system integration, preparing them for further study inn advanced avionics applications.

Total Credits 3

Total Hours 45

AVT 156 Wiring & Cannon Plug Lab

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

Total Credits 2

Total Hours 60

AVT 166 Advanced Wiring

Description The Advanced Wiring course will instruct students in the fabrication and installation of electronic wiring interconnect systems. This instruction will include termination of individual stranded wires, shielded wires, twisted shielded pairs, and co-axial cables to cannon plugs, plastic connectors, terminal lugs, and terminal and ground blocks. Through classroom discussion and hands-on training, students will learn handling wire harnesses, ESD protection, proper wire routing, wire protection, electrical bonding, connector buildup, contact insertion, and extraction.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite AVT 156 Wiring & Cannon Plug or ELT 127 Wiring & Cannon Plug

AVT 175 Troubleshooting Essentials

Description The course emphasizes diagnostic procedures, system analysis, and the use of advanced troubleshooting tools and techniques. Through hands-on labs and real-world scenarios, students will develop proficiency in identifying faults, interpreting wiring diagrams, utilizing test equipment, and applying logical reasoning to solve problems efficiently. This course prepares students to handle both common and complex avionics issues in modern aircraft, enhancing their critical thinking and decision-making abilities.

Total Credits 3

Total Hours 75

AVT 185 UAS Operations

Description This course is an introduction to small, unmanned aircraft systems (UAS) including knowledge areas covered on the airman knowledge test for a Remote Pilot Certificate with a Small Unmanned Aircraft Systems Rating. Successful completion will prepare the student for the FAA Part 107 Remote Pilot Certificate.

Total Credits 3

Total Hours 45

AVT 195 Soldering

Description In this course, students learn the basic concepts, tools, materials, processes, and skills necessary for hand soldering through-hole and surface-mount chip components.

Total Credits 2

Total Hours 45

AVT 210 Communication, Navigation & Surveillance Systems I

Description This course is the first of two courses which study the electrical and electronic characteristics of typical aircraft electrical instrument systems, communications systems and navigation systems. Students will learn the primary system characteristics and interconnection requirements of typical avionics systems. Students will learn about radio operation and communication theory, VOR, ADF, ELT and other navigation systems.

Total Credits 5

Total Hours 120

AVT 220 Communication, Navigation & Surveillance Systems II

Description This course is the second of two courses which study the electrical and electronic characteristics of typical aircraft electrical instrument systems, communications systems and navigation systems. Students will learn the primary system characteristics and interconnection requirements of typical avionics systems. Students will learn about DME, ILS, MLS and other forms of navigation and surveillance systems.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite AVT 210 Communication, Navigation & Surveillance Systems I

AVT 230 Avionics Systems & Troubleshooting

Description This course introduces the student to avionics testing and troubleshooting. First, students will study the troubleshooting theory of VHF COM, VHF NAV, ILS, Marker Beacon, DME, Transponder, and Pitot-Static systems. Further study of complex wiring diagrams will help the student relate the theoretical to the practical. Then, in the lab portion of this course, the student will operate the most common avionics test equipment: and will learn to perform standard functional tests: VHF COM, VHF NAV, ILS, Marker Beacon, Transponder, DME, SWR, and operation of a Time Domain Reflectometer. Troubleshooting common avionics problems will also be introduced as students troubleshoot system faults on avionics system trainers and various aircraft.

Total Credits 5

Total Hours 120

AVT 240 Aircraft and Electronics for NCATT Applications

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

Total Credits 4

Total Hours 60

BAF 103 Finance

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	ACC105 Fundamentals of Accounting
Prerequisite	ECO105 Principles of Macroeconomics

BAF 105 Introduction to US Financial System

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

Total Credits 3

Total Hours 45

BAF 121 Introduction to Bank Management

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	BAF103 Finance
Prerequisite	BAF105 Introduction to US Financial System

BIO 100 Biology Review

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

Total Credits 1

Total Hours 15

BIO 110 Principles of Biology

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

Total Credits 5

Total Hours 105

BIO 120 Environmental Biology

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

Total Credits 3

Total Hours 45

BIO 125 Science Prospectus

Description An interdisciplinary study of how science influences all aspects of human life. Students will examine lifestyle issues and critically analyze the relationship among population, natural resources, land use, agriculture, biodiversity, industrialization and pollution and our role in these processes. Everything from food science to astronomy will be explored. Topics will be centered around problem solving and discussions using scientific data and critical thinking skills.

Total Credits 3

Total Hours 45

BIO 130 Biology I

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

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite BIO 110 Principles of Biology

BIO 135 Biology II

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

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite BIO 130 Biology I

BIO 145 Human Anatomy & Physiology I

Description This course represents the first of an eight (8) credit hour Anatomy & Physiology course and is designed to provide students with a thorough study of the anatomy & physiology of the human body. The student is expected to enroll in the second half of the course (BIO 146 Human Anatomy & Physiology II) during the same academic year, and both courses (BIO 145 Human Anatomy & Physiology I and BIO 146 Human Anatomy & Physiology II) must be taken to be equivalent to BIO 150 Human Anatomy & Physiology. Lecture and lab studies will include organization of the body; cells; tissues; membranes and glands; skeletal; muscular; nervous; sensory and endocrine system.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	BIO 100 Biology Review or
Prerequisite	BIO 110 Principles of Biology

BIO 146 Human Anatomy & Physiology II

Description This course represents the second of an eight (8) credit hour Anatomy and Physiology course and is designed to provide students with a thorough study of the anatomy and physiology of the human body. The student is expected to enroll in the first half of the course (BIO 145 Human Anatomy & Physiology I) during the same academic year, and both courses BIO 145 Human Anatomy & Physiology I and BIO 146 Human Anatomy & Physiology II must be taken to be equivalent to BIO 150 Human Anatomy & Physiology. Lecture and lab studies will include the cardiovascular system, lymphatic system, respiratory system, digestive system, metabolism, urinary system, electrolyte and acid-base balance and reproductive systems.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	BIO 145 Human Anatomy & Physiology I

BIO 150 Human Anatomy & Physiology

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

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite BIO 110 Principles of Biology, BIO 160 Microbiology, or CHM 110 General Chemistry

BIO 151 Anatomy & Physiology Enhancement

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

Total Credits 1

Pre/Corequisites

Prerequisite BIO150 Human Anatomy and Physiology

BIO 160 Microbiology

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

Total Credits 5

Total Hours 105

BUS 104 Introduction to Business

Description Studies various types of business organizations and the relationships of business to government and management to labor. Management's perspective of

production, marketing, personnel, finance and transportation is a constant consideration.

Total Credits 3

Total Hours 45

BUS 106 Office Procedures

Description Prepares students to handle situations in an office setting. Students learn office management skills including communication and organization skills.

Total Credits 3

Total Hours 45

BUS 121 Business Communications

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

Total Credits 3

Total Hours 45

BUS 125 Business Law

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

Total Credits 3

Total Hours 45

BUS 130 Personal Finance

Description 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 a successful personal life. Aids individuals in establishing and

maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

Total Credits 3

Total Hours 45

BUS 135 Introduction to Public Relations

Description In this course students will learn the theories that are the backbone of all public relations practitioners while also learning the roles and responsibilities of those who practice in the field. Students will explore the issues and challenges facing public relations practitioners in today's technological, multicultural and global environment. Students will put their knowledge to the test by creating and presenting a public relations plan.

Total Credits 3

Total Hours 45

BUS 140 Principles of Marketing

Description 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 titles and moving goods from producer to consumer, buying, selling, storing, transporting, standardizing, financing, risk-bearing and supplying market information. The free enterprise and the government’s contribution, retailing and international marketing are discussed at length.

Total Credits 3

Total Hours 45

BUS 145 Dreamweaver

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

Total Credits 3

BUS 160 Human Relations

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

Total Credits 3

Total Hours 45

BUS 180 Business Internship

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

BUS 200 Principles of Management

Description The purpose of this course is to aid the student in the development of an understanding of the various methods utilized in the management of the assets, including human assets, of the firm. Principal emphasis is placed upon the broad scope of management including the various functions of management science and the intended outcomes of managerial actions. The learning outcomes and competencies detailed in this course standard meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

Total Credits 3

Total Hours 45

CAT 101 CATIA Part Design & Sketcher

Description This course provides an introduction to the 3D EXPERIENCE platform, including searching, creating and editing objects. This course covers the creation of solid parts without complex contours. Students will be introduced to the part environment of 3D EXPERIENCE and learn how to work between the Sketcher and Part Design workbenches to create individual parts.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite MCD 104 Blueprint Reading for Drafters or MMG 113 Print Reading or equivalent

CAT 102 CATIA Drafting

Description This course covers the creation of engineering drawings. Students will be introduced to the drafting environment of 3DExperience and learn how to create drawings from parts and products.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite CAT 101 CATIA Part Design & Sketcher

CAT 103 CATIA 3D Tolerancing & Annotations

Description This course is for those interested in model-based definition, where the 3D model is the master instead of the draft sheet. This course covers all of the necessary options to properly apply tolerancing and annotations on the 3D part or product.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite CAT 101 CATIA Part Design & Sketcher

CAT 105 CATIA Assembly Design

Description This course covers the use of multiple parts to create an assembly. This includes manipulating parts in an assembly, creating engineering connections and analyzing assemblies. It also covers designing within the context of an assembly, including creating and using publications.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite CAT 101 CATIA Part Design & Sketcher

CAT 110 CATIA Wireframe & Surfaces

Description This course is an extension of the part environment which covers the use of wireframe and surface geometry to create complex contours. This course concentrates on the tools available and how to integrate this geometry back into a solid part.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite CAT 101 CATIA Part Design & Sketcher

CAT 115 CATIA Prismatic Machining

Description 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 3DExperience and learn how to work between the process, part and product environments.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite CAT 101 CATIA Part Design & Sketcher

Prerequisite CAT 105 CATIA Assembly Design

CAT 124 CATIA Surface Machining

Description 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 and Mill-Turn Machining.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	CAT 101 CATIA Part Design & Sketcher
Prerequisite	CAT 105 CATIA Assembly Design
Prerequisite	CAT 115 CATIA Prismatic Machining

CCP 100 Introductory Craft Skills

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	SAF 101 Safety Orientation/OSHA 10

CCP 108 Construction Basics

Description This course is the curriculum for Carpentry Basics under the National Center for Construction Education (NCCER). The course covers eight topics and starts by introducing the carpentry trade, including history, career opportunities, and requirements. The course includes study and practice required for framing a simple structure. Specific topics are building materials, fasteners and adhesives, hand and power tools, reading plans & elevations, floor systems, wall and ceiling framing, roof framing and windows and exterior doors.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	CCP 100 Introductory Craft Skills

CCP 112 Carpentry I

Description Carpentry I is the introductory course in a two-course series. This course, aligned with the NCCER General Carpentry 6th edition modules, provides a comprehensive foundation in carpentry skills. The curriculum encompasses Orientation to Carpentry, Building Materials and Fasteners, Construction Plans and documents, and Principles of Site and Building Layout.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite CCP 108 Construction Basics

CCP 122 Carpentry II

Description Carpentry II builds upon the foundational skills acquired in Carpentry I. This course focuses on constructing and assembling floor systems, wall systems, roof framing, basic stair layout, and building envelope systems. The curriculum is aligned with the NCCER General Carpentry 6th edition modules, ensuring an industry-relevant learning experience.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite CCP 112 Carpentry I

CCP 124 Exterior Envelope

Description This course is the curriculum for Exterior Envelopes under the National Center for Construction Education (NCCER). This course describes commercial roofing materials and structures and the procedures for installing commercial roofing, such as standing-seam, lap-seam, and built-up roofs. In addition, it provides information about the selection and installation of various types of insulating materials in walls, floors, and attics. It also covers the uses and installation practices for vapor barriers and waterproofing materials. Finally, it covers various exterior finish materials and their installation procedures, including wood, metal, vinyl, and fiber-cement siding.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CCP 122 Carpentry II

CCP 128 Interior Systems

Description This course is the curriculum for Interior Systems under the National Center for Construction Education (NCCER). The course covers the various types of gypsum drywall, their uses, the fastening devices and installation methods, and detailed instructions for installing drywall on walls and ceilings using nails, drywall screws, and adhesives. It also covers the materials, tools, and methods used to finish and patch gypsum drywall. Instruction on the materials, layout, and installation procedures for many types of suspended ceilings used in commercial construction, ceiling tiles, drywall suspension systems, and pan-type ceilings, is also covered.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite	CCP 122 Carpentry II

CCP 134 Introduction to Concrete Construction

Description This course is the curriculum for Intro to Concrete Construction under the National Center for Construction Education (NCCER). This course covers the properties, characteristics, and uses of cement, aggregates, and other materials that, when mixed, form different types of concrete. In addition, it covers the materials used in the reinforcement of concrete. It also covers the planning process that precedes the start of work on a construction site, including environmental considerations, personnel issues, access roads, traffic control, permits, site safety, utilities, and crane-related concerns. Finally, the course covers the principles of site layout and leveling and the techniques required for working in and around excavations.

Total Credits 3

Total Hours 75

CCP 138 Advanced Framing

Description This course is the curriculum for Advanced Framing under the National Center for Construction Education (NCCER). This course covers the skills needed to become an effective crew leader - basic leadership skills, safety, and project control. It describes the planning process that precedes the start of work on a construction site, including environmental considerations, personnel issues, access roads, traffic control, permits, site safety, utilities, and crane-related concerns. It covers

the different wall systems and their installation, including wood and steel framing materials. It also covers guidelines for selecting and installing metal framing for interior and exterior walls, loadbearing and nonbearing walls, partitions, and other applications.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CCP 122 Carpentry II

CCP 144 Advanced Finish and Trim

Description This course is the curriculum for Advanced Finish under the National Center for Construction Education (NCCER). This course covers the different types of trim used in finish work and focuses on the proper methods for selecting, cutting, and fastening trim to provide a professional finished appearance. The course also offers extensive coverage of the materials and techniques used in finishing wood stairways and the variety of stair systems used in commercial construction.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CCP 122 Carpentry II

CCP 148 Vertical and Horizontal Formwork

Description This course is the curriculum for Vertical and Horizontal Formwork under the National Center for Construction Education (NCCER). This course describes basic site layout tools and methods; layout and construction of deep and shallow foundations; layout and forming of slabs-on-grade; and forms used for curbing and paving. It covers the applications and construction methods for types of forming and form hardware systems for walls, columns, and stairs, as well as slip forms, climbing forms, and shaft forms. It also covers elevated decks and formwork systems and methods used in their construction.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite CCP 134 Introduction to Concrete Construction

CCP 154 Finishing Concrete

Description This course is the curriculum for Finishing Concrete under the National Center for Construction Education (NCCER). This course covers how tilt-up concrete construction is used, and tilt-up panels are formed, erected, and braced. It reviews the rebar installation and types of embedment used to lift and brace the panels. The methods used to achieve architectural and decorative finishes are also covered. The course also covers the tools, equipment, and procedures for handling, placing, and finishing concrete. It describes how joints are made in concrete structures, the use of joint sealants, and form removal procedures. Safety procedures for handling, placing, and finishing concrete are emphasized.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite CCP 134 Introduction to Concrete Construction

CCP 155 FEMA Doors & Hardware

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

Total Credits 1

Total Hours 15

CCP 168 Equipment Operation

Description This course is the curriculum for Equipment Operation under the National Center for Construction Education (NCCER). Heavy equipment operators are highly skilled workers who are needed on every construction site and in every mining operation. A skilled operator has many opportunities for advancement with an employer or as an entrepreneur. Many large excavating and site-development companies operating today were founded by equipment operators who started with a single machine. This course provides training on common types of equipment and instruments used for finish grading, materials and methods used to stabilize soils

and control soil erosion, and finishing and grading methods used for various applications.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite CCP 122 Carpentry II

CCP 172 Fundamentals of Crew Leadership

Description This course is the curriculum for Fundamentals of Crew Leadership under the National Center for Construction Education (NCCER). This course covers the skills needed to become an effective crew leader. It will help a crew leader who wants to become more effective, as well as a crew member who aspires to become a crew leader. The module covers basic leadership skills, safety, and project control.

Total Credits 2

Total Hours 30

CCP 180 Cabinet Installation

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

Total Credits 1

Total Hours 15

CCP 185 Carpentry Internship I

Description In this course students will have the opportunity to link classroom/ lab theory with an experimental learning opportunity. Through direct observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and customers. The student will identify how these relate to their program of study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection of their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite CCP 180 Cabinet Installation

CCP 187 Carpentry Internship II

Description This course is a continuation of Carpentry Internship I in which students continue their work in experiential learning. Through observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and customers. The student will identify how these relate to their program of study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection of their internship experience, demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite CCP 180 Cabinet Installation

Prerequisite CCP 185 Carpentry Internship I

CED 108 Word Processing

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

Total Credits 3

Total Hours 45

CED 115 Computer Applications

Description This course introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, introduction to the

windows environment, introduction to networking, introduction to word processing, introduction to spreadsheets, and introduction to databases.

Total Credits 3

Total Hours 45

CED 116 Advanced Word

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite CED 115 Computer Applications

CED 117 Advanced Excel

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite CED 115 Computer Applications

CED 118 Advanced PowerPoint

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	CED 115 Computer Applications

CED 120 Advanced Computer Applications

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CED 115 Computer Applications

CED 140 Introduction to Social Media and Personal Branding

Description Students will learn how to use social media platforms to stay in touch with colleagues, promote their business and keep up with news. Students will learn how to build their own personal brand and use the social media platforms to promote themselves.

Total Credits 2

Total Hours 45

CFT 101 Introduction to Composites

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 110 OSHA/Safety
Prerequisite	MTH 020 Math Fundamentals

Prerequisite	AVC 102 Precision Instruments

CFT 106 Composite Finish Trim

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	CFT 101 Introduction to Composites
Prerequisite	CFT 130 Composite Fabrication Methods/Application
Prerequisite	AVC 110 Safety/OSHA 10 AY 2014-15

CFT 107 Composite Assembly

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	CFT 106 Composite Finish Trim

CFT 112 Composite Assembly I

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

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	CFT 106 Composite Finish Trim

CFT 113 Composite Assembly II

Description Composite Assembly II continues the topics learned in Composite Assembly I. In this course students will focus on the skills and techniques associated with nonstructural bonding. Safe procedures are emphasized. The course consists of theory and practical application through hands-on projects.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	CFT 112 Composite Assembly I

CFT 130 Composite Fabrication Methods /Applications

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	AVC 112 Blueprint Reading AY 2014-15
Prerequisite	CFT 101 Introduction to Composites

CFT 135 Overview of Composite Inspection

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

Total Credits 1

Total Hours 15

CFT 140 Composite Inspection

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

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	AVC 112 Blueprint Reading
Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	CFT 101 Introduction to Composites
Prerequisite	CFT 106 Composites Finish Trim
Prerequisite	CFT 107 Composite Assembly
Prerequisite	CFT 130 Composite Fabrication Methods/Application

CFT 141 Disassemble & Damage Removal Techniques

Description This course provides students 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 students' tactile skills in all these areas. Theory in this course is taught using an interactive on-line environment.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Corequisite	CFT 140 Composite Inspection
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	CFT 101 Introduction to Composites
Prerequisite	CFT 106 Composite Finish Trim

Prerequisite	CFT 107 Composite Assembly
Prerequisite	CFT 130 Composite Fabrication Methods/Applications

CFT 142 Composite Repair

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

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite	CFT 141 Disassembly and Damage Removal Techniques

CFT 143 Complex Composite Repairs

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CFT 144 Electrical Bonding Repair

CFT 144 Electrical Bonding Repair

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

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	CFT 142 Composite Repair

CHM 110 General Chemistry

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

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite	MTH 020 Math Fundamentals

CHM 125 Chemistry I

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

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite	CHM 110 General Chemistry
Prerequisite	MTH 101 Intermediate Algebra
Corequisite	MTH 112 College Algebra

CHM 135 Chemistry II

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

Total Credits 5

Total Hours 105

CLD 113 Introduction to Python

Description Programmers are in higher demand today than ever before. Get the essential skills and tools to become a successful software engineer and learn the fundamental concepts and practices that are critical to the task of coding—no matter what language you choose. In this course, students will develop the knowledge to begin programming in any language, connect programming theory to practice in real-life scenarios, and apply best practices from experts in the field.

Total Credits 3

Total Hours 60

CLD 118 Cloud Fundamentals

Description This course covers cloud services from a business perspective. This includes the business value of cloud computing, cloud types, steps to a successful adoption of the cloud, impact and changes on IT service management, as well as risks and consequences.

Total Credits 3

Total Hours 45

CLD 121 Object-Oriented Programming (JavaScript)

Description JavaScript is a scripting language of the web. As the web evolves from a static to a dynamic environment, technology focus is shifting from static markup and styling—frequently handled by content management systems or automated scripts—to dynamic interfaces and advanced interaction. Once seen as optional, JavaScript is now becoming an integral part of the web, infusing every layer with its script. Object-Oriented Programming (OOP) refers to using self-contained pieces of code to develop applications. IT professionals call these self-contained pieces of code objects, better known as Classes in most OOP programming languages and Functions in JavaScript. IT professionals use objects as building blocks for our applications. Building applications with objects allows us to adopt some valuable techniques. In this course students will build their understanding of JavaScript piece by piece, from core principles like variables, data types, conditionals, and functions through advanced topics including loops, closures, DOM printing, and learn Inheritance and Encapsulation since only these two concepts apply to OOP in JavaScript; in JavaScript objects can encapsulate functionalities and inherit methods and properties from other objects.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 129 Programming Foundations (Swift iOS) or
Prerequisite	INF 113 Introduction to Programming

CLD 122 Introduction to Web Development

Description This course introduces students to basic web design using HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), JavaScript, and PHP. Throughout the course students are introduced to planning and designing effective websites; implementing web pages by writing code; producing a functional, multi-page website; and navigating how to choose and set up a server to host their sites on. The course does not require any prior knowledge of coding or web design.

Total Credits 3

Total Hours 75

CLD 123 DevNet I

Description The DevNet I course introduces the methodologies and tools of modern software development, applied to the IT and Network operations. It covers a 360 view of the domain including microservices, testing, containers, and DevOps, as well as securely automating infrastructures with Application Programming Interfaces (APIs). Students completing this course gain practical, relevant, hands-on lab experience, including programming in Python, using GIT and common data formats (JSON, XML and YAML), deploying applications as containers, using Continuous Integration/Continuous Deployment (CI/CD) pipelines and automating infrastructure using code.

Total Credits 3

Total Hours 60

CLD 126 Test Driven Development (JavaScript)

Description Programmers shouldn't have to guess whether the software is working correctly. They should be able to prove it, every step of the way. A formal test-driven development (TDD) process allows programmers to build testing into their daily routine. They can run tests many times a day, getting instant feedback on the quality of the code. This course explains how to adopt a TDD mindset and process—vital skills for all modern software developers. Find out what makes a good test, why programmers should be more interested in failure than success, and how to measure and repeatedly run tests. Together students will explore the jargon: test suites, test harnesses, mock and stub objects, and more, how TDD is

used in the most common programming languages, TDD environments, and what tools/frameworks exist to help programmers succeed.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 129 Programming Foundations (Swift iOS)

CLD 129 Programming Foundations (Swift iOS)

Description Programming Foundations (Swift iOS) will introduce students to the basics of programming and app development using Apple's native language, Swift. This course will provide students with a solid foundation in programming fundamentals that can be carried over into other Object-Oriented Programming (OOP) languages such as Python, C#, and JavaScript.

Total Credits 3

Total Hours 60

CLD 131 Continuous Integration Continuous Deployment – CICD

Description Continuous delivery (CD) answers two difficult questions: "How do we release software more quickly in response to user demand?" and "How do we release high-quality software reliably?" Using special practices and tools, teams can address both concerns. In this course, learn about continuous integration and continuous delivery (CI/CD), and see how these concepts work in practice by constructing your own build pipeline. Throughout the course, students will discuss elements of the pipeline as they show how to take an app written in the Go programming language from development to production. Students will walk through version control, building artifacts, unit testing, and deployment, demonstrating common practices and tools along the way.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 121 Object-Oriented Programming (JavaScript) or

Prerequisite CLD 138 Object- Oriented Programming (Python)

CLD 137 C# Programming Language

Description C# is one of the most widely used general-purpose programming languages. As a result, C# is often developers' primary choice for creating a wide range of desktop, cloud, and mobile applications. This course will take students through C# from the ground up in a step-by-step manner. By the end of this course, students will be well versed with the essentials of C# language and be ready to start creating apps with it.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 129 Programming Foundations (Swift iOS) or
Prerequisite	INF 113 Introduction to Programming

CLD 138 Object-Oriented Programming (Python)

Description Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity, object-oriented application, and code reuse. Object Oriented Programming (OOP) refers to using self-contained pieces of code to develop applications. IT Professionals call these self-contained pieces of code objects, better known as Classes in Python. IT Professionals use objects as building blocks for scripting and applications which allows us to adopt some valuable techniques. In this course students will build their understanding of Python piece by piece starting with the basics and work into algorithms, standard libraries, GUI development, and generators. At the end of this course students will be fully proficient in python having covered advanced python development as well as parallel and concurrent programming.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	CLD 129 Programming Foundations (Swift iOS) or
Prerequisite	INF 113 Introduction to Programming

CLD 141 Test Driven Development (Python)

Description Programmers shouldn't have to guess whether software is working correctly. They should be able to prove it, every step of the way. A formal test-driven development (TDD) process allows programmers to build testing into their daily routine. Programmers can run tests many times a day, getting instant feedback on the quality of their code. This course explains how to adopt a TDD mindset and process—vital skills for all modern software developers. Find out what makes a good test, why programmers should be more interested in failure than success, and how to measure and repeatedly run tests. In this course students will get an overview of both unit testing and TDD, why both are crucial for developers, how to set up a development environment for TDD, and go into detail with the pytest unit-testing framework. In addition, students will learn best practices and develop test cases in order to master TDD in Python.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 138 Object Oriented Programming (Python)

CLD 143 Web Application Development I (HTML/CSS)

Description CSS is a stylesheet language that allows you to control the appearance of your webpages, and HTML is the programming language that powers the web. Like any language, once you master it, you can begin to create your own content, whether that's simple websites or complex web applications. In this hands-on course, we will take an in-depth look at the syntax of HTML and best practices for writing with CSS and JavaScript to create rich, engaging user experiences. Plus, at the end of the course, you'll walk away with an actual project—an online résumé page.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 126 Test-Driven Development (JavaScript) or
Prerequisite	CLD 122 Introduction to Web Development

CLD 147 Website Production & Management (Word Press)

Description This course is designed to teach students the necessary skills to build, customize, manage and promote a business website using the content management system WordPress. In this project-based course, students will apply classroom knowledge and skills to successfully launch a site on a live web server.

Total Credits 3

Total Hours 60

CLD 152 Web Application Development II (REACT)

Description React is a JavaScript library for building user interfaces to fetch rapidly changing data that needs to be recorded and is maintained by Facebook for the development of single-page or mobile applications. The effectiveness of React.js stands out. It relies on reusable components, not templates, for UI development, allowing developers to render views where data changes over time. React applications are more scalable, maintainable, and makes developers more efficient. In this hands-on course, you will learn React.js and grow your skills through several browser-based projects leading to the completion of several web applications.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 143 Web Application Development I (HTML/CSS)

CLD 153 Multi-Cloud Administration

Description Cloud administrators must have an understanding of cloud services and architecture, as well as the top cloud platforms and tools. In this hands-on course, students will explore the top cloud platforms, AWS, Azure, and Google Cloud, as well as best practices in cloud security, operations, and services in order to obtain the skills needed to become a successful multi-cloud administrator.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 118 Cloud Fundamentals

CLD 156 Advanced Web Development (PHP)

Description This course is designed to provide students with advanced skills in the area of Web Development. In this hands-on class students will have the opportunity to apply HTLM5, CSS3, and jQuery with PHP concepts to lab projects. Topics will include PHP programming, basic database functionality, and building dynamic applications.

Total Credits 3

Total Hours 60

CLD 158 Multi-Cloud Development Services

Description Cloud computing impacts all careers, and an awareness of the opportunities associated with this emerging field is critical. Developers need to understand what it means to develop on and migrate to the cloud—and comprehend the overall landscape before diving into the platform. In this hands-on course, you will get a high-level overview just for developers, focusing on the features and services in a multi-cloud development environment using Google Cloud, Amazon Web Services, and Microsoft Azure.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 121 Object- Oriented Programming(JavaScript) or
Prerequisite	CLD 129 Programming Fundamentals

CLD 166 Cloud Application Development I (REACT on AWS)

Description Traditionally, companies have built and deployed web applications where they have some degree of control typically running on a server and are responsible for provisioning and managing the resources for it. The issues associated with this process, including server uptime, maintenance costs, managing security, and scalability is driving the realization that it is more competitive to run applications on the cloud. In this hands-on course, designed for developers that would like to build full-stack applications on Amazon Web Services, students will make a full-stack React application by creating a note-taking app from scratch. By guiding students, step-by-step through both the frontend and the backend, students will cover all the different aspects of building their first full-stack React app on the cloud.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 152 Web Application Development - II
Prerequisite	CLD 118 Cloud Fundamentals

CLD 168 AWS Cloud Practitioner

Description To date, when it comes to market share Amazon Web Services currently holds 47.8%, followed by Microsoft Azure at 15.5%, Alibaba Cloud at 7.7%, Google at 4%, and IMB at 1.8%. Get up to speed with one of the most popular and powerful cloud solutions on the market—Amazon Web Services (AWS). In this hands-on course, students will deepen their understanding of Amazon Web Services (AWS) through enterprise security, high availability, controlling cost, and preparing an AWS solution.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 118 Cloud Fundamentals

CLD 169 Machine Learning and AI Foundations with Predictive Analytics

Description There is a lot to learn to stay on top of a rapidly expanding universe of AI and machine learning. In addition, predictive analytics is one of the richest disciplines within the realm of data science; together artificial intelligence, machine learning, and predictive analytics form a very lucrative skillset for an ever-increasing competitive market. In this hands-on course, students will be exposed to a healthy range of topics to learn and advance their skillset in AI, ML, and data science. In addition, students will learn the tools and techniques for using data to predict future outcomes in order to get up to date with the latest advancements.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 138 Object-Oriented Programming (Python)

CLD 170 Cloud Application Development II (Serverless REACT on AWS)

Description Traditionally companies have built and deployed web applications where they have some degree of control typically running on a server and are responsible for provisioning and managing the resources for it. There are a few issues with this be it server uptime, maintenance costs, managing security, and scalability. It is far more competitive now to run applications on the cloud. Serverless computing (or serverless for short), is an execution model where the cloud provider (AWS, Azure, or Google Cloud) is responsible for executing a piece of code by dynamically allocating the resources. And only charging for the amount of resources used to run the code. The code that is sent to the cloud provider for execution is usually in the form of a function. Hence serverless is sometimes referred to as "Functions as a Service" or "FaaS". This hands-on course is meant for developers that would like to build full-stack serverless applications. By guiding students step-by-step through both the frontend and the backend they will cover all the different aspects of building their first full automated full-stack serverless React app on the cloud.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 166 Cloud Application Development I

CLD 174 Cloud Capstone

Description In this course students, will have the opportunity to link classroom/lab theory with a capstone learning opportunity. Through hands on application, reflection and evaluations, students will demonstrate integrated knowledge and growth in the field of information technology. Students will produce a critical reflection on their capstone experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 90

CLD 175 Information Technology Internship

Description In this course, students will have the opportunity to link classroom/lab theory with an experimental learning opportunity. Through direct observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and customers, how these relate to their program of study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

CLD 177 AWS Solutions Architect Associate

Description AWS certification is one of the most in-demand in the market, as it allows students to demonstrate proficiency in working with AWS cloud services. This hands-on course provides IT professionals who have an existing foundational knowledge of the AWS platform to learn the skills they need to prepare for the AWS Certified Solutions Architect (Associate) exam. By completing this course students will be thoroughly prepared to lock down their AWS skills for the AWS Certified Solutions Architect – Associate (SAA-C01) exam.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 168 AWS Cloud Practitioner

CLD 182 Microsoft Azure Administrator

Description Microsoft Azure is one of the leading enterprise-grade cloud computing platforms. In this hands-on course, students will be introduced to cloud computing focusing on various Azure technologies designed to support and protect companies at scale. As a more efficient alternative to traditional on-premise IT infrastructure, through this course, students will learn how to build a base of operations with Azure resource groups, configure networking, provision storage, manage active directory, implement security, govern identity and access management, and much more.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 153 Multi-Cloud Administration

CLD 185 Virtual Private Cloud Administration

Description Most leading private clouds provide similar features. So, how can IT professionals select the right solution with intent to scale for an organization? Through this hands-on course, students will examine industry-leading private cloud platforms and compare the services offered. Learn the fundamentals of cloud computing using a private cloud, consider reasons why you might choose a private cloud

solution for a business, and discover the features and services offered by several providers—from security to integration and compatibility features.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 153 Multi-Cloud Administration

CLD 187 Cloud Native Infrastructure (Kubernetes)

Description Container technology caught the public's attention with the introduction of Docker in 2013. The efficiency and cost benefits containerization can offer quickly made it one of the hottest topics in cloud computing. Shortly after Dockers' release, there has been a flood of new container management platforms, aiming to reduce the complexity of managing containerized applications. One of these platforms, the open-source project Kubernetes created by Google in 2015, is by now the de facto standard for container management. In this hands-on course, students will learn the ins and outs of Kubernetes, how it automates deploying, scaling and managing containerized applications on a group (cluster) of (bare metal or virtual) servers.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 153 Multi-Cloud Administration

CLD 188 Cloud Data and DevOps Specialist (AWS)

Description Amazon Web Services (AWS) is one of the most widely used cloud platforms and the go-to for many organizations looking to reduce costs by adopting a cloud infrastructure strategy. In this hands-on course, students will gain a comprehensive, cohesive skill for data admins, engineers, and DevOps specialists who will use AWS with data science and business analytics teams. Topics include cloud concepts, best practices, resilient infrastructure, elasticity, automation, cost optimization, server-based architectures, data science, metrics, and much more.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 118 Cloud Fundamentals

CLD 191 Microsoft Enterprise O365 Administration

Description Microsoft 365 offers enterprises a complete business solution around cloud-based office services, applications, Windows 10, and mobility and security services. In this hands-on course, students will dive into each Microsoft 365 product, providing IT professionals with the guidance they need to successfully implement and manage solutions for the modern workplace.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 153 Multi-Cloud Administration

CLD 193 Cloud DevOps Engineer I

Description DevOps is not a framework or a workflow. It's a culture that is overtaking the business world. DevOps ensures collaboration and communication between software engineers (Dev) and IT operations (Ops). With DevOps, changes make it to production faster, resources are easier to share, and large-scale systems are easier to manage and maintain. In this part-one course, students will learn a holistic overview of the DevOps movement, focusing on the core value of CAMS (culture, automation, measurement, and sharing) in addition to both agile and lean project management principles and how old-school principles like ITIL, ITSM, and SDLC fit within DevOps.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CLD 168 AWS Cloud Practitioner
Prerequisite	CLD 188 Cloud Data and DevOps Specialist (AWS)

CLD 196 Cloud DevOps Engineer II

Description DevOps is not a framework or a workflow. It's a culture that is overtaking the business world. DevOps ensures collaboration and communication between software engineers (Dev) and IT operations (Ops). With DevOps, changes make it to production faster, resources are easier to share, and large-scale systems are

easier to manage and maintain. In this part-two course, students will learn the various methodologies and tools an organization can adopt to transition into DevOps, including infrastructure automation, software version control, container management via Kubernetes, and much more.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CLD 193 Cloud DevOps Engineer I

CMA 119 Medication Aide

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

Total Credits 5

Total Hours 80

CNA 101 Certified Nurse Aide

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

Total Credits 5

Total Hours 120

CNU 010 Certified Nurse Aide Update

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

Total Credits 1

Total Hours 12

Pre/Corequisites

Prerequisite	GRA 101 Certified Nurse Aide

Communication Elective

Description This course is the placeholder for the communication elective. Students may enroll in the following courses to fulfill the communication elective: SPH101 Public Speaking or SPH 111 Interpersonal Communication.

Total Credits 3

Total Hours 45

CPR 001 CPR for Healthcare Providers

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

Total Credits 1

Total Hours 15

CRJ 101 Introduction to Criminal Justice

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

Total Credits 3

Total Hours 45

CRJ 105 Criminal Investigation

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CRJ 101 Introduction to Criminal Justice
Prerequisite	CRJ 110 Criminal Law

CRJ 110 Criminal Law

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

Total Credits 3

Total Hours 45

CRJ 115 Agency Administration

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

Total Credits 3

Total Hours 45

CRJ 120 Juvenile Delinquency and Justice

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

Total Credits 3

Total Hours 45

CRJ 125 Law Enforcement Operations and Procedures

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CRJ 101 Introduction to Criminal Justice
Prerequisite	CRJ 110 Criminal Law

CRJ 130 Criminal Procedures

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

Total Credits 3

Total Hours 45

CRJ 135 Criminal Justice Interview and Report Writing

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

Total Credits 3

Total Hours 45

CRJ 140 Professional Responsibility in Criminal Justice

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

Total Credits 3

Total Hours 45

CRJ 145 Corrections

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

Total Credits 3

Total Hours 45

CRJ 155 Policing Diverse Cultures

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite CRJ 101 Introduction to Criminal Justice

CRJ 160 Internship in Criminal Justice

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	CRJ 101 Introduction to Criminal Justice
Prerequisite	CRJ 125 Law Enforcement Operations and Procedures
Prerequisite	CRJ 135 Criminal Justice Interview and Report Writing
Prerequisite	CRJ 140 Professional Responsibility in Criminal Justice

CRJ 180 KLETC or Equivalent Law Enforcement Academy Training

Description This course provides credit for the training required for certified law enforcement officers in the state of Kansas. This credit is awarded through the completion of the Kansas Law Enforcement Training Center or other appropriate Law Enforcement Academy.

Total Credits 12

Total Hours 540

CUL 105 Culinary Fundamentals

Description The Culinary Fundamentals course offers an overview of rudimentary cooking skills and techniques as well as basic knife skills. Students will experience instructional demonstrations and gain experience building their skills (roast, sauté, sear, pan fry, boil, simmer, braise, blanche, grill, broil) with a variety of ingredients (proteins, starches and vegetables). Additional topics and instruction in this course include sauces, plate presentation and garnishes. Culinary vocabulary is introduced in this course and carried throughout the program.

Total Credits 3

Total Hours 75

Pre/Corequisites

Corequisite	HEM 105 Sanitation and Safety

CUL 110 Introduction to Gastronomy & Sustainability

Description The Introduction to Gastronomy and Sustainability course introduces students to a number of basic scientific principles underpinning the methodology of cooking, food preparation and the enjoyment of food. Students will gain knowledge of the

consumption of cooked food, the physiological and evolutionary implication of the senses, geographic and cultural influences on food, and the rationale behind food preparation. Topics and skills include an understanding of the coupling of senses to improve sense stimulation; altering flavor by chemical means; and modification of the coloration to improve the appearance of dishes.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite	HEM 105 Sanitation and Safety
Corequisite	ENG 101 Composition I

CUL 115 Culinary Nutrition

Description The Culinary Nutrition course introduces the roles of proteins, carbohydrates, fats and the process of metabolism in the human body. The students will be given opportunities to understand the benefits and limitations of specific dietary protocols. Students will build their skills in adapting recipes from traditional diets to meet therapeutic protocols. These protocols are the industry standard for specific dietary needs and students will learn to identify and use the therapeutic ingredients. Instructional demonstrations will include scratch recipes and information related to culinary innovation. The goal of the course is for students to understand how one's diet influences their holistic lifestyle.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 105 Culinary Fundamentals

CUL 120 Modern Banquet Cookery

Description The Modern Banquet Cookery course provides best practices and instructional strategies for the industry standard in executing banquets and catering events. This course focuses on maintaining food quality and is based in foundational cooking methodology.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 105 Culinary Fundamentals

CUL 125 Baking & Pastry Skill Development

Description The Baking and Pastry Skill Development course provides an introduction to basic baking and pastry skills including yeast breads, pastry doughs, quick breads, savory items, cookies, pies and cakes, frozen desserts, custards, soufflés, and chocolates, desserts plating techniques and garnishes. The course focuses on sustainability and the use of seasonal ingredients.

Total Credits 3

Total Hours 75

Pre/Corequisites

Corequisite	HEM 105 Sanitation and Safety

CUL 130 Culinary Innovation & Sustainability

Description The Culinary Innovation and Sustainability Course provides a strong focus on customer service. Instruction is structured using "Design Thinking" within the context of a social, environmental, fiscal and personal sustainability with particular emphasis given to the "citizen chef".

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 120 Modern Banquet Cookery

CUL 133 Bistro Practicum I

Description Immerse yourself in the dynamic world of culinary entrepreneurship in this practicum class. Under faculty guidance, students will rotate through diverse roles, managing all aspects of a student-run restaurant. This hands-on experience enhances culinary skills, fosters teamwork, and provides insights into real-world restaurant operations. From crafting menus to food preparation and customer service, students gain practical expertise while refining communication, problem-solving, and time management abilities. This course equips aspiring culinary professionals with the skills and confidence for success in the restaurant industry.

Total Credits 3

Total Hours 90

CUL 135 Cuisines and Cultures of the United States

Description The Cuisines and Cultures of the United States course offers the students instruction and experiences preparing, tasting, serving and evaluating traditional and regional dishes of the Unites States of America. Topics include exploring the flavor profiles, preparations and techniques representative of the cuisines from New England, the Mid-Atlantic, the South, the Floribbean, Cajun / Creole, the Midwest, Texas, the Southwest, the Rocky Mountains, California, Pacific Northwest, Alaska and Hawaii.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL 120 Modern Banquet Cookery

CUL 137 Bistro Practicum II

Description Delve deeper into the art of culinary creation in this advanced practicum. Building upon foundational skills, students will embark on a journey of creative menu innovation. Guided by experienced faculty, participants will curate unique dining experiences, experimenting with flavors, techniques, and presentation. Through this hands-on exploration, students will refine their culinary voice, mastering the balance between tradition and innovation. Engaging in specialized roles within the student-run restaurant, they will further elevate their teamwork, leadership, and critical thinking abilities. This course is tailored for those aspiring to lead culinary trends and excel in the evolving gastronomic landscape. This course is designed as the second Bistro Practicum course in a series of four.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite CUL133 Bistro Practicum

CUL 140 Global Cuisines and Cultures

Description The Global Cuisines and Cultures course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and regional dishes of the Caribbean, Central and South America, Africa and Persia. Topics include exploring the flavor profiles, preparations and techniques representative of

the cuisines from the Caribbean, Mexico, Brazil, Argentina, Chile, South Africa, Ethiopia, The DRC, Lebanon, The Arab Emirates and Iran.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL120 Modern Banquet Cookery

CUL 143 Bistro Practicum III

Description Delve deeper into the art of culinary creation in this advanced practicum. Building upon foundational skills, students will embark on a journey of creative menu innovation. Guided by experienced faculty, participants will curate unique dining experiences, experimenting with flavors, techniques, and presentation. Through this hands-on exploration, students will refine their culinary voice, mastering the balance between tradition and innovation. Engaging in specialized roles within the student-run restaurant, they will further elevate their teamwork, leadership, and critical thinking abilities. This course is tailored for those aspiring to lead culinary trends and excel in the evolving gastronomic landscape. This course is designed as the third Bistro Practicum course in a series of four.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite CUL 137 Bistro Practicum II

CUL 145 Cuisines and Cultures of the Mediterranean

Description The Cuisines and Cultures of the Mediterranean course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and regional dishes of the Mediterranean. Topics include exploring the flavor profiles, preparations and techniques representative of the cuisines from North, Central and South Italy, Spain, Portugal, Greece, the Middle East and North Africa.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL 120 Modern Banquet Cookery

CUL 147 Bistro Practicum IV

Description Delve deeper into the art of culinary creation in this advanced practicum. Building upon foundational skills, students will embark on a journey of creative menu innovation. Guided by experienced faculty, participants will curate unique dining experiences, experimenting with flavors, techniques, and presentation. Through this hands-on exploration, students will refine their culinary voice, mastering the balance between tradition and innovation. Engaging in specialized roles within the student-run restaurant, they will further elevate their teamwork, leadership, and critical thinking abilities. This course is tailored for those aspiring to lead culinary trends and excel in the evolving gastronomic landscape. This course is designed as the fourth Bistro Practicum course in a series of four.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite CUL 143 Bistro Practicum III

CUL 150 Cuisines and Cultures of Northern Europe

Description The Cuisines and Cultures of Northern Europe course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and regional dishes of Northern Europe. Topics include exploring the flavor profiles, preparations and techniques representative of the cuisines from France: Provence, Alsace, Bordeaux, Burgundy and Paris; Germany, Austria, Switzerland, Scandinavia, Great Britain, Eastern Europe.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL 120 Modern Banquet Cookery

CUL 155 Cuisines and Cultures of Asia

Description The Cuisines and Cultures of Asia course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and regional dishes of the Asia. Topics include exploring the flavor profiles, preparations and techniques representative of the cuisines from China, Korea, Japan, Vietnam, Thailand, and India.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 120 Modern Banquet Cookery

CUL 160 Garde Manger

Description "Garde Manger" is the name of the discipline, the position in the kitchen, and the physical environment in the kitchen in which it is performed. In the kitchen, it is a cool, well-ventilated area where cold dishes (such as salads, hors d'oeuvres, appetizers, canapes, pates and terrines) are prepared and other foods are stored under refrigeration. The person in charge of this area is known as the chef garde manager or the pantry chef. This course provides students with a basic understanding and instruction on preparatory skills which produce cold soups, sauces, salads, sandwiches, cured and smoked foods; sausages, terrines, pates, galantines and roulades; cheese, appetizers and hors d'oeuvre; condiments, crackers and pickles as well as buffet development. Additional topics in this course include buffet plating and presentation as well as cheese and charcuterie board design.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 110 Introduction to Gastronomy and Sustainability
Prerequisite	CUL 120 Modern Banquet Cookery

CUL 165 Culinary Arts Internship

Description This course offers professional experience in the context of an educationally focused internship. Students will be placed in a culinary industry setting for the completion of this course.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 120 Modern Banquet Cookery

CUL 170 Advanced Baking: Chocolate and Confectionary Techniques

Description The Advanced Baking: Chocolate and Confectionary Techniques course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and contemporary chocolates, confectionary items, cookies, bon bons, petite fours and macaroons. Course activities include instruction that develops a working knowledge of ingredients, flavor profiles, preparations and techniques representative of chocolates and confectionary items of France, Italy, Switzerland and the United States.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL 125 Baking and Pastry Skill Development

CUL 175 Advanced Baking: Cakes and Desserts

Description The Advanced Baking: Cakes and Desserts course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and contemporary quick breads and cakes, custards, creams, mousses and soufflés, icings, glazes, sauces, frozen desserts and fruit desserts. Course activities include instruction that develops a working knowledge of ingredients, flavor profiles, preparations and techniques representative of cakes and desserts of France, Italy and Great Britain and the United States.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CUL 125 Baking and Pastry Skill Development

CUL 180 Advanced Baking: Breads and Rolls

Description The Advanced Baking: Breads and Rolls course offers the student instruction and experiences preparing, tasting, serving and evaluating traditional and contemporary breads and pastries. Course activities include instruction that develops a working knowledge of ingredients, flavor profiles, preparations and techniques representative of breads and pastries of France, Italy and Great Britain and the United States.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CUL 125 Baking and Pastry Skill Development

CWG 103 Blueprint Reading for Welders

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	CWG 105 Welding Safety & Orientation

CWG 105 Welding Safety & Orientation

Description The primary purpose of this course is to introduce and familiarize new students with the use and safety precautions to consider when using welding related equipment. The equipment in WSU Tech's welding lab compares to what is currently used by Industry. This course will enable a person who has never before used the equipment to set up and use it in an appropriate manner at an entry level and, doing so, meet safety standards. A separate safety exam will be given at the end of demonstrating the use and hazards it presents. Before students can use any piece of equipment on their own, they have to attain a score of 100% on the safety exam. Equipment in the lab that is excluded from the safety training may only be used under direct supervision of an instructor who is within an arm's length away.

Total Credits 1

Total Hours 15

CWG 110 Welding Applications

Description In this course students will learn the basic elements of SMAW, GMAW and GTAW. Additionally, students learn the equipment, processes and skills associated with welding cutting equipment.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite	CWG 105 Welding Safety & Orientation

CWG 115 SMAW

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	CWG 105 Welding Safety & Orientation

CWG 116 SMAW II

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

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite	CWG 115 SMAW

CWG 120 GMAW

Description Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the

safe and correct set up of the GMAW workstation; correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; perform surfacing welds with selected electrodes in the flat position; perform surfacing welds with selected electrodes in the horizontal position; produce basic GMAW welds on selected weld joints; and conduct visual inspection of GMAW welds.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CWG 105 Welding Safety & Orientation

Prerequisite AVC 110 Safety/OSHA 10

CWG 121 GMAW II

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

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite CWG 120 GMAW

CWG 125 GTAW

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite CWG 105 Welding Safety & Orientation

CWG 126 GTAW II

Description Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW); demonstrate the safe and correct set up of the (GTAW) workstation; correlate (GTAW) electrode and fill metals classifications with base metals and joint criteria; demonstrate proper tungsten electrode and filler metal selection used based on metal types and thicknesses. Students will build t-joint and lap-joints with selected electrodes and filler metal in the flat position; build t-joint and lap-joints with selected tungsten electrodes and filler metal in the horizontal position; perform basic (GTAW) welds. Students will perform welds in the vertical (3) and overhead (4) positions; this will include but not be limited to fillet welds and groove welds. Students will also be introduced to aluminum and stainless steel.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite CWG 125 GTAW

CWG 130 Robotic Welding

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

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite CWG 121 GMAW II

CWG 135 Measurement and Specification

Description This course introduces students to the essential skills for using precision measurement tools in the welding field. Students will learn to safely operate and maintain tools such as calipers, tapes, and micrometers, ensuring accurate

measurements. Practical applications will prepare students for industry certification, focusing on the use of these tools in real-world welding scenarios.

Total Credits	1
Total Hours	15

CWG 141 Oxy Acetylene Welding & Cutting

Description	The Oxy-Acetylene Welding and Cutting Course is designed to introduce students to the competencies required to safely and successfully demonstrate oxy-acetylene techniques in the classroom, lab and shop setting.
Total Credits	2
Total Hours	45

Pre/Corequisites

Prerequisite	CWG 105 Welding Safety and Orientation
Prerequisite	AVC 110 Safety/OSHA 10

CWG 145 Fabrication & Design

Description	This course is designed to provide students with the opportunity to apply fabrication and design principles to student projects.
Total Credits	2
Total Hours	45

Pre/Corequisites

Prerequisite	CWG 103 Blueprint Reading for Welders
Prerequisite	CWG 120 GMAW
Prerequisite	CWG 141 Oxy Acetylene Welding & Cutting
Prerequisite	AVC 110 Safety/OSHA 10

CWG 149 Materials & Testing

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

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite CWG 105 Welding Safety & Orientation

CWG 155 Flux Cored Arc Welding

Description Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain Flux Cored Arc Welding process (FCAW); demonstrate the safe and correct set up of the FCAW workstation; correlate FCAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; perform surfacing welds with selected electrodes in the flat position; perform surfacing welds with selected electrodes in the horizontal position; produce basic FCAW welds on selected weld joints; and conduct visual inspection of FCAW welds.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite CWG 121 GMAW II

CWG 160 Welding Internship

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 4

Total Hours 180

CWG 242 SMAW D1.1 Qualification

Description 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. A destructive bend test is performed during the last week of this course.

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite CWG 116 SMAW II

CWG 243 GMAW D1.1 Qualification

Description Assist 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. A destructive bend test is performed during the last week of this course.

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite CWG 121 GMAW II

DMK 110 Introduction to Media Arts

Description Offers an introduction to media arts and the interconnectedness of audio, film, animation and gaming. Introduces fundamental concepts in analyzing and interpreting popular media delivery. The course will employ lectures, guest speakers, collaborative projects and experimental modes of learning. Content will also cover resources available on campus and in the community. Written assignments will encourage students to think about how various media and entertainment influences culture and their response to these influences. Attendance at outside events, lectures and festivals is required.

Total Credits 3

Total Hours 45

DMK 120 Basic Digital Editing

Description Introduction to skills, principles and ethics of using audio, images and video to tell stories via Internet-based media.

Total Credits 3

Total Hours 60

DMK 125 Community Building and Management

Description Students will be equipped with the knowledge and skills needed to create and support an online community that drives awareness, interest, and conversion for brands.

Total Credits 3

Total Hours 75

DMK 135 Social Media Marketing and Management

Description Students will be equipped with the relevant knowledge, perspective and practical skills required to develop marketing strategies that leverage the opportunities inherent in social media for achieving business and marketing goals.

Total Credits 3

Total Hours 75

DMK 140 Introduction to Audio/Visual Production

Description This course will provide students with the skills associated with production and direction of video and audio programs. Hands-on use of standard audio and video production equipment to learn the most current and effective techniques will be integral to the course.

Total Credits 3

Total Hours 75

DMK 150 Search Engine Optimization & Marketing

Description This course is designed to introduce the student to the core concepts of Search Engine Optimization (SEO) and Search Engine Marketing (SEM). Students will

learn to ensure their site is digestible by Google and other users resulting in better search engine rankings.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite DMK 135 Social Media Marketing and Management

DMK 155 Photography Fundamentals

Description This photography course aims to provide students with a comprehensive understanding of photography's fundamental principles and techniques. Through practical hands-on experience, students will develop the skills necessary to create visually compelling and technically proficient photographs.

Total Credits 2

Total Hours 45

DMK 160 Introduction to Analytics

Description This course is designed to introduce students to the core concepts of digital analytics. The course will explore the effectiveness of marketing campaigns and how to optimize results. This course will prepare students to take the Google Analytics Certification.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite DMK 150 Search Engine Optimization & Marketing

DMK 163 Introduction to Digital Advertising

Description Introduction to the skills, principles, and design of digital advertising that drives business value and engages with online audiences.

Total Credits 3

Total Hours 75

DMK 170 Digital Marketing Capstone

Description In this project-based course, students will apply the skills and knowledge acquired throughout the Digital Marketing program to a real-world project. In partnership with a local non-profit organization, students will create a digital marketing strategy designed to meet the customer needs. Students will produce a critical reflection on their capstone experience demonstrating how they have addressed specific learning goals. A successful project will include a project presentation to representatives of the non – profit organization, faculty and fellow students.

Total Credits 4

Total Hours 180

DMK 175 Digital Marketing Internship

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 4

Total Hours 180

ECO 105 Principles of Macroeconomics

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ED Ready GMID - score of 39 or higher

ECO 110 Principles of Microeconomics

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite EdReady GMID - Score of 39 or higher

EDU 120 Introduction to Teaching

Description This is a preparation course introducing students to the field of teaching. Topics include current learning standards, lesson plan components, the realities of teaching as a career, certification requirements, professional expectations, and an introduction to teaching strategies. This course provides students with the opportunity to explore the field of teaching, reflect on their interest in education, create and present an instructional lesson, and develop connections with other future educators.

Total Credits 3

Total Hours 45

EDU 140 Children's Literature

Description This course introduces students to the literary and visual styles in Children’s Literature. Students will understand the role of literature in instruction including meeting state standards and reading development.

Total Credits 3

Total Hours 45

EDU 160 Educational Technology

Description This course will introduce students to a variety of technology used in educational settings to enhance instruction. Students will learn how to integrate technology and assist students and parents with technology. The importance of cybersecurity and online safety will be discussed.

Total Credits 3

Total Hours 45

EDU 180 Educating Exceptional Students

Description This course introduces students to the strengths and needs of learners with exceptional needs, including those with physical and cognitive disabilities and those who exhibit gifts and talents. Students will explore the effects of cultural differences, human development, and education policy.

Total Credits 3

Total Hours 45

EDU 200 Classroom Management

Description This course will introduce students to best practices in classroom management and assessment. Topics include time management, organizing materials and classroom space, and managing student behavior.

Total Credits 3

Total Hours 45

EDU 210 Assessing Student Learning

Description This course will examine approaches to assessment and evaluation of student learning. Students will be introduced to the basic concepts of standardized and non-standardized assessment including formative and curriculum-based assessments.

Total Credits 3

Total Hours 45

EDU 220 Field Experience

Description This course 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. Students will reflect upon topics and issues such as diversity, effective teaching strategies, and educational structures as they are experienced in the PreK-12 classroom.

Total Credits 1

Total Hours 25

Pre/Corequisites

Prerequisite EDU 245 Foundations In Early Literacy

EDU 235 Foundations of Writing

Description Introduces students to a multisensory approach to teaching the basic elements of English grammar to children in grades 2-12. This course will introduce and reinforce the eight basic parts of speech utilizing a color-coding system and strategies that promote multisensory teaching techniques and activities. This includes instruction on how to teach basic sentence and paragraph structure transitioning into expanded sentence and paragraph structure.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite EDU 245 Foundations in Early Literacy

EDU 245 Foundations in Early Literacy

Description This is a preparation course introducing students to research related to dyslexia and the importance of phonological awareness. Phonological awareness is a necessary foundational skill for reading, writing, and spelling. Research tells us phonological awareness skills can be taught through direct instruction and practice. Discover the principles of planning strategic lessons to address these critical skills. Students will be taught through lecture, modeling, and hands on practice.

Total Credits 3

Total Hours 45

ELE 110 Print Reading

Description Students learn to read specification manuals and prints as applied to residential, commercial, and industrial buildings.

Total Credits 2

Total Hours 30

ELE 120 AC/DC Circuits

Description AC/DC circuits address the basics of direct and alternating current circuits.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	SAF 135 Safety/OSHA 30

ELE 130 Commercial Wiring I

Description An introductory course on commercial wiring methods that includes practical applications and hands-on experience in implementing code requirements.

Total Credits 4

Total Hours 60

Pre/Corequisites

Corequisite	ELE 132 Commercial Wiring Lab
Prerequisite	ELE 120 AC/DC Circuits

ELE 132 Commercial Wiring Lab

Description This course focuses on electrical installation techniques, safety procedures, and compliance with the National Electrical Code (NEC) and NFPA 70E requirements. Students will gain hands-on experience in performing conduit bending, conductor installation, and applying NFPA 70E guidelines. This course serves as the lab component for ELE 130 that covers feeder/branch circuit wiring methods, raceway and box fill calculations, distribution equipment components, grounding and bonding requirements, and service calculations per NEC.

Total Credits 4

Total Hours 120

Pre/Corequisites

Corequisite	ELE 130 Commercial Wiring I
Prerequisite	ELE 120 AC/DC Circuits

ELE 135 Low Voltage Wiring

Description This course provides comprehensive training in low voltage wiring, focusing on the installation and maintenance of various subsystems and equipment commonly found in commercial and residential settings. Participants will gain a solid understanding of the key components and techniques involved in low voltage wiring, including identification, termination, installation, grounding, and testing.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	ELE 120 AC/DC Circuits

ELE 140 Motor Controls

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

Total Credits 2

Total Hours 30

ELE 150 National Electrical Code I

Description An introductory course on the use of and interpretation of the current national electric code.

Total Credits 4

Total Hours 60

ELE 160 National Electrical Code II

Description A continuation of the National Electrical Code I course on the use and interpretation of the current national electric code .

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite ELE 150 National Code I

ELE 170 Programmable Logic Controllers

Description This course on Programmable Logic Controllers (PLCs), focuses on the installation, setup, programming, and operation of PLC hardware and software. Participants will gain a solid understanding of PLC functions, terminology, safety procedures, and practical skills required to perform basic programming and connect field devices.

Total Credits 2

Total Hours 30

ELE 180 Residential Wiring I

Description An introductory course on residential wiring methods that includes practical applications and hands-on experience in implementing code requirements.

Total Credits 4

Total Hours 60

Pre/Corequisites

Corequisite ELE 182Residential Wiring Lab

Prerequisite ELE 120 AC/DC Circuits

ELE 182 Residential Wiring Lab

Description This course provides foundational knowledge and practical skills in electrical installation techniques for residential settings. Students will learn to install branch circuits, residential services, luminaires, switches, receptacles, and various protective devices in accordance with the National Electrical Code (NEC) requirements. This course serves as the lab component for ELE 180 that covers the identification and calculation of branch circuits and residential services, branch circuit requirements for appliances, grounding and bonding requirements, and the installation of overcurrent, short circuit, and ground fault protection devices.

Total Credits 4

Total Hours 120

Pre/Corequisites

Corequisite	ELE 180 Residential Wiring I
Prerequisite	ELE 120 AC/DC Circuits

ELE 185 Solar and Wind Power Generation

Description This course provides a comprehensive overview of solar and wind energy, including their definitions, harnessing methods, energy generation processes, advantages and disadvantages, historical context, current status, and future prospects. Students will also explore various applications of solar and wind energy in different industries and sectors.

Total Credits 3

Total Hours 45

ELE 190 Fire Alarm, Emergency, and Health Care Systems

Description This comprehensive course provides in-depth knowledge of electrical systems in health care facilities, focusing on the power requirements, distribution circuits, emergency and standby systems, battery and UPS systems. Additionally, the course provides students with in-depth knowledge of fire alarm systems. Participants will gain a thorough understanding of the different types of health care facilities, wiring methods, maintenance requirements, relevant codes and standards, and installation guidelines for fire alarm systems.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ELE 135 Low Voltage Wiring

EMS 103 EMT 1

Description The EMT 1 course provides students with the academic and professional knowledge and skills to provide emergency medical care and transportation for critical and emergent patients who access the emergency medical systems. The student will learn about an EMS system, medical and legal considerations, and documentation. The students will learn medical terminology, anatomy, and physiology as it relates to a medical emergency patient. Upon completion of this course, students will possess the knowledge and skills necessary to provide patient care and transportation of medical emergency patients. The student will be prepared to function as part of a comprehensive EMS response team, under medical oversight. Students in the EMT course will apply basic medical interventions with equipment typically found on an ambulance in order to act as a link from the scene of the emergency to the emergency health care facility.

Total Credits 6

Total Hours 105

Pre/Corequisites

Corequisite CPR 001 CPR for Healthcare Providers

EMS 104 EMT 2

Description The EMT 2 course provides students with the academic and professional knowledge and skills to provide emergency medical care and transportation for critical and emergent patients who access the emergency medical systems. Upon completion of this course, students will possess the knowledge and skills necessary to provide patient care and transportation for trauma and special populations. The student will be prepared to function as part of a comprehensive EMS response team, under medical oversight. Students in the EMT course will apply basic medical interventions with trauma equipment typically found on an ambulance in order to act as a link from the scene of the emergency to the emergency health care facility. EMT 2 students will learn about EMS system operations including HazMat and Mass Casualty Incidents. EMT 1 and EMT 2 prepare students for EMT National Registry Exam and covers all EMT Education Standards for EMT – level Instruction.

Total Credits 6

Total Hours 120

Pre/Corequisites

Prerequisite EMS 103 EMS 1

EMS 105 Emergency Medical Technician

Description The EMT course provides students with the academic and professional knowledge and skills to provide emergency medical care and transportation for critical and emergent patients who access the emergency medical systems. Upon completion of this course, students will possess the knowledge and skills necessary to provide patient care and transportation. The student will be prepared to function as part of a comprehensive EMS response team, under medical oversight. Students in the EMT course will apply basic medical interventions with equipment typically found on an ambulance in order to act as a link from the scene of the emergency to the emergency health care facility. This course prepares students for EMT National Registry Exam and covers all EMT Education Standards for EMT – level Instruction.

Total Credits 12

Total Hours 225

Pre/Corequisites

Corequisite CPR 001 CPR for Healthcare Providers

EMS 115 Tactical Medicine

Description This course will cover tactical emergency medicine, the practice of emergency medicine in the field during disasters, police or military conflicts, mass causality events, and community incidents. Key topics covered include hostage survival, insertion and extraction techniques, continuum of force, medical support, planning and triage, medical evaluation in the incident zone, care in custody, medical control of incident site, decontamination, community communication, and more.

Total Credits 3

Total Hours 45

EMS 120 Work Ethic

Description This course explores the essential components of a strong work ethic in the healthcare industry, focusing on professionalism, accountability, and ethical behavior in patient care. Students will examine case studies and real-world scenarios to understand the importance of integrity, teamwork, and effective communication. The course prepares students to navigate the unique challenges of healthcare settings, fostering a commitment to high standards of practice and patient-centered care.

Total Credits 2

Total Hours 30

ENG 100 Composition I Lab

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	ENG 035 Pacer English
Corequisite	ENG 101 Composition I

ENG 101 Composition I

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	ENG 030 English

ENG 110 Introduction to Literature

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

Total Credits 3

Total Hours 45

ENG 120 Composition II

Description This course is designed to immerse students in the study and practice of persuasive and argumentative, report, and research writing emphasizing analysis and research and reading, interpreting, and evaluation of selected texts.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ENG 101 Composition I

ENT 110 Introduction to Entrepreneurship

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

Total Credits 3

Total Hours 45

ENT 115 Entrepreneurship II

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite ENT 110 Introduction to Entrepreneurship

EQP 121 Diesel Engine Repair

Description This course includes diesel engine theory, disassembly, assembly, troubleshooting, and testing of Diesel engines.

Total Credits 4

Total Hours 90

EQP 132 Fuel & Exhaust Systems

Description This course is designed to equip students with the essential skills and knowledge required to effectively maintain, diagnose, and repair modern fuel delivery and exhaust after treatment systems.

Total Credits 3

Total Hours 60

EQP 134 Machine Specific Systems

Description This course is designed to provide students with a comprehensive understanding of specialized equipment utilized across diverse industries. This course offers hands-on experience with machinery tailored to the unique needs of each student's intended field. Students will perform routine maintenance and service to their chosen equipment.

Total Credits 1

Total Hours 30

EQP 135 Mobile Equipment Diagnostics Test

Description This course covers the fundamentals of performing diagnostic tests utilizing computer systems on mobile equipment. Students will utilize CAN Bus information to make diagnostic decisions and perform any additional necessary diagnostic tests to determine origin of a failure.

Total Credits 3

Total Hours 60

EQP 180 Fluid Power

Description This course covers hydraulic and hydrostatic systems, to include theory, identification, and operation of the following subcomponents: Pumps, Motors, Control Valves, Cylinders, and Accumulators. Students will perform basic hydraulic system maintenance and repair.

Total Credits 4

Total Hours 90

EQP 206 Powertrain Systems

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: determine the general drive train diagnosis procedures; explore the fundamentals of clutch operation; explore the fundamentals of clutch removal, inspection and repair; determine the powerflow of the manual transmission and transaxle; perform fundamental manual transmission and transaxle inspection and repair according to service specifications; perform fundamental differential inspection and repair according to service specifications; perform fundamental diagnosis, inspection and replacement of drive axle shafts and supporting components; perform fundamental diagnosis, inspection, adjustment and repair of four- and all-wheel drive components; diagnose drive train issues; diagnose clutch concerns; perform the removal, inspection and/or repair of the clutch and its components; conduct a transmission and transaxle inspection and repair according to service specifications; conduct a differential inspection and repair according to service specifications; conduct the diagnosis, inspection and replacement of drive axle shafts and supporting components; conduct the diagnosis, inspection, adjustment and repair of four- and all-wheel drive components.

Total Credits 4

Total Hours 60

EQP 210 Dealership Fundamentals

Description In this course, students will learn the operations at dealership and service centers. Students will understand the importance of different departments and how the interrelate to performing quality repairs in a timely fashion. Students employed in the industry will learn about the history and core values of their employer. This course will also cover work ethics.

Total Credits 2

Total Hours 30

EQP 220 Advanced Fluid Power

Description This course provides an advanced level of understanding of hydraulic systems and their applications, components, and service. Students will perform necessary advanced level repairs in this course.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite EQP 180 Fluid Power

EQP 225 Control Panels and Data Links

Description This course provides a comprehensive overview of generator control panels and data link systems, focusing on both current and legacy models. Practical skills include I/O wiring, engine protective verification, and advanced programming techniques for multiple EMCP systems.

Total Credits 5

Total Hours 120

EQP 230 Automatic Transfer Switches

Description In this course, students will explore the function and operation of automatic transfer switches (ATS) within generator systems. Topics include the various types of ATS, control circuitry, and programming options, as well as open and closed transition modes. Hands-on exercises cover functional testing, troubleshooting, and maintenance, equipping students to ensure reliable power transfer in emergency situations

Total Credits 5

Total Hours 120

EQP 235 Voltage Regulation

Description This course covers the principles and mechanisms of voltage regulation in commercial generators. Students will examine analog and digital voltage regulators, learn to perform voltage adjustments, and troubleshoot common regulation issues. Emphasis is placed on understanding AVR systems, conducting routine maintenance, and applying safety measures for high-voltage work environments.

Total Credits 5

Total Hours 120

EQP 240 Generators & EPG Calculations

Description Students in this course will learn the fundamentals of electrical power generation (EPG) and the components of large commercial generators. Core topics include power calculations for sizing, efficiency assessment, and load management. Students will also gain practical skills in interpreting generator specifications, performing maintenance, and troubleshooting to ensure optimal power generation and fuel efficiency.

Total Credits 5

Total Hours 120

Pre/Corequisites

Prerequisite	EQP 121 Diesel Engine Repair
Prerequisite	TAS 124 Electrical I

FOL 101 Spanish I

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

Total Credits 5

Total Hours 75

FOL 110 Spanish II

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

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite FOL 101 Spanish I

GEO 101 Principles of Geography

Description This course is designed to provide the student with an introduction of how geography influences social, cultural, economic, political, and environmental systems. Students will gain an understanding of how modern technology and global human ecology shape our knowledge of land, environment, and culture.

Total Credits 3

Total Hours 45

HEM 105 Sanitation and Safety

Description In this course, students will study the basic principles of bacteriology, foodborne illness, sanitation, workplace safety, personal hygiene, food security, health regulations, and inspections. The course emphasizes the importance of sanitary equipment and facilities, and pest control. Students must complete the National Restaurant Association Educational Foundation certification exam to pass this course.

Total Credits 1

Total Hours 15

HEM 110 Hospitality Math

Description Reviews the fundamentals of mathematics, including calculating percent, ratios, decimals, fractions, weights and measures, and introductory algebra concepts. Emphasizes the application of mathematical fundamentals to a variety of culinary and hospitality uses. Provides instruction in equivalencies, recipe costing and conversion, calculating food and labor cost percentages, baker's percentages, yield conversions, and selling prices.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite Accuplacer Nex Gen Arithmetic NGAC score of 276

HEM 115 Introduction to the Hospitality Industry

Description In this course, students will gain knowledge and develop an appreciation of the multifaceted elements of hospitality management by exploring all aspects of the hospitality, tourism, and event management industries including hotels and lodging; food-service and restaurants; travel and tourism; transportation; meetings, conventions and expositions; leisure and recreation; and, special events. While the focus is on basic hospitality and management principles, this course also reflects the impact of current social, economic, technological, and political factors on operations in the field. Further, students are offered information on the array of careers available in the various segments of the hospitality industry.

Total Credits 3

Total Hours 45

HEM 120 Hospitality Service Techniques

Description Defines and describes points of service in restaurant and banquet functions. Discusses sales techniques, cash handling standards, methods of customer satisfaction, and other topics related to the smooth operation of any restaurant or catered event. The course includes hands-on experience at breakfast, lunch, and dinner in a full-service restaurant. Emphasizes proper service procedures, cost control, and efficient work methods.

Total Credits 3

Total Hours 75

HEM 125 Food & Beverage Management Fundamentals

Description Principal analysis of directing a food and beverage operation, with the examination of food and beverage in restaurant operations. Students will engage in theory and practices of service fundamentals pertaining to food and beverage management.

Total Credits 3

Total Hours 45

HEM 130 Introduction to Lodging Operations

Description The course provides students with an overview of the lodging industry and how its functions are organized and operated. Introduces each of the seven traditional disciplines: general management, hotel sales, financial control, room operations, food, and beverage operations, human resources, and physical plant maintenance. Emphasizes business ethics and effective communication.

Total Credits 2

Total Hours 30

HEM 135 Hospitality Human Resource Management

Description Introduces the functions of human resource management including, planning, communicating, recruiting, hiring, training, coaching, counseling, discipline, performance evaluation, termination, and labor relations. Emphasizes the legal issues related to managerial decisions, motivation and managing diversity.

Total Credits 3

Total Hours 45

HEM 140 Hospitality Financial Management

Description Provides an understanding of basic accounting concepts and procedures relevant to hotel and food service operations. Instructs students in recording transactions, understanding financial statements, managing inventory, payroll problems, occupancy issues and other special topics.

Total Credits 3

Total Hours 45

HEM 143 Introduction to Food Business Management

Description This course explores and develops techniques and procedures of management as they relate to commercial and institutional food and beverage facilities. Students will study functions of management, marketing, menu development, effective cost controls in purchasing, labor and service techniques. Students will create a business plan for a unique restaurant concept including menu development.

Total Credits 5

Total Hours 105

HEM 145 Fundamentals of Excellent Customer Service

Description This course is designed to prepare students for the professional world of customer service. Students in this course receive a solid knowledge base in the areas of exemplary customer service practices, customer service in the internet age and, business communications.

Total Credits 3

Total Hours 45

HEM 150 Food and Beverage Operations

Description Focuses on the management of food and beverage operations in hospitality establishments. Includes restaurant, banquets, room service, beverage operations, menu planning, and stewarding. This course prepares students to take the ServSafe Food Handlers Certification.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	HEM 105 Sanitation and Safety
Prerequisite	HEM 110 Hospitality Math
Prerequisite	HEM 115 Introduction to the Hospitality Industry
Prerequisite	HEM 120 Hospitality Service Techniques
Prerequisite	HEM 125 Food & Beverage Management Fundamentals
Prerequisite	HEM 130 Introduction to Lodging Operations
Prerequisite	HEM 135 Hospitality Human Resource Management
Prerequisite	HEM 140 Hospitality Financial Management
Prerequisite	HEM 145 Fundamentals of Excellent Customer Service

HEM 175 Event Catering Strategies

Description This course serves as an introduction to planning catering events, responsibilities of the caterer and the event planner as well as techniques for identifying equipment and space needs to facilitate the event.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	HEM 105 Sanitation and Safety
Prerequisite	HEM 110 Hospitality Math
Prerequisite	HEM 115 Introduction to the Hospitality Industry
Prerequisite	HEM 120 Hospitality Service Techniques
Prerequisite	HEM 125 Food & Beverage Management Fundamentals
Prerequisite	HEM 130 Introduction to Lodging Operations
Prerequisite	HEM 135 Hospitality Human Resource Management
Prerequisite	HEM 140 Hospitality Financial Management
Prerequisite	HEM 145 Fundamentals of Excellent Customer Service

HEM 205 Alcohol Beverage Law

Description This course will prepare students for bartending through the emphasis on ABC Laws, alcohol responsibilities, alcohol awareness, and bar setup. This course will prepare students to complete the ServSafe Alcohol certification.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	HEM 105 Sanitation and Safety
Prerequisite	HEM 115 Introduction to the Hospitality Industry

HEM 210 Beer

Description This course offers an in-depth exploration of beer, focusing on its rich history, diverse styles, brewing methods, and service techniques. Students will gain a foundational understanding of beer production, from ingredients and brewing processes to the complexities of flavor profiles and pairings. The course covers major beer styles, including lagers, ales, stouts, and wheat beers, with an emphasis on understanding the nuances of each. Students will also learn best practices for beer service, handling, and storage, along with techniques for properly tasting and evaluating different beers.

The course will introduce methods for home brewing, providing enthusiasts with the basic knowledge needed to begin crafting their own beer. As part of the curriculum, students will participate in beer tastings and analysis, gaining hands-on experience in distinguishing between flavors, aromas, and styles. Students must be at least 21 years of age to enroll in this course.

Total Credits 3

Total Hours 45

HEM 215 Food and Alcohol

Description In this course, students will explore the complexity of pairing food and different types of alcohol in today's culinary world. This course will explore the significance of food and drink by examining the fundamental concepts of history, tradition, and culture. Whether planning a large catered event, developing food and wine menus for restaurants or special events, understanding how to pair food with alcohol is an invaluable skill for hospitality professionals.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite HEM 205 Alcohol Beverage Law

HEM 220 Beverage Promotion

Description This course is designed to provide the practical knowledge needed to manage a restaurant bar or beverage operation.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite HEM 205 Alcohol Beverage Law

HEM 225 Wine Fundamentals

Description Through tasting, the student will develop an appreciation of different types of wine, including varietal characteristics and other components, in order to understand the role of wine in professional food and beverage operations. Students must be 21 years of age.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	HEM 205 Alcohol Beverage Law

HEM 230 Mixology

Description Create a wide variety of classic and everyday mixed drinks in a standard bar setting. Learn about bar glassware and equipment identification, pouring techniques, common cocktail mixing methods, history of distilled spirits, origin and characteristics of various distilled spirit brands, distillation process, bartenders job description, and responsibilities, cost control, beverage pricing and responsible alcohol service. This course will prepare students to complete the ServSafe Alcohol certification. Students must be 21 years of age to enroll in this course.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	HEM 205 Alcohol Beverage Law

HEM 233 Restaurant Incubator

Description Students will implement business plans for their restaurant concept in the student incubation space including menu design, marketing, purchasing, prep, clean up, etc.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	HEM 143 Introduction to Food Business Management

HEM 235 Hospitality Management Internship

Description This is a work-based learning course which enables students to develop practical skills, relate theory to practice, and to gain a sound base of industrial experience by working – on a paid or voluntary basis – from a range of organizations within the hospitality industry. In addition, this course seeks to develop 'employability skills' to assist students in progressing towards a career in hospitality.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite	HEM 105 Sanitation and Safety
Prerequisite	HEM 115 Introduction to the Hospitality Industry
Prerequisite	HEM 140 Hospitality Financial Management

HHA 100 Home Health Aide

Description Prepares the Certified Nurse Aide (CNA) to care for clients in community and home settings. Graduates may take the Kansas certification examination to become a Home Health Aide (HHA).

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	GRA 101 Certified Nurse Aide

HIS 110 United States History to 1877

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

Total Credits 3

Total Hours 45

HIS 120 United States History since 1865

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

Total Credits 3

Total Hours 45

HIS 130 World History I

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

Total Credits 3

Total Hours 45

HIS 140 Humanities Prospectus

Description This course combines humanities topics including art, religion, world history and U.S. history with the goal that students gain a greater understanding of how the humanities topics interact and impact the world around them. The course will survey world and United States history, broadly looking at politics, culture, economics, art and religious/philosophical accomplishments that have shaped our world today.

Art – gain an appreciation for art, studying the concepts and artist's work so that students improve one's judgment and ability to understand art critically.

Religion – Introduction to Buddhism, Christianity, Judaism, and Islam. Students will examine the basic components of each faith, as well as the historical and cultural impact of each religion

World and U.S. History – surveying world and U.S. history in the areas of politics, culture, economics, and religious/philosophical accomplishments, covering the period from the Renaissance to the 20th century.

Total Credits 3

Total Hours 45

Humanities Elective

Description This course is the placeholder for the Humanities elective. Students may enroll in the following courses to fulfill the Humanities elective: ART 100 Art Appreciation, ENG 110 Introduction to Literature, ENG 205 Introduction to Creative Writing, HIS 110 United States History to 1877, HIS 120 United States History since 1865, HIS 130 World History I, MGT 111 Business Ethics, PHL 110 Ethics, PHL 115 Logic, REL 101 New Testament, THR 100 Theater Appreciation

Total Credits 3

Total Hours 45

IND 105 Industrial Automation Test Equipment

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

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite AVC 110 OSHA Safety or IND 100 Industrial Safety Procedures/OSHA 10

IND 109 Programmable Logic Controls

Description This course examines types, installation, programming procedures and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course.

Total Credits 3

IND 111 Foundations of Manufacturing

Description This course is designed to teach students the non-technical side of manufacturing that helps them to know where they fit into the value chain and how their performance affects the company, and to understand how and why decisions are made. Soft skills, proper selection and use of maintenance tools, safety, and differences in maintenance practices will be introduced.

Total Credits 2

Total Hours 45

IND 115 Industrial Safety

Description The primary purpose of this course is to introduce and familiarize new students with the use and safety precautions to consider and apply as an Industrial

Mechanic. This course will cover the principles of Lockout/Tagout and Arc Flash. These standards along with safety principles within a production environment will be covered.

Total Credits 1

Total Hours 15

IND 116 Advanced Motor Controls

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

Total Credits 3

Total Hours 60

IND 117 Variable Speed Motor Control

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite IND 116 Advanced Motor Controls

IND 121 Mechanical Systems Reliability

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

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite IND 117 Variable Speed Motor Control

IND 130 Mechanical Systems

Description This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment, teaches basic industrial application of mechanical principles with emphasis on power transmission and specific mechanical components. Students will also design basic mechanical transmission systems using chains, V-Belts and gears.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite IND 121 Mechanical Systems Reliability

IND 131 Industrial Programmable Logic Controls (PLC)

Description This course examines types, installation and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite IND 109 Basic Industrial Programmable Logic Controls

IND 132 Industrial Process Control

Description This course provides understanding of different types of process control systems like temperature, flow and level control. The course includes process control principles, thermocouples, RTD's, temperature measurement devices, ON/Off temperature controlled, programmable process heat controllers, transmitters, process loop test and operate system found in industrial application.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite IND 131 Industrial Programmable Logic Controls

IND 137 Industrial Schematics

Description This course is designed to provide students with the skills and knowledge necessary to read and interpret various types of schematics commonly used in electrical hydraulic, pneumatics, and IOT systems. Through theoretical instruction and hands on practice, students will learn how to analyze and understand schematics accurately, identify key components, interpret symbols and diagrams and help troubleshoot systems issues effectively.

Total Credits 2

Total Hours 30

IND 139 CNC Operation for Maintenance Applications

Description This course will train the student in the basic manual operation of CNC Machine tools. It will cover the required programming codes to move the machine using Manual Data Input (MDI), as well as hand and jog functions. It is designed to teach the student how to manipulate the machine to perform maintenance, troubleshooting, and repair operations.

Total Credits 3

Total Hours 75

IND 143 Electrical System Troubleshooting

Description Students will focus on the application and troubleshooting of advanced electrical applications in an industrial maintenance setting. A systems approach will be utilized to include panels, relays, power, and the impact of electrical code.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite IND 109 Programmable Logic Controls

Prerequisite IND 122 AC/DC

IND 147 Fluid Power I

Description This course provides instruction in fundamental concepts and theories for safely operating hydraulic components and pneumatic 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, and pump operation.

Total Credits 3

Total Hours 75

IND 150 Manufacturing Equipment and Tools

Description In this course students will learn how to use common manufacturing tools and equipment properly and safely. Students will learn the proper selection and applications of maintenance tools and demonstrate safe practices in a maintenance environment.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite IND 111 Foundations of Manufacturing

IND 152 Predictive Maintenance

Description This course addresses regular routine predictive maintenance measures that allow for forecasted maintenance issues that may impact manufacturing operations. Introduces students to the various types and styles of predictive maintenance components, principles, and practices used in industrial applications.

Total Credits 2

Total Hours 45

IND 157 Preventative Maintenance

Description This course addresses regular routine preventative maintenance measures that allow for continued manufacturing operations. Introduces students to the various

types and styles of preventative maintenance components, principles, and practices used in industrial applications.

Total Credits 2

Total Hours 45

IND 160 Fluid Power II

Description This course provides instruction in advanced concepts and theories for safely operating hydraulic components and pneumatic systems. Topics include the maintenance and troubleshooting of hydraulic and pneumatic systems including valves, motors, actuators, fluids, and pump operations.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite IND 147 Fluid Power I

IND 165 Industrial Process Control II

Description This course provides advanced procedures for the install, operations, and troubleshooting of different types of process control operations. The course includes systematic approach to the instrumentation, tuning, and application of equipment used to control and regulate temperature, flow, pressure, speed, and other process variables in industrial control systems.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite IND 132 Industrial Process Control

IND 170 CNC Installation

Description The course will cover the steps and tools utilized in the installation of precision manufacturing equipment. Topics covered include the review of the tools and measuring devices, safe and proper setup, alignment, and calibration procedures for advanced machinery including laser alignment, hands-on practice with installation techniques, safety protocols, and thorough quality checks to ensure

optimal performance and accuracy of the equipment within customer and/or OEM tolerances.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite IND 139 CNC Operation for Maintenance Applications

IND 175 Advanced CNC Maintenance Applications

Description Building on the foundational skills acquired in the CNC Maintenance course, this advanced hands-on training program dives deeper into the complexities of maintaining and optimizing CNC machines. Designed for experienced technicians and maintenance personnel, this course focuses on advanced troubleshooting techniques, system integration, and enhancing machine reliability through innovative maintenance practices.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite IND 139 CNC Operation for Maintenance Applications

INF 105 CompTIA A+ Core 1

Description This course will prepare the student for entry level work in the Information Technology career field. Successful students will have the skills necessary for installing, maintaining, configuring, and upgrading PC (Personal Computer) workstations. Students will utilize troubleshooting techniques and tools to effectively and efficiently resolve PC, OS, and network connectivity issues and implement security practices. Job titles in some organizations that would describe the role of this individual may be: Enterprise technician, IT administrator, field service technician, PC or support technician etc.

Total Credits 3

Total Hours 75

INF 110 CompTIA A+ Core 2

Description This course will prepare the student for entry level work in the Information Technology career field. Successful students will have the knowledge required to understand the fundamentals of computer technology, networking and security, and will have the skills required to identify hardware, peripheral, networking, and security components. Upon completion of the course students will understand the basic functionality of the operating system and basic troubleshooting methodology, practice proper safety procedures, and will effectively interact with customers and peers.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF105 A+ Certification -Essentials

INF 112 Network Essentials

Description This course teaches the fundamentals of networking. It covers how devices communicate on a network, network addressing and network services, how to build a home network and configure basic security, the basics of configuring Cisco devices, and testing and troubleshooting network problems.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 105 CompTIA A+ Core 1

INF 113 Introduction to Programming

Description Programmers are in higher demand today than ever before. Get the essential skills and tools to become a successful software engineer and learn the fundamental concepts and practices that are critical to the task of coding—no matter what language you choose. In this course, students will develop the knowledge to begin programming in any language, connect programming theory to practice in real-life scenarios, and apply best practices from experts in the field.

Total Credits 3

Total Hours 60

INF 115 Network+ Part I

Description This course prepares a student for entry level installing, maintaining, troubleshooting, and repairing a computer network.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 112 Network Essentials

INF 116 Network+ Part II

Description This is a continuation of INF 115 Networking Part 1. This class prepares students to work with network operating systems and network design issues.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF115 Network+ Part I

INF 120 Security+

Description This course prepares students for the CompTIA Security+ Certification exam. CompTIA Security+ is a global certification that validates the baseline skills needed to perform core security functions and pursue an IT security career. The Security+ course focuses on the latest trends and techniques in risk management, risk mitigation, threat management, and intrusion detection. The Security+ course provides students with the knowledge and skills required to assess an enterprise environment's security posture, recommend and implement appropriate security solutions, and monitor and secure hybrid environments, including cloud, mobile, and IoT. In this course, students will learn to operate with an awareness of applicable laws and policies, including principles of governance, risk management, and compliance, while identifying, analyzing, and responding to security events and incidents. This course prepares the student for a System Administrator, Network Administrator, Security Administrator, Junior IT Auditor/Penetration Tester, Security Specialist, Security Consultant or Security Engineer.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	INF 116 Network+ Part II

INF 127 Linux

Description This course provides an in-depth introduction to Linux System administration. It equips students with foundational skills necessary to manage and troubleshoot Linux environments in real-world enterprise settings. Topics covered include Linux file systems, package management, basic system configuration, shell scripting, networking, security, and administrative tasks.

Through hands-on labs, students will gain practical experience with command-line tools and key system administration tasks such as user management, permissions, disk quotas, and process control. The course emphasized the ability to work with various Linux distributions, including Debian, Red Hat, and CentOS, providing a broad understanding of Linux-based environments.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	INF 110 A+ Certification - Application
Prerequisite	INF 116 Network+ Part II

INF 134 Server +

Description This course prepares students for the CompTIA Server+ Certification exam. This course is vendor neutral and works with Microsoft Windows Server Operating Systems, Linux Open Source Operating Systems, and VMware virtualization products. This course covers the basics from how the hardware and operating systems works to more advanced concepts of RAID, virtualization, security, network storage, building domain controllers for an enterprise environment, managing users, groups, and permissions and troubleshooting. The course prepares students to work in a wide variety of jobs such as System Administers, Webserver administrators, virtualization, and cloud administrator roles.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	INF 110 A+ Certification-Application

INF 136 Introduction to PowerShell

Description Introduction to PowerShell provides an overview and application of the next generation command shell developed by Microsoft. Students learn to interact with Windows PowerShell from the command line. This course prepares students to demonstrate an understanding and application of the fundamentals of how to develop and execute PowerShell scripts, and how to become an effective programmer in the PowerShell environment.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite INF 116 Network + Part II

INF 139 Cybersecurity Essentials

Description In this course, learners develop workforce readiness skills and build a foundation for success in cybersecurity-related careers. With video and rich interactive media support, participants learn, apply, and practice cybersecurity knowledge and skills through a series of in-depth, hands-on experiences and simulated activities that reinforce their learning. Cybersecurity Essentials teaches comprehensive cybersecurity concepts and skills at the entry level, from threat mitigation and defense to post-incident forensics. Learners will progress from basic cybersecurity concepts to experiences in assessing vulnerabilities and risks later in the curriculum.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 116 Network+ Part II

INF 142 Cloud+

Description This course prepares students and professionals who are interested in mastering fundamental, vendor-independent cloud computing concepts. No previous cloud computing experience is necessary to begin learning from this course, although knowledge of basic computer, networking, and security principles is helpful.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite INF 110 A+ Certification - Application

INF 144 Virtualization

Description In this course students will learn how to implement and support virtualization of clients of servers in a networked computing environment. Through the course curriculum students will explore installation, configuration, and management of computer virtualization workstations and servers.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 134 Server

INF 154 Ethical Hacker

Description In this course, learners develop ethical hacking and penetration testing skills that build a foundation for success in the cybersecurity industry. With the support of video and rich interactive media, participants learn, apply, and practice ethical hacking skills in meaningful ways through a series of realistic hands-on lab experiences. The course also includes many opportunities for learners to practice what they are learning as they are learning it. Learning by doing is the most powerful way to build new skills and knowledge.

Total Credits 3

Total Hours 60

INF 160 Server Security

Description Server Security is designed to provide the students with concepts to develop, deploy, and maintain reliable and secure servers. Topics will include SSH keys, Firewalls, PKI systems, SSL and TLS encryption, service and file auditing.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 134 Server+

INF 164 Switching, Routing, and Wireless Essentials

Description Delve further into the world of networking with the second CCNA course in a 3-course series. This course focuses on switching technologies and router operations that support small-to-medium business networks, including wireless local area networks (WLAN) and security concepts. Students will perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN. CCNAv7: Switching, Routing, and Wireless Essentials (SRWE) covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 116 Network+ Part II

INF 165 Advanced Cyber Security

Description Advanced Cyber Security is designed to enhance students' knowledge of security practices. The course will cover a range of topics that are vital for securing modern enterprises. Topics will include plans and policies, enterprise roles, security metrics, risk management, standards and regulations, physical security and business endurance.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 120 Security+

INF 167 Enterprise Networking, Security, and Automation

Description Large enterprises depend heavily on the smooth operation of their network infrastructures. The third course in the 3-course CCNA series describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. It covers wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access along with the introduction of software-defined networking, virtualization,

and automation concepts that support the digitalization of networks. CCNAv7: Enterprise Networking, Security, and Automation (ENSA) describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 164 Switching, Routing, and Wireless Essentials

INF 172 Multi-Cloud Networking

Description Cloud networking impacts all careers, and an awareness of the opportunities associated with this emerging field is critical. Support Specialists need to understand what it means to manage on and migrate to the cloud—and comprehend the overall landscape before diving into the platform. In this course, you will get a high-level overview just for support specialist, focusing on the features and services in a multi-cloud networking environment using Google Cloud, Amazon Web Services, and Microsoft Azure.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite INF 142 Cloud+

INF 174 Information Technology Capstone

Description In this course students, will have the opportunity to link classroom/lab theory with a capstone learning opportunity. Through hands on application, reflection and evaluations, students will demonstrate integrated knowledge and growth in the field of information technology. Students will produce a critical reflection on their capstone experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Corequisite	INF 120 Security +

INF 175 Information Technology Internship

Description In this course, students will have the opportunity to link classroom/lab theory with an experimental learning opportunity. Through direct observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and customers, how these relate to their program of study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Corequisite	INF 120 Security +

INF 180 Advanced Network Security

Description Advanced Network Security is designed to provide the student advanced concepts in network security including defending the network. Topics will include configuring network appliances, defending against unauthorized access, misuse, modification, or denial of network resources.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	INF 165 Advanced Cyber Security

INT 101 Interior Design Fundamentals

Description This course emphasizes the fundamentals of design by exploring design elements and principles, color rendering, space planning, and problem-solving skills for interior design. Inclusive in this course are research techniques, creating illustration boards, and honing presentation skills.

Total Credits 3

Total Hours 75

INT 105 Blueprint Reading for Interior Design

Description This is an introduction to blueprints for interior construction and service systems. Students will learn basic detail 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, and communication with architects and contractors are included in this course.

Total Credits 3

Total Hours 75

INT 110 Color Theory

Description This course introduces the use of color for interior design. Emphasis is on color theory, psychology of color and how it affects the brain and moods, and application of color in interior environments and lighting conditions. Included is the vocabulary of color, color temperatures, the principles of the color wheel and how to use it. With the use of paint values, tones, and shades are mastered.

Total Credits 3

Total Hours 75

INT 126 Textiles

Description 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.

Total Credits 3

Total Hours 75

INT 127 Materials for Interior Environments

Description Explorations of various hard treatments used in design are covered in this course. By the end of the semester, each student will know various hard treatments necessary for design of interior spaces, the functions of each, and their appropriate uses. Accurate specifications of interior materials are emphasized in this course.

Students should feel confident in researching design products. Each student will have started a reference library of local and national vendors.

Total Credits 3

Total Hours 75

INT 141 History of Furniture & Architecture

Description This course provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces, and accessories from Egyptian period through Post Modern. Students will learn chronologies, key terms, designer contributions, and ruler influence on furniture and architectural elements in a time line manner. Through hands on experience with furniture and actually creating pieces of “art styled” furnishings they will comprehend what is involved in furniture making.

Total Credits 5

Total Hours 120

INT 155 Lighting Technologies

Description This is an introduction to the basics of lighting technologies used in interior design: color, lighting styles, and lighting fixtures. Students will learn to read lamp indicators, calculate lumens and foot-candles, and determine proper heights and usage for various lighting techniques. An understanding of light analysis, residential and commercial lighting, lighting design, lighting applications, and requirements for various types of lighting are studied. Developments of lighting and electrical layouts on floor plans are inclusive in this course.

Total Credits 3

Total Hours 75

INT 160 Design Studio I

Description This course provides long projects that address real-life design situations. It will develop competencies in solving design problems. Technical and conceptual concerns, color theory, lighting technology, scale, materials selection, and creative design articulation through presentation and illustrations are critical elements for this class. Deployment of invoicing techniques, material selection, and working within codes and standards are emphasized.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	INT 101 Interior Design Fundamentals
Prerequisite	INT105 Blueprint Reading for Interior Design
Prerequisite	INT 110 Color Theory
Prerequisite	INT 126 Textiles
Prerequisite	INT 141 History of Furniture & Architecture
Prerequisite	INT 155 Lighting Technologies
Corequisite	INT 166 AutoCAD for Interior Design
Prerequisite	INT 190 Drafting for Interiors
Prerequisite	INT 196 Interior Design Codes and Standards

INT 165 Design Studio II

Description This course provides long-term projects that address real-life design situations. It will develop competencies in solving design problems. 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 Wichita Area Building Associations (WABA) Parade of Homes.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite	INT 160 Design Studio I

INT 166 AutoCAD for Interior Design

Description This course introduces computer-aided drafting (CAD). AutoCAD is used to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. This course introduces drafting standards used for drawings with AutoCAD. Included are dimensioning, blocks, elevations, floor plans, section views, external references, construction drawings, standards for symbols and abbreviations, plotting and printing.

Total Credits 5

Total Hours 120

Pre/Corequisites

Prerequisite	INT 105 Blueprint Reading for Interior Design
Prerequisite	INT 190 Drafting for Interiors

INT 168 Basic Chief Architect for Interior Design

Description Students use computers to learn how to utilize three-dimensional software to design houses, residential and commercial spaces. This course provides instruction in how to use the software and draw walls, windows, doors, cabinets, plumbing and electrical fixtures, furniture and accessories.

Total Credits 3

Total Hours 75

Pre/Corequisites

Corequisite	INT 166 AutoCAD for Interior Design

INT 170 Business Practices & Portfolio Development

Description This course covers client contracts, presentation skills, resource development, business forms and legal forms, business management and laws pertaining to interior design. A professional personal portfolio is refined in this class for employment purposes. A professional resume will be included as part of the portfolio package. Students will obtain background knowledge necessary for successful business practices for interior design.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	INT 160 Design Studio I
Prerequisite	INT 218 Kitchen & Bath Design

INT 173 Design Studio III

Description This is the third course in the Design Studios series. In this course students will further develop competencies in solving design problems. 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 Wichita Area Building Associations (WABA) Parade of Homes.

Total Credits 3

Total Hours 90

Pre/Corequisites

Prerequisite INT 165 Design Studio II

INT 190 Drafting for Interiors

Description This course is designed to help the student increase their knowledge concerning drafting blueprints for interior construction and service systems, and emphasizes the development of fundamental drafting techniques. Topics include terminology, care and use of drafting equipment, lettering, line relationships and geometric construction.

Total Credits 3

Total Hours 75

INT 192 Perspective Drawing for Interior Design

Description This course is designed to help the student increase their knowledge of the fundamentals of design through the exploration of sketching, hand drawing and drawings in one- and two-point perspective using a variety of grid layouts, eye-levels, vanishing points, cones of vision, and lighting sources are used.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite INT 190 Drafting for Interiors

INT 193 Rendering for Interior Design

Description This course is designed to help the student increase their knowledge of the fundamentals of design through the exploration perspectives, cones of vision, and lighting sources. Rendering techniques are mastered by employing markers and

colored pencils. Rendered finishes include, but not limited to, reflective finishes, textures (wood, stones, and other elements), and shadows.

Total Credits 3

Total Hours 75

INT 196 Interior Design Codes & Standards

Description This course is designed to focus on the most current and widely used building codes, fire codes, electrical and plumbing codes as required by the industry. Included are working with code officials, documenting projects both large and small, single-family homes, historical and existing buildings, and new construction.

Total Credits 3

Total Hours 75

INT 218 Kitchen & Bath Design

Description This course is designed to help the student develop special considerations necessary to design and plan kitchens and baths. Topics include the study of the basic principles of kitchen and bath design, planning, proper function and layout, accurate measuring techniques, specification documentation, theme and historical design. The application of the National Kitchen and Bath Association’s Guidelines of Planning Standards and Safety Criteria for residential kitchens and bathrooms, including Universal Design concepts, will be covered. Topics include the use of building codes, safety criteria, universal and accessibility criteria, and ergonomics.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	INT 190 Drafting for Interiors
Prerequisite	INT 105 Blueprint Reading for Interior Design

LEN 100 Lean for Operations

Description This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in industry today. Students begin with a discussion of Lean Manufacturing’s' place in the overall process of continuous improvement. Students will then move on to learning to apply basic elements of

lean, lean system design, lean tools and measurement methods to industry-based scenarios.

Total Credits 3

Total Hours 45

LEN 105 Lean Culture - People Systems

Description This course has been developed to enable the student to understand the differences between the current work cultures and a lean culture. Students will be able to identify the steps and changes necessary to implement lean while changing the culture to ensure the gains from Lean activities will continue.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite LEN100 Lean for Operations

LEN 106 Value Stream Alignment

Description This course is designed to familiarize the students with the process of Value Stream Mapping and how to apply it to improve processes. The class will begin with a description of Value Stream Mapping and how it utilizes material and information flows. Students will learn how to complete a Current State Value Stream Map, evaluate the map and then create a Future State Value Stream Map and Implementation Plan.

Total Credits 3

Total Hours 45

LEN 109 Lean for Engineering

Description This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in Engineering practices today. Students begin with an overview of Lean Manufacturing and continuous improvement. Students will then learn to apply basic elements of lean and process improvement to Engineering scenarios.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	LEN 100 Lean for Operations

LEN 110 Lean for Services – Offices

Description This course will teach students the basics of both Lean and Six Sigma and how these problem-solving methodologies apply to service organizations. Students completing this course will be better prepared for real business world issues and have the ability to apply these concepts and tools at a basic level.

Total Credits 3

Total Hours 45

LGM 101 Principles of Logistics and Supply Chain Management

Description Introduction to the field of logistics and supply chain management. Includes development of logistics systems, careers in logistics, distribution planning, supply chain security, and customer service. Also includes roles and functions of: purchasing, inventory control, physical distribution, warehousing, transportation methods, packaging, and customs.

Total Credits 3

Total Hours 45

LGM 102 Inventory Control

Description A study of inventory control concepts and techniques. Includes, cost concepts, determining size and nature of inventory, forecasting, and inventory planning and control. Also includes ordering methods, controlling pilferage, and matching customer demand with supply.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	MTH 020 Math Fundamentals Or
Prerequisite	MTH 025 PACER I

LGM 103 Contracts and Freight Claims

Description A study of the considerations involved in the drafting and negotiation of freight and logistics contracts, and of loss avoidance and mitigation in transit. Includes legal and regulatory requirements applicable to contracts for product transportation, and logistics functions and considerations for drafting and negotiating contracts with freight carriers, warehousemen and other logistics service providers. Also includes customer satisfaction, claim preparation, filing procedures, and claim dispute resolution.

Total Credits 3

Total Hours 45

LGM 105 Warehouse Management

Description Survey of warehouse function, process, organization and operations. Includes analysis of warehouse location, operation, and management. Also includes controls and procedures, financial analysis, security, cargo/materials handling, and productivity.

Total Credits 3

Total Hours 45

LGM 106 Transportation and Traffic Management

Description A study of the domestic freight transportation system. Includes demand for freight movement, laws, regulations, pricing, and policies. Also, traffic management, customer service, security, and international transportation issues.

Total Credits 3

Total Hours 45

LGM 107 Introduction to Purchasing

Description Survey of basic purchasing functions. Includes establishing requirements and quantities, developing policies and procedures for purchasing, making purchasing decisions, receiving acceptable goods, arranging packaging and shipping, and managing inventory levels.

Total Credits 3

Total Hours 45

LGM 108 International Logistics

Description An introduction to the role of logistics in global business. Includes the economic and service characteristics of international transportation providers, the government's role, documentation and terms of sale used in global business, and the fundamentals of effective export and import management.

Total Credits 3

Total Hours 45

LGM 150 Supply Chain Analytics

Description This course introduces the student to data analytics and demonstrates the value of their effective use in supply chain management. By studying the key supply chain processes, the student will work through examples along with the descriptive, predictive and prescriptive analytic methods that can be applied to bring about improvements to those processes. Key topics addressed include optimization, big data, data mining and cloud computing. The course presents a comprehensive learning experience for the student regarding supply chain analytical problem solving.

Total Credits 3

Total Hours 45

LGM 190 Logistics and Supply Chain Internship

Description Culmination of logistics program. Includes guidelines and procedures for workplace learning, application of learned concepts on the job. Also includes initiation, management, and completion of capstone project. Consent of the instructor is required before enrolling in this course. Students must complete 125 hours at a program-approved employer worksite.

Total Credits 3

Total Hours 125

LGM 196 Capstone in Logistics & Supply Chain Management

Description This capstone course provides the student with an opportunity to synthesize their learning from coursework through the Logistics & Supply Chain Management program. It requires students to write a detailed term paper as part of an in-depth

study of supply chain management strategy and the decision-making processes. Students will use current journals and the latest literature to develop solutions to supply chain topics and industry of their choice.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	LGM 101 Principles of Logistics and Supply Chain Management
Prerequisite	LGM 105 Warehouse Management or LGM 106 Transportation and Traffic Management or LGM 107 Introduction to Purchasing

MCD 101 Introduction to CAD I

Description This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. Students will use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD. This course also examines dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple use, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing drawings with AutoCAD.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	Blueprint Reading (MMG 113 Print Reading or AVC 112 Blueprint Reading or MCD 104 Blueprint Reading for Drafting)

MCD 102 Introduction to CAD II

Description This course is a continuation of Introduction to CAD I. All the skills taught in Introduction to CAD I will be reinforced with projects.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite MCD 101 Introduction to CAD I

MCD 104 Blueprint Reading for Drafting

Description This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

Total Credits 2

Total Hours 30

MCD 106 Precision Measuring

Description This course is designed to assist multiple technical training disciplines with the proper operation, calibration, and measuring techniques required for utilizing precision measurement equipment effectively. Both SAE and metric measuring instruments will be covered, including steel rules, feeler gauges, precision straight edge, calipers, inside and outside micrometers, angle measurement, small hole gauges, telescoping gauges and dial indicators.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite MCD 104 Blueprint Reading for Drafting or AVC 112 Blueprint Reading or MMG 113 Print Reading or MNF 113 Blueprint Basics for Manufacturing or TFF 112 Print Reading

MCD 112 Industrial Materials & Processes

Description Includes instruction in materials, measurement, specifications, design principles, hardware and fasteners, vocabulary, machine fabrication, Geometric Dimensioning and Tolerance (GD&T), Machinery's Handbook, surface finishes and an understanding of the fabrication practices used in manufacturing and construction.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite	MCD 124 Advanced AutoCAD

MCD 114 Architectural Drafting & Design

Description Includes instruction in freehand drawing, basic residential planning, creative design, dimensioning, working details, light construction principles, building systems and blueprint development, learning construction terminology, applying ANSI Standards, local codes and drawing prints to industry standards.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	MCD 102 Introduction to CAD II
Prerequisite	MCD 104 Blueprint Reading for Drafting

MCD 115 Machine Drafting & Design

Description Includes instruction in creative design, geometric construction, auxiliaries, dimensioning, sectioning, isometrics, obliques, specifications and notes, manufacturing engineering techniques and the Machinery's Handbook. Includes developing prints of working drawings, researching trade periodicals, learning machine terminology, using ANSI Standards and basic manufacturing blueprint development.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	MCD 101 Introduction to CAD within the last 5 years
Prerequisite	MCD 121 Descriptive Geometry
Prerequisite	MCD 104 Blueprint Reading for Drafting

MCD 121 Descriptive Geometry

Description Students use computers to study descriptive geometry as it applies to drafting, and they determine the true length of lines, true shapes of planes and apply descriptive geometry to real problems. Students will also create flat pattern layouts for form three dimensional shapes.

Total Credits 3

Total Hours 75

Pre/Corequisites

Pre/Corequisite MCD 101 Introduction to CAD I

MCD 124 Advanced AutoCAD

Description This course explores the three-dimensional construction and viewing capabilities of AutoCAD. Topics covered include a review of point coordinate entry and the user coordinate system (UCS). Spherical and cylindrical coordinate entry, 3D viewing and display techniques, construction of 3D solid primitives, 2D regions, solid modeling composites, and surfaces are also introduced. The use of multiple viewports for 3D constructions and creating 2D layouts are covered. Visual styles and rendering are also discussed.

Total Credits 4

Total Hours 105

Pre/Corequisites

Pre/Corequisite MCD 115 Machine Drafting & Design

MCD 130 Basic Solidworks

Description Students Learn how to use the SOLIDWORKS mechanical design automation software to build parametric models of parts and how to make drawings of those parts.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite MCD 104 Blueprint Reading for Drafting OR MMG 113 Print Reading

MCD 132 Basic Chief Architect/Architectural Desktop

Description Students use computers to learn how to utilize three-dimensional software to design houses. This course provides instruction on how to use the software and draw walls, windows, doors, foundations, and roofs.

Total Credits 3

Total Hours 75

MCD 133 Advanced Solidworks

Description Students Learn how to use the SOLIDWORKS mechanical design automation software to create advanced part modeling and assemblies. Using the software, we will also look at assembly blueprint creation as well as prepping for the CSWA exam.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite MCD 130 Basic Solidworks

MCD 134 Advanced Chief Architect/Architectural Desktop

Description Students use computers to learn how to utilize three-dimensional software to design houses. This course provides instruction on how to add interior furniture, terrains, elevations, working drawings, presentation drawings and how to use the camera functions.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite MCD 132 Basic Chief Architect/Architectural Desktop

MCD 137 Introduction to 3D Printing

Description This course seeks to provide the student with a basic understanding of the industrial design process, using the 3D printer capability to obtain hands-on experience in producing a design from concept to prototype. Major topics covered this introductory course include Basic Part Design using AutoDesk Inventor; Basic Part Design using Solidworks; 3D Part Modeling

Total Credits 2

Total Hours 45

MCD 140 Drafting Technology Internship

Description Introduces students to the application and reinforcement of drafting and employability principles in an actual job setting. This internship acquaints the student with realistic work situations and provides insights into a drafting job. Topics include appropriate work habits, acceptable job performance, application of drafting/CAD knowledge and skills, interpersonal relations, and development of productivity.

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite	MCD 124 Advanced AutoCAD & CAT 105 CATIA Assembly Design or MCD 124 Advanced AutoCad & MCD 134 Chief Architect/Architectural Desktop
Prerequisite	All paperwork must be submitted to the department before a student may enroll in this course.

MCD 156 Intermediate Measuring Instruments

Description This course provides a comprehensive introduction to Intermediate Measuring Instruments. It covers the fundamentals of Primary Standards, Dimensional Measurements, Support and Layout, Flexible Measurements, and more. You will learn how to properly use, maintain, and troubleshoot a wide range of measuring instruments. You will also gain an understanding of the theoretical principles of calibration and the importance of traceability. This course is designed for engineers, technicians, and other professionals who need an understanding of intermediate measuring instruments.

Total Credits 3

Total Hours 2

Pre/Corequisites

Prerequisite MCD 106 Precision Measuring

MCD 164 Residential Design Using Autodesk Revit

Description Residential Design Using Autodesk Revit is designed for users completely new to Autodesk Revit. This text takes a project-based approach to learning Autodesk Revit's architectural tools in which you develop a single-family residence all the way to photorealistic renderings.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite MCD 114 Architectural Drafting and Design

MCD 201 Geometric Dimensioning & Tolerance

Description The Geometric dimensioning and tolerance course is an in-depth study designed to develop a basic working knowledge in geometric dimensioning and tolerancing (GD&T). It is delivered per the ASME Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel need to know in order to work in an industrial environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color animated graphics, video clips and plastic models which allow the students to clearly understand the concepts.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite Blueprint Reading (MMG 113 Print Reading or AVC 112 Blueprint Reading or MCD 104 Blueprint Reading for Drafting)

MCD 205 Residential Drafting

Description Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include footing, foundation, and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans, and specifications.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite MCD 132 Basic Chief Architect/Architectural Desktop

MCD 210 Advanced Measuring

Description This course is designed to assist multiple advanced technical training disciplines with proper operation, field verification, and measuring techniques of instruments utilized in precision machining and manufacturing. Both SAE and metric measuring instruments will be covered in topics including Primary standards, Flexible Measuring Instruments, Support and Layout, Surface Finishing and Hardness, Data Acquisition and Optical Comparator.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite MCD 106 Precision Measuring

MCD 224 Commercial Design Using Autodesk Revit

Description Commercial Design Using Autodesk Revit provides you with a well-rounded knowledge of tools and techniques for use in both school and industry. A project-based approach to learning Revit's architectural tools in which you develop a three-story office building. General building codes and industry standard conventions are covered in a way that is applicable to the current exercise.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite MCD 164 Residential Design Using Autodesk Revit

MDU 010 Medication Aide Update

Description Provides the continuing education required every two years by the Kansas Department of Health and Environment for renewal of the medication aide certificate.

Total Credits 1

Total Hours 12

Pre/Corequisites

Prerequisite	GRA 101 Certified Nurse Aide
Prerequisite	GRA 119 Medication Aide

MFG 100 Lean Manufacturing

Description This course is designed to familiarize the students with the concepts and practices of Lean Manufacturing as applied in industry today. Students begin with a discussion of Lean Manufacturing's place in the overall process of continuous improvement. Students will then move on to learning to apply basic elements of lean, lean system design, lean tools and measurement methods to industry-based scenarios.

Total Credits 3

Total Hours 45

MFG 125 Manufacturing Internship

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 1

Total Hours 45

MGT 106 Introduction to Human Resources

Description Comprehensive view of human resources within an organization. Students examine the human resource functions of strategic human resource management, workforce planning, recruitment and selection, human resource development (training and development), total rewards (compensation and benefits), employee and union relations and risk management (health, safety and security). Emphasis is placed on understanding how human resource management contributes to an organization's strategic direction and enhances the organization's competitiveness.

Total Credits 3

Total Hours 45

MGT 111 Business Ethics

Description Provides students with an overview of business ethics and ethical management practices, with emphasis on the process of ethical decision-making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to the students how ethics can be integrated into strategic business decisions and can be applied to their own careers. The course uses a case study approach to encourage the student to develop analytical, problem-solving, critical thinking and decision-making skills. Topics include: An overview of business ethics; moral development and moral reasoning, personal values, rights and responsibilities; frameworks for ethical decision-making in business' justice and economic distribution' corporations and social responsibility, corporate codes of ethics and effective ethics programs, business and society; consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace; and business ethics and the rule of law.

Total Credits 3

Total Hours 45

MMG 113 Print Reading

Description Students will learn to identify basic lines, views, and abbreviations used in blueprints, interpret basic 2 D sketches using orthographic projections and blueprints, determine dimensions of features of simple parts, sketch simple parts with dimensional measurements, determine dimensions of a multi-feature part, interpret GDT symbols, frames and datums.

Total Credits 3

Total Hours 45

MMG 116 Quality Control & Inspection

Description Students are introduced to the science of dimensional metrology and its applications to ensure form and function of machined parts and assemblies using semi-precision and precision measuring instruments.

Total Credits	1
Total Hours	15

MMG 130 Bench Work

Description	In this course students will learn the importance of tool management and tool presetting in a production environment. Examines tool presetting and tool presetter programming. Provides students with the opportunity to inspect and validate complex tool geometry using a computer numerical controlled (CNC) tool presetter.
Total Credits	1
Total Hours	30

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	MMG 116 Quality Control & Inspection
Prerequisite	MMG 113 Print Reading

MMG 131 Metallurgy

Description	Students learn the metallurgical terms and definitions in an effort to understand the behavior and service of metals in industry. Characteristics during heating, cooling, shaping, forming, and the stress related to their mechanical properties are covered, as well as the theory behind alloys, heat treatment processes and wear resistance.
Total Credits	1
Total Hours	15

Pre/Corequisites

Prerequisite	AVC 110 Safety/ OSHA 10
Prerequisite	MMG 113 Print Reading

MMG 132 Machine Tool Processes

Description	This course provides students with the opportunity to demonstrate process and quality control through the use of information technology (IT) systems in the manufacturing environment. Covers the use of measure cuts in high-end

machining, systems communication, and data transfer to monitor productivity and quality. Features tools to monitor part quality in process.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	AVC 110 Safety/ OSHA 10
Prerequisite	MMG 116 Quality Control & Inspection
Prerequisite	MMG 113 Print Reading

MMG 135 Machining Fundamentals

Description This course will provide students with a solid foundation in all aspects of conventional mills and lathes. In this project- based course students will learn and apply skills in machining benchwork, blueprint analysis and project planning. The course projects will require that students learn all aspects of lathe/mills set up and usage techniques including work holding selection and feed and speed calculation. Knowledge of machine maintenance, tool selection, math skills, and job hazard analysis are also applied in this course.

Total Credits 3

Total Hours 75

MMG 140 Metrology

Description Students will learn the proper operation, field verification, and measuring techniques utilized in the machining industry. In this course students apply knowledge on state of art equipment and utilize simulation software. Additionally, students will learn and comply with TS-16949, ISO 9001 and MSA (Measurement Systems Analysis).

Total Credits 4

Total Hours 90

MMG 154 Multi-Cell Operations

Description In this course students will learn robotic/automation principles needed to function in the modern machining environment. In the course students will obtain hands-on experience by applying CNC operation skills to a multi-cell robotic environment.

Total Credits 4

Total Hours 90

MMG 155 CNC Lathe

Description Introduces students to two axis computer numerical control lathes machining. The theory of operations is developed in the classroom and through interactive online learning. Students then apply the knowledge in a cutting-edge CNC laboratory. Topics include machine set up, coordinates terminology, cutter paths, angel cutting, and linear cutting.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	MMG 156 CNC Operations

MMG 156 CNC Operations

Description Students will become acquainted with the history of Numerical Control (NC) and Computer Numerical Control (CNC) machines and will be introduced to a CNC machine used in the precision machining trades. They will gain practical experience in the application of "G" codes and "M" codes, writing CNC machine programs, and machine setup and operation.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	AVC 110 Safety/ OSHA 10
Prerequisite	MMG 116 Quality Control & Inspection
Corequisite	MMG 131 Metallurgy
Prerequisite	MMG 113 Print Reading

MMG 160 CNC Milling I

Description Students will gain practical experience in setting up and performing basic operations on CNC Milling machines.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite MMG 156 CNC Operations

MMG 164 Advanced Machining Processes

Description In this course students will apply knowledge and skills learned throughout the program to complex machining projects. Working in a state-of-the-art machining laboratory students will produce projects which reflect the most advanced skills needed in the machining industry.

Total Credits 3

Total Hours 75

MMG 170 Mastercam Mill 2 Axis

Description An introductory level course for Mastercam Software. This course will cover 3D modeling, 2D Machining, Gcode generation and the creation of set-up documentation.

Total Credits 4

Total Hours 90

MMG 173 G D & T for Machining

Description The Geometric dimensioning and tolerance course is an in-depth study designed to develop a working knowledge in geometric dimensioning and tolerancing (GD&T) as it applies to Machining. It is delivered per the ASME Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel need to know in order to work in a Machining environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color animated graphics, video clips and plastic models which allow the students to clearly understand the concepts.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	MMG 113 Print Reading

MMG 175 Mastercam Mill 3D Surface

Description This course introduces the methods used to create toolpaths for a CNC machining center using three dimensional solid models. Topics include 3D Wireframe & Surface, Surface Rough Plunge, Surface Finish Contour, Surface Finish Shallow, Surface Rough Pocket, and Surface Finish Contour.

Total Credits 4

Total Hours 60

MMG 180 Mastercam 4 & 5 Axis Mill

Description This course introduces the methods used to create 4 and 5 Axis toolpaths for a CNC machining center using three dimensional solid models. Topics include 4 and 5 Axis machining of complex geometry.

Total Credits 4

Total Hours 60

MMG 184 Multi-Axis Milling

Description This course will build on the concepts learned in the CNC Milling course and teach students how to set up and operate 4th and 5th axis milling machines. Students will understand the concept of rotational axes and be introduced to probing routines and automatic tool setters. Students will learn the application of the work coordinate system in the multi-axis environment and be introduced to more complex work holding options.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite	MMG 155 CNC Lathe

MNF 110 CNC Basics

Description Students will acquire knowledge of Computer Numerical Control (CNC) machines and will be introduced to CNC machines used in the precision machining trades. They will gain practical experience in the use of CNC Mills/Lathes through machine setup and operation.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite AVC 110 Safety/OSHA 10

MNF 113 Blueprint Basics for Manufacturing

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

Total Credits 2

Total Hours 30

MNF 115 Forklift Operations

Description This course is designed to train entry level workers in the correct use of a forklift to unload, move, stack, and load materials for shipping and distribution.

Total Credits 1

Total Hours 15

MNF 120 Manufacturing Processes & Production I

Description This course provides the introduction to a three-part series of instruction which is designed to provide students with a broad and basic understanding of manufacturing processes and production principles. In this course, students will explore a variety of topics that offer not only an understanding of manufacturing as an industry but also manufacturing as a career pathway. Using federal and nationally recognized standards, this coursework focuses on topics pertinent to manufacturing operation and production including the major components of

manufacturing, the types of manufacturing processes, the key elements of production planning, industry specific opportunities in manufacturing and career field specific opportunities in manufacturing.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	MMG 113 Print Reading
Prerequisite	AVC 135 Hand Tools
Prerequisite	MCD 106 Precision Measuring

MNF 125 Maintenance Training

Description In this course the student will learn how to monitor production equipment for both routine and preventive maintenance. The use of OEE (Overall Equipment Efficiency) is introduced, Targeting each fix in a production system under a 'zero fails' mentality. Monitoring includes analysis of equipment performance, Autonomous Maintenance (AM), and practicing planned stops for CIL's (Clean, Inspect, Lube) and Preventative Maintenance (PM) by recording, evaluating and categorizing failure through the visualization of data.

Total Credits 4

Total Hours 105

MNF 130 Manufacturing Processes & Production II

Description In this course students continue their study of current manufacturing processes & production concepts. During the course the Federally endorsed and national-endorsed standards required in industry and production are explored. The emphasis is placed on Just-In-Time (JIT) manufacturing principles, communication skills, an overview of Cause and Effect of equipment failure and how to apply the 8 Pillars of Total Productive Maintenance (TPM) methodology.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	MNF 120 Manufacturing Processes & Production I

MNF 157 Lean/Six Sigma

Description The Lean/Six Sigma White Belt Certification Course at WSU Tech is designed to equip students with fundamental knowledge and skills in Lean and Six Sigma methodologies. This course provides a comprehensive introduction to process improvement, waste reduction, and data-driven decision-making principles. Students will develop a strong foundation in problem-solving techniques, statistical analysis, and collaborative teamwork, essential for success in today's competitive industries.

Total Credits 3

Total Hours 60

MNF 163 Production Assembly

Description This course presents a systematic approach to production assembly operations in manufacturing. Students receive instruction in the fundamentals of assembly skills used throughout the modern manufacturing sector. Skill development includes torque wrenches, fittings, installing, operating, and maintaining O-rings and lip seals, assembling hoses and couplings, and routing hoses using clamps, brackets, and clips. In addition, the course includes the identification of fittings and handling of steel and plastic tubing.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite AVC 110 Osha/Safety

MNF 175 Manufacturing Technology Applied Learning Experience

Description The applied learning experience represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through workplace participation, direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

MNT 120 Understanding Mental Illness

Description This course introduces the concepts of mental health and mental illness. It focuses on the causes, symptoms, and treatment of mental illness, including an overview of diagnostic criteria of the major mental illnesses. The role of resilience in the prevention of and recovery from mental illness is explored along with individual stress response. It also includes discussion of basic observation skills, communication skills, and reporting responsibilities for the mental health technician.

Total Credits 2

Total Hours 30

Pre/Corequisites

Corequisite	PSY 101 General Psychology
Corequisite	MNT 130 Behavioral Science
Corequisite	MNT 140 Technical Skills I

MNT 130 Behavioral Science

Description This course emphasizes the role of social, economic, and cultural factors in the development of mental illness. It includes a focus on group and family dynamics and their relationship to mental illness and their role in treatment and rehabilitation. It also emphasizes the effects of serious and persistent mental illness on daily functioning, interpersonal relationships, and quality of life.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite	PSY 101 General Psychology
Corequisite	MNT 120 Understanding Mental Illness
Corequisite	MNT 140 Technical Skills

MNT 140 Technical Health Skills I

Description This course provides an introduction to basic nursing skills with emphasis on basic concepts of health maintenance and promotion. It provides skill development in using comfort and safety measures such as bed making, personal hygiene, activities of daily living (ADL), infection prevention, and vital signs. Basic principles of nutrition, hydration, and elimination are emphasized. The LMHT's role in emergency procedures such as fire and disaster, CPR, First Aid, and assisting with bringing emergency oxygen and suctioning equipment are included. Supervised skills labs and clinical assists the student in acquiring and integrating the basic health concepts.

Total Credits 5

Total Hours 135

Pre/Corequisites

Corequisite	PSY 101 General Psychology
Corequisite	MNT 120 Understanding Mental Illness
Corequisite	MNT 130 Behavioral Science

MNT 170 Pharmacology & Drug Administration

Description This course focuses on the basic concepts of drug administration and pharmacological effects of drugs. Action, use, dosage ranges, routes of administration, side effects, contraindications and nursing implications are emphasized, including skills needed for safe and accurate drug administration. Routes of administration include oral, inhalation, topical, nasal/eye/ear instillation, vaginal, rectal, intramuscular, subcutaneous, and intradermal.

Total Credits 8

Total Hours 165

Pre/Corequisites

Prerequisite	MNT 130 Behavioral Science
Corequisite	MNT 190 Therapeutic Communication
Prerequisite	PSY 120 Developmental Psychology

MNT 180 Technical Health Skills II

Description This course serves to provide and reinforce the technical nursing skills essential for the role of the Mental Health Technician with an emphasis on infection control, safety, and documentation. It also includes the advance skills related to ostomy care, catheterization care, oxygen, suctioning, and care of clients receiving intravenous infusion therapy. Supervised skills labs assist the student in learning

and practicing the skills and supervised clinical provide opportunities to apply those skills. The role of the Mental Health Technician is emphasized.

Total Credits 5

Total Hours 135

Pre/Corequisites

Prerequisite	MNT 140 Technical Health Skills I
Corequisite	MNT 170 Pharmacology & Drug Administration
Corequisite	MNT 200 Psychiatric Intervention

MNT 190 Therapeutic Communication

Description This course aims to enhance participants' ability to communicate effectively, empathetically, and ethically in therapeutic settings, fostering positive relationships and improving outcomes for individuals receiving support and care. Includes training in de-escalation techniques and management of aggressive behavior and certification in MOAB.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	MNT 130 Behavioral Science
Prerequisite	PSY 120 Developmental Psychology
Corequisite	MNT 170 Pharmacology & Drug Administration

MNT 200 Psychiatric Interventions

Description This course introduces the basic concepts of psychiatric/mental health and the student’s role in working with clients in the mental health setting. Concepts include principles of basic communication and coping skills, safety measures in working with clients in the mental health setting, deviations of mental and social health, correlations of symptoms with clinical syndromes, integration of mental disorders with therapeutic nursing principles, treatment, and rehabilitation interventions, and the clients’ responses to medication. This course focuses on the development of therapeutic communication skills. The clinical component includes supervised clinical instruction in applying the concepts in a variety of treatment programs. Clinical instruction also includes application of previously acquired technical skills

demonstrating knowledge and performance of simple nursing principles, safe drug administration, and the mental health technician's role in the treatment and rehabilitation of clients with both mental and physical illness.

Total Credits 8

Total Hours 210

Pre/Corequisites

Prerequisite	PSY 120 Developmental Psychology
Prerequisite	MNT 130 Behavioral Science
Prerequisite	MNT 120 Understanding Mental illness
Corequisite	MNT 180 Technical Skills II

MTH Math Elective

Description This is a place holder course for math electives. To fulfill this elective, students may choose between MTH 108 Contemporary Math, MTH 107 Contemporary Math with Corequisite, MTH 112 College Algebra, MTH 110 College Algebra with Corequisite, MTH 119 Elementary Statistic with Corequisite

Total Credits 3

Total Hours 45

MTH 107 Contemporary Math with Corequisite

Description This course is designed to provide a deep understanding of mathematical concepts and their real-world applications in today's society. Through a collection of mathematical topics and applications, students will explore how contemporary mathematical thinking is used in decision-making processes across various fields. The course emphasizes practical problem-solving, critical thinking, and mathematical literacy, equipping students with the skills needed to tackle everyday challenges and succeed in their future careers. Topics may include financial mathematics, probability, statistics, voting systems, and graph theory, all of which illustrate the vital role mathematics plays in modern life.

The corequisite component offers targeted support, ensuring that students strengthen prerequisite skills while mastering new concepts.

By the end of the course, students will gain confidence in using mathematical reasoning to analyze and solve real-world problems, enhancing their ability to make informed decisions both personally and professionally.

Total Credits 5

Total Hours 75

MTH 108 Contemporary Math

Description This course is designed to provide a deep understanding of mathematical concepts and their real-world applications for today's society. It is a collection of applications of mathematics illustrating how contemporary mathematical thinking is used in the decision-making process. The course focuses on practical problem-solving, critical thinking, and mathematical literacy that you can use in your everyday life and future career.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite: Appropriate Placement score of: Math ACT: 19 or higher or Math SAT: 510 or higher, or ALEKS PPL: 30 or higher, or Accuplacer QAS: 255 or higher, or HS GPA and Course Grade: 3.00 cumulative GPA (unweighted) and C- or higher in Second Semester Algebra 2 or Integrated Math 3, or Institutional Measure* (including professional discretion)

MTH 110 College Algebra with Corequisite

Description This course is designed to develop students' understanding of fundamental algebraic concepts while providing additional support through a corequisite learning model. The primary focus is on key topics such as Equations and Inequalities; Functions and Graphs; Polynomial and Rational Functions; Exponential and Logarithmic Functions; Systems of Equations and Inequalities; Matrices and Determinants. The corequisite component integrates just-in-time support to reinforce essential prerequisite skills, ensuring students gain the confidence and knowledge to successfully master college-level algebra. This approach is ideal for students needing extra guidance while working through the standard curriculum, offering real-time remediation and contextualized practice. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as MAT 1010).

Total Credits 5

Total Hours 75

MTH 111 College Algebra with Review

Description This course is an introduction of algebraic functions and some transcendental functions with application in business and life, natural and social sciences. Topics include solving equations, zeros, rational functions, matrices, exponentials and logarithms and systems. Additional topics are included as time permits. Students must furnish their own TI-83 or TI- 83 PLUS graphing calculators.

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	MTH 102 Intermediate Algebra with Review

MTH 112 College Algebra

Description This course will enable the student to use and interpret the mathematical symbols and notation relating to functions. The student will analyze the graphs of various mathematical functions with the assistance of a graphing utility, including polynomial, rational, root, absolute value, logarithmic and exponential functions, and solve related equations and inequalities, including systems of equations and inequalities. The student will use graphical analysis and equation solving in the context of word problems. Topics include Equations and Inequalities; Functions and Graphs; Polynomial and Rational Functions; Exponential and Logarithmic Functions; Systems of Equations and Inequalities; Matrices and Determinants. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as MAT 1010).

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	Appropriate Placement Score of: Math ACT: 22 or higher, or Math SAT: 540 or higher, or ALEKS PPL: 46 or higher, or Accuplacer QAS: 263 or higher, or HS GPA and Course Grade: 3.25 cumulative GPA (unweighted) and B- or higher in Second semester Algebra 2 or Integrated Math 3, or Institutional Measure* (including professional discretion)

MTH 113 Trigonometry

Description This course will enable the student to identify and manipulate trigonometric functions, solve triangles, use and prove identities, solve trigonometric equations, use and apply vectors to real-life models, and use complex numbers and polar coordinates. Topics include Angles and the Trigonometric Functions; Graphs of the Trigonometric Functions; Inverse Trigonometric Functions; Trigonometric Identities; Laws of Sines and Cosines; Vectors; Complex Numbers, Polar Coordinates and Parametric Equations. The learning outcomes and competencies detailed in this outline, meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as MAT 1030)

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite MTH 111 College Algebra with Review OR MTH 112 College Algebra

MTH 115 Pre-Calculus Mathematics

Description This course will enable the student to develop and apply models using linear, polynomial, rational, logarithmic, exponential, and trigonometric functions. The successful student will be able to identify and manipulate functions, solve equations, prove trigonometric identities, solve triangles, and use polar coordinates. Topics include Equations and Inequalities; Functions and Graphs; Polynomial and Rational Functions; Exponential and Logarithmic Functions; Systems of Equations and Inequalities; Matrices and Determinants; Angles and the Trigonometric Functions; Graphs of the Trigonometric Functions; Inverse Trigonometric Functions; Trigonometric Identities; Laws of Sines and Cosines; Vectors; Complex Numbers, Polar Coordinates and Parametric Equations.

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite MTH 101 Intermediate Algebra OR MTH 102 Intermediate Algebra with Review OR MTH 105 PACER Mathematics III

MTH 119 Elementary Statistics with Corequisite

Description This course introduces students to the fundamental concepts of statistics, with a focus on data collection, analysis, interpretation, and decision-making. It covers essential topics such as appropriate sampling techniques, organizing and summarizing data with graphs and tables, calculating descriptive statistics, and identifying common misuses of statistics. Students will also learn to assess risk using probability concepts and perform statistical inference through confidence

intervals and hypothesis testing, enabling them to make informed decisions about means and proportions.

Topics covered include Data Collection, Organizing and Summarizing Data, Numerically Summarizing Data, Describing the Relation between Two Variables, Probability, Discrete Probability Distributions, The Normal Probability Distribution, Sampling Distributions, Estimating the Value of a Parameter, Hypothesis Tests Regarding a Parameter, and Inferences on Two Samples.

The corequisite component offers additional support to ensure that students develop the foundational skills needed for success in elementary statistics. By the end of the course, students will be able to apply statistical methods in various real-world scenarios, enhancing their problem-solving abilities and critical thinking skills.

Total Credits 5

Total Hours 75

MTH 120 Elementary Statistics

Description This course will enable the student to collect data by appropriate sampling techniques, summarize data with graphs and tables, calculate descriptive statistics, identify misuses of statistics, assess risk using concepts of probability, estimate and make decisions about means and proportions through the use of confidence intervals and hypothesis testing, and perform linear regression. Topics include Data Collection; Organizing and Summarizing Data; Numerically Summarizing Data; Describing the Relation between Two Variables; Probability; Discrete Probability Distributions; The Normal Probability Distribution; Sampling Distributions; Estimating the Value of a Parameter; Hypothesis Tests Regarding A Parameter, and Inferences on Two Samples. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as MAT 1020).

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite Math ACT: 19 or higher, or Math SAT: 510 or higher, or ALEKS PPL: 30 or higher, or Accuplacer QAS: 255 or higher, or HS GPA and Course Grade: 3.00 cumulative GPA (unweighted) and C- or higher in Second Semester Algebra 2 or Integrated Math 3, or Institutional Measure* (including professional discretion)

MTH 121 Elementary Statistics Lab with Excel

Description Using Excel to construct Frequency Tables & Histograms, compute and explore Measures of Tendency. Sampling Distributions, Confidence Intervals, and Hypotheses testing. This course requires that students have MICROSOFT EXCEL 97 or greater.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite MTH 120 Elementary Statistics

MTH 125 Calculus I

Description This course will enable the students to solve problems involving limits, derivatives and some types of definite and indefinite integrals both analytically and graphically and use them in physical applications. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as MAT 2010).

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite MTH 112 College Algebra and MTH 113 Trigonometry OR MTH 115 Pre-Calculus Mathematics

MTH 150 Calculus II

Description This course will enable the student to understand applications and methods of integration, improper integrals, convergence and divergence of infinite series, graphs of conic sections, the polar coordinate system, parametric equations, and linear algebra

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite MTH 125 Calculus I

MUS 110 Music Appreciation

Description This course is designed for non-music majors. A background in music is not necessary for enrollment. Emphasis is placed on the development of competence in listening to music through the study of the sources, mediums, elements of music, musical forms, composers, and periods of music

Total Credits 3

Total Hours 45

NDT 100 Penetrant Inspection

Description In this course students will master the competencies associated with Liquid Penetrant testing at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

NDT 101 Magnetic Particle Testing

Description In this course students will master the competencies associated with the Magnetic Particle Testing method at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite NDT 106 NDT Formulations & Calculations

NDT 102 Radiation Safety

Description In this course students will master the competencies associated with Radiation Safety. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT), Nuclear Regulatory Commission, and the State of Kansas. Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	NDT 106 NDT Formulations & Calculations

NDT 103 Radiographic Testing Level II

Description In this course students will master the competencies associated with Radiographic Testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite	NDT 107 Radiographic Testing Level I

NDT 106 Formulations and Calculations

Description Upon completion of this course, students will acquire a thorough comprehension of the formulas and calculations utilized in the realm of Magnetic Particle Inspections, Ultrasonic Inspections, Eddy Current Inspections and Radiography. Furthermore, they will be equipped with the skills necessary to effectively apply these formulas and calculations in practical situations.

Total Credits 2

Total Hours 30

NDT 107 Radiographic Testing Level I

Description 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.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite	NDT 102 Radiation Safety
Prerequisite	NDT 106 Formulations & Calculations

NDT 110 Eddy Current Level I

Description In this course students will master the competencies associated with electromagnetic (Eddy Current) 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.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite NDT 106 Formulations & Calculations

NDT 111 Eddy Current Level II

Description In this course students will master the competencies associated with electromagnetic (Eddy Current) testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite NDT 110 Eddy Current Level I

NDT 112 Ultrasonic Testing Method Level I

Description In this course, students will master the competencies associated with Ultrasonic Testing Methods at Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite NDT 106 Formulations & Calculations

NDT 113 Ultrasonic Testing Method Level I

Description In this course, students will master the competencies associated with Ultrasonic Testing Methods at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 3

Total Hours 40

Pre/Corequisites

Prerequisite NDT 112 Ultrasonic Testing Method Level I

NDT 114 Visual Inspection

Description In this course, students will master the competencies associated with Visual Inspection. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work will parallel lecture materials from the classroom.

Total Credits 2

Total Hours 30

NDT 117 Assembly Overview for NDT

Description This course is designed to provide the NDT student with a basic overview of aircraft assembly including both composite and sheet metal assembly and inspection techniques.

Total Credits 3

Total Hours 45

NDT 123 Advanced Ultrasonic Testing Methods

Description This course will provide students with basic knowledge and skills to utilize specific ultrasonic testing techniques to include C-Scan, Phased Array, Bond Testing and Time of Flight Diffraction in the manufacturing, aerospace, transportation, energy, and refinery environment. Students will learn to inspect and evaluate various materials including metallic welded components and composites. Students will understand the basic elements of each technique and will demonstrate this understanding through written and practical laboratory examinations.

Total Credits 5

Total Hours 80

Pre/Corequisites

Prerequisite NDT 113 Ultrasonic Testing level II

OPM 100 Lean Sigma

Description This course will teach students the basics of both Lean and Six Sigma and how these problem-solving methodologies apply to manufacturing and service organizations. Students completing this course will be better prepared for real business world issues and have the ability to apply these concepts and tools at a basic level.

Total Credits 3

Total Hours 45

OPM 105 Operations Management for Organizational Success

Description Operations Management introduces and applies the components of the continuous improvement philosophy and process to the operations of organizations. The study of dynamic management involvement and the use of continuous evaluation tools are reviewed and applied. These include applied management techniques and statistical measures of business processes.

Total Credits 3

Total Hours 45

OPM 110 Introduction to Supply Chain Management

Description Supply Chain Management introduces the building blocks of Supply Chain Strategy and the relationship with SC corporate strategy. Defines the elements of Supply Chain Management, including the importance of collaboration and partnering in a competitive business environment. Discusses the need for

measures to manage the business and how the financial aspects are affected by SCM. Discusses outsourcing and why companies outsource to remain competitive.

Total Credits 3

Total Hours 45

OPM 115 Introduction to Project Management

Description This course focuses on a holistic approach to project management. The content deals with planning, scheduling, organizing, and controlling projects for example, product development, construction, information systems, new businesses, and special events. The course includes major topics of Strategy, Priorities, Organization, Project Tools, and Leadership. Primary class emphasis is on the project management process and tools. Project management is becoming more important in today's world. Mastery of key tools and concepts could give you a significant competitive advantage in the marketplace.

Total Credits 3

Total Hours 45

ORI 100 On Deck at Tech

Description New Student Orientation will provide students with information related to academic and campus resources as well as student support services that will help them acclimate to the college environment and get the most out of their college experience. This course helps students become familiar with the college's academic expectations, available student support, and institutional processes prior to the first day of class to achieve success in the first semester and beyond. Students are also able to make connections with their peers and learn the different ways to engage across campus to maximize their college experience.

Total Credits 1

Total Hours 15

PCT 100 EKG for Healthcare Providers

Description Focus on the specialized procedures associated with the cardiovascular system. Students will perform electrocardiograms. Course also serves as an introduction to basic dysrhythmia and the skills necessary to recognize normal from abnormal in

an emergency. Specific attention is given to patient significance and possible early intervention for each dysrhythmia. EKG rhythm strips, and exercises are provided for student recognition and practice.

Total Credits 4

Total Hours 75

PCT 110 Phlebotomy and Laboratory Procedures

Description This course addresses the role and function of the professional in the clinical laboratory setting. Topics include safety, Clinical Laboratory Improvement Act of 1988 (CLIA-88) government regulations and quality assurance in the laboratory. Students learn concepts and perform procedures in the different departments of the laboratory, including specimen collection and performance of CLIA-88 low- and/or moderate-complexity testing. Students demonstrate competencies in a wide variety of techniques used to collect, process, and test specimens.

Total Credits 4

Total Hours 90

PCT 130 Patient Care Concepts and Technical Skills

Description This course focuses on the primary knowledge and skills needed to become a patient care technician. Preparing graduates to work in all facets of healthcare through instruction of core healthcare topics and procedures. This course provides an overview of medical laws, ethics, communication, cultural consideration, working with diverse populations, patient rights, body structure and function, growth and development, medical terminology, and pharmacology. Technical skills teach safety, infection control, patient assessment, vital signs, charting and documentation, patient monitoring and reporting, patient hygiene, fluids and nutrition, elimination and respiration, and care of surgical patients. Plus, advanced skills for PCT's in specimen collection, electrocardiography interpretations, and special laboratory procedures.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	ALH 101: Medical Terminology
Prerequisite	GRA 101: Certified Nurse Aide
Prerequisite	PCT 110: Phlebotomy and Lab Procedures
Prerequisite	PCT 100: EKG for Healthcare Providers

Corequisite	CPR 001: CPR for Healthcare Providers

PDV 115 Work Ethics

Description This course focuses on applying ethical principles in the manufacturing industry, preparing students to navigate the ethical challenges they will encounter in their professional careers. Emphasizing professionalism, reliability, teamwork, and decision-making, students will explore how these values impact workplace dynamics, productivity, and safety. Through case studies, discussions, and practical exercises, students will develop the skills to navigate ethical dilemmas and positively contribute to a diverse and dynamic manufacturing environment.

Total Credits 2

Total Hours 30

PED 110 Lifetime Fitness

Description 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.

Total Credits 1

Total Hours 15

PED 120 Introduction to the Athletic Training Profession

Description This course covers introductory principles relating to the profession of athletic training. Students will study organizational and professional responsibilities, injury/illness prevention techniques, characteristics of sports injuries, immediate care, treatment/rehabilitation, and various sports injuries.

Total Credits 3

Total Hours 45

PHL 110 Ethics

Description 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.

Total Credits 3

Total Hours 45

PHL 115 Logic

Description This course deals with the uses of logical concepts and techniques to evaluate and criticize reasoning. Studies some elementary systems of formal logic. Arguments evaluated are drawn from such diverse fields as law, science, politics, religion, and advertising.

Total Credits 3

Total Hours 45

PHR 105 Negotiations and Relationship Management

Description This course is designed to help students understand the principles, strategies and tactics of effective negotiation and relationship management. Students will learn to identify and assess negotiation variables, develop an effective negotiation plan and implement various strategies and tactics to ethically resolve conflicts and interpersonal differences.

Total Credits 3

Total Hours 45

PHS 110 Physical Science

Description A non-technical course intended for students who are majoring in fields other than science. The application of scientific knowledge to daily life activities is emphasized by examining the fundamental principles in physics, chemistry, geology and astronomy utilizing the scientific method.

Total Credits 5

Total Hours 105

PHS 115 Introductory Astronomy

Description Introduction to Astronomy topics include fundamental concepts (planetary, stellar, and lunar motion; gravitation; light and telescopes); solar system 1 (Earth, Moon, Mercury, Venus, and Mars); solar system 2 (Jupiter and satellites, Saturn and satellites, outer planets); stars (nature of stars, birth, evolution and death of stars, neutron stars, black holes); universe (galaxies, quasars, blazars, cosmology).

Total Credits 5

Total Hours 105

PHS 120 General Physics I

Description Topics include mechanics — linear motion, rotational motion, force, work, energy, momentum and conservation principles; heat-temperature, ideal gas, eating as a form of energy, first law of thermodynamics, second law of thermodynamics and entropy; and wave motion — simple harmonic motion, elasticity and the wave equation. This class is designed for students who need five hours of physics without calculus.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite MTH 112 College Algebra

PHS 125 General Physics II

Description A continuation of PHS 120 General Physics I. Topics include electricity and magnetism, electric potential, current electric power, magnetic field and induction; optics nature of light and wave optics; and modern physics special relativity, atomic structure, quantum mechanics and radioactivity. This class is taught in the spring of the year

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite PHS 120 General Physics I

PLT 104 Introduction to Aviation

Description This course will expose the student to knowledge areas of emphasis pertaining to FAA regulations, accident reporting, chart usage, navigation, radio communications, weather, collision avoidance, aerodynamics, systems, weight and balance, stall awareness, aeronautical decision making, preflight and ground operations. Successful completion of this course will provide the student with all the information necessary to successfully pass the required FAA written exam for Airplane Single Engine Land (ASEL) and be adequately prepared for the oral portion of the required practical test.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite PLT 112 Private Pilot Flight Lab

PLT 112 Private Pilot Flight Lab

Description This course will enable the student to develop the knowledge and skills required to safely exercise the privileges and responsibilities of a Private Pilot and pass the Private Pilot Practical Flight Exam. Course content includes instruction in aerodynamics, aircraft systems, FAA regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic flight physiology, and flight safety.

Total Credits 3

Total Hours 90

Pre/Corequisites

Corequisite PLT 104 Introduction to Aviation

PLT 114 Private Pilot Rating Transfer Lab

Description Private Pilot Rating Transfer Lab is a course designed to facilitate students joining the WSU Tech Professional Pilot program who have previously received a Private Pilot rating. This lab is focused on ensuring that students meet the current standards outlined in the Airman Certification Standards (ACS) for Airplane Single Engine Land (ASEL).

Total Credits 6

Total Hours 180

PLT 116 Aviation Weather

Description This course entails the study of weather hazards, meteorological flight planning, aviation weather equipment and human factors in weather flying safety. Elements of the atmosphere with emphasis on those processes that affect the global atmospheric circulation, and meteorology as it applies to the operation of aircraft with emphasis on observation of weather elements and interpretation of flight planning weather information will be emphasized.

Total Credits 3

Total Hours 45

PLT 120 Instrument Regulations and Procedures

Description This course will provide the student with a detailed study of the regulations, procedures, publications, and weather considerations necessary for operating IFR in the national airspace system. Terminal and enroute procedures will be studied in detail. Successful completion of this course will provide the student with all the information necessary to successfully pass the required FAA written exam and be adequately prepared for the oral portion of the practical test required.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite	PLT 128 Instrument Flight Lab
Prerequisite	PLT 112 Private Pilot Flight Lab

PLT 126 Aviation Standardization and Career Paths

Description This course will begin with a segment of standardization training for the PLT program including Cessna 172 systems, Operations Manual, and checklist standardization. Additionally, this course will include Professional Pilot program standardization to include the Operations Manual, Student Learning Outcomes, and Pilot Program Operations Manual. The second portion of the course will be an introductory look at Professional Pilot career paths, defining facets of the aviation industry and looking at opportunities for students as they graduate the program.

Total Credits 2

Total Hours 30

PLT 128 Instrumental Flight Lab

Description This course will introduce the student to the skills required to fly the airplane solely by referencing the instruments in the panel. Performing the four basics of flight, timed turns, unusual attitude recovery, navigation by VOR and GPS, performing both precision and non-precision approaches, as well as planning and executing cross country flight will prepare the student to successfully meet the standards set forth by the FAA to earn the Instrument Rating.

Total Credits 3

Total Hours 90

Pre/Corequisites

Corequisite	PLT 120 Instrument Regulations and Procedures
Prerequisite	PLT 112 Private Pilot Flight Lab

PLT 129 Part 61 Private Pilot and Instrument Rating Transfer Lab

Description Private Pilot and Instrument Rating Transfer Lab is a course designed to facilitate the transfer of both a private pilot rating and an instrument rating from other jurisdictions to the WSU Tech Professional Pilot program. This lab focuses on evaluating students according to the current standards outlined in the Airman Certification Standards (ACS) for Airplane Single Engine Land (ASEL) and Airman Certification Standards (ACS) Instrument Rating.

Total Credits 12

Total Hours 360

PLT 130 Aerodynamics and Aircraft Performance

Description In this course, students will explore the fundamental principles of airplane aerodynamics and aircraft performance. Emphasis will be placed on understanding how forces such as lift, weight, thrust, and drag influence flight. Students will analyze aircraft stability, control, and the performance characteristics of various aircraft types, including low and high-speed aerodynamics. This prepares students for the unique challenges faced by aircraft designers and understanding the reasons for aircraft design.

Total Credits 2

Total Hours 30

PLT 132 Aviation Safety and Human Factors

Description This course provides the student with a detailed introduction into aspects of aviation safety, aviation safety programs, risk management, and the associated components of pilot psychology, physiology, human factors, and accident review and investigation. This course also introduces the student to issues influencing human performance in the complex operational aviation environments. Theory and practical applications of cognitive processing, decision-making, interpersonal interaction and communication will be presented. This course also provides an introduction to design elements intended to optimize man-machine interaction.

Total Credits 3

Total Hours 45

PLT 134 Aircraft Systems for Pilots

Description In this course students will learn the aircraft systems as they relate to reciprocating, turbine, and jet engines.

Total Credits 2

Total Hours 30

PLT 136 Crew Resource Management

Description This course will provide the student the opportunity to explore the many issues involved in Crew Resource Management. It will expose the student to issues involved with communication, situational awareness, pilot judgement, risk assessment and mitigation, and workload management. Students will practice various models of risk assessment and mitigation as well as learn how to properly utilize all available resources in order to conduct a safe and efficient flight both solo and as part of a crew.

Total Credits 2

Total Hours 30

PLT 144 Introduction to Commercial Flight

Description This course provides the student exposure to the aeronautical knowledge areas required by FAA regulations for a Commercial Pilot Certificate (ASEL). Successful completion of the course will provide the student with all the information necessary

to successfully pass the required FAA written exam and be adequately prepared for the oral portion of the practical test required.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite	PLT 152 Commercial Flight Lab
Prerequisite	PLT 128 Instrument Flight Lab

PLT 146 Air Traffic Control and Airspace

Description This course is designed to provide students with information about the Air Traffic Management and Control Systems (ATC) and the US National Airspace System which is critical to the success of Pilots.

Total Credits 2

Total Hours 30

PLT 152 Commercial Flight Lab

Description This course will introduce the student to all commercial maneuvers and standards. The student will also build hours towards minimum time requirements required to successfully pass the Commercial Pilot Practical Exam.

Total Credits 3

Total Hours 90

Pre/Corequisites

Corequisite	PLT 144 Introduction to Commercial Flight
Prerequisite	PLT 128 Instrument Flight Lab

PLT 154 Aviation Law and Regulations

Description In this course students will explore and apply the Federal Aviation Regulations, contained in Title 14 of the Code of Federal Regulations.

Total Credits 2

Total Hours 30

PLT 156 Multiengine Aircraft Operation

Description This course is designed to develop the knowledge and skills necessary to safely and proficiently exercise the privileges and responsibilities of a Commercial Pilot with a Multi-engine rating. Included are discussions concerning Aeronautical Decision Making of multi-engine aircraft systems, aerodynamics, Crew Resource Management, weight and balance, aircraft performance, and abnormal/emergency procedures. The course also includes a scenario - based introduction to U.S. Title 14 Code of Federal Regulations (CFR) governing common carriage commercial operations.

Total Credits 1

Total Hours 15

Pre/Corequisites

Corequisite	PLT 160 Multiengine Flight Lab
Prerequisite	PLT 128 Instrument Flight Lab

PLT 160 Multiengine Flight Lab

Description This course provides the practical experience necessary for the student to demonstrate safe operation of a multi-engine aircraft, as well as demonstrate knowledge of best single engine rate of climb (Vyse) and Minimum Control Speed (Vmc). The student will learn how to determine engine failure, demonstrate aircraft control with a simulated engine failure, and perform Instrument approaches during simulated engine failure. The tasks in this course will prepare the student to successfully pass the Multi-Engine Airplane (AMEL) exam.

Total Credits 2

Total Hours 60

Pre/Corequisites

Corequisite	PTL 156 Multiengine Aircraft Operation
Prerequisite	PLT 128 Instrument Flight Lab

PLT 168 Certified Flight Instruction

Description Provides the student with a detailed study of the responsibilities and teaching concerns of a flight instructor. The course is divided into two major sections: fundamentals of teaching and learning, including effective teaching methods, learning process, consideration of flight training syllabi, effective evaluations, and flight instructor responsibilities; the second section is concerned with the analysis of the flight maneuvers involved with Private Pilot, Commercial Pilot and Flight Instructor Certificates.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite PLT 152 Commercial Flight Lab

PLT 176 Certified Flight Instruction Lab

Description This course will provide practical teaching experience for the student during flight as they demonstrate skills flying in the right seat, teaching and demonstrating all required flight maneuvers simultaneously to successfully pass the FAA Practical Exam for Certified Flight Instructor.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite PLT 152 Commercial Flight Lab

PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration

Description This course provides an introduction to the principles of pharmacology. Emphasis is placed on nursing care related to the safe calculation and administration of medications to clients across the lifespan.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	ALH 110 Principles of Nutrition
Prerequisite	BIO 150 Human Anatomy & Physiology
Prerequisite	PSY 101 General Psychology
Prerequisite	PSY 120 Developmental Psychology
Prerequisite	PNR 136 Transition to Nursing
Corequisite	PNR 120 KSPN Foundations of Nursing
Corequisite	PNR 121 KSPN Foundations of Nursing Clinical
Corequisite	PNR 128 KSPN Nursing Care of Adults I
Corequisite	PNR 129 KSPN Nursing Care of Adults I Clinical

PNR 120 KSPN Foundations of Nursing

Description This course provides an introduction to practical nursing and roles of the practical nurse as well as profession- and client-related care concepts. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. The theoretical foundation for basic data collection and nursing skills is presented and an introduction to the nursing process provides the student with a framework for decision making.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	ALH 110 Principles of Nutrition
Prerequisite	BIO 150 Human Anatomy & Physiology
Prerequisite	PSY 101 General Psychology
Prerequisite	PSY 120 Developmental Psychology
Prerequisite	PNR 136 Transition to Nursing
Corequisite	PNR 121 KSPN Foundations of Nursing Clinical
Corequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration

PNR 121 KSPN Foundations of Nursing Clinical

Description This course provides an introduction to the skills required to practice nursing. The theoretical foundation for basic data collection and nursing skills is presented and the student is given an opportunity to demonstrate these skills in a clinical laboratory setting. Students are also given an opportunity to practice application of the nursing process to client-related situations.

Total Credits 2

Total Hours 90

Pre/Corequisites

Prerequisite	ALH 110 Principles of Nutrition
Prerequisite	BIO 150 Human Anatomy & Physiology
Prerequisite	PSY 101 General Psychology
Prerequisite	PSY 120 Developmental Psychology
Prerequisite	PNR 136 Transition to Nursing
Corequisite	PNR 120 KSPN Foundations of Nursing
Corequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration

PNR 128 KSPN Nursing Care of Adults I

Description This course focuses on the care of adult clients experiencing common medical/surgical health alterations with predictable outcomes. Emphasis is placed on the care of clients with alterations in cardiac output and tissue perfusion, oxygenation, regulation and metabolism, and integument. Principles of pre-and post-operative care and IV therapy are also addressed.

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Corequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Corequisite	PNR 129 KSPN Nursing Care of Adults I Clinical

PNR 129 KSPN Nursing Care of Adults I Clinical

Description This course focuses on the care of adult clients with common medical/surgical health alterations. The clinical laboratory experience gives students the opportunity to apply theoretical concepts from Nursing Care of Adults I and implement safe client care in selected settings.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Corequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Corequisite	PNR 128 KSPN Nursing Care of Adults I

PNR 130 KSPN Maternal Child Nursing

Description This course provides an integrative, family-centered approach to the care of childbearing women, newborns, and children. Emphasis is placed on the care of the pregnant woman and newborn, normal growth and development, and common pediatric disorders.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 141 KSPN Care of Aging Adults
Corequisite	PNR 135 KSPN Mental Health Nursing
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues

PNR 131 KSPN Maternal Child Nursing Clinical

Description This course provides an integrative, family-centered approach to the care of childbearing women, newborns, and children. Students are given the opportunity to observe the uncomplicated birth process and practice postpartum care as well as care of the newborn in the clinical laboratory setting. Common pediatric diseases and the growth and development process are the focus of child-related clinical laboratory experiences.

Total Credits 1

Total Hours 45

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 141 KSPN Care of Aging Adults
Corequisite	PNR 135 KSPN Mental Health Nursing
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues

PNR 135 KSPN Mental Health Nursing

Description 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 client with a mental health disorder.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 141 KSPN Care of Aging Adults
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues

PNR 136 Transition to Nursing

Description This course is designed to provide skills to enhance the success of the practical nurse student. It will include study and test-taking skills, time and stress management, goal setting, social and cultural awareness skills, written communication, an introduction to critical thinking and the nursing process, APA format, review of PN policies and procedures, and learning in a hybrid/online format.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	ALH 110 Principles of Nutrition
Prerequisite	BIO 150 Human Anatomy & Physiology
Prerequisite	PSY 101 General Psychology
Prerequisite	PSY 120 Developmental Psychology

PNR 138 KSPN Nursing Care of Adults II

Description This course focuses on the care of adult clients experiencing common medical/surgical health alterations with predictable outcomes. Emphasis is placed on the care of clients with alterations in cognition and sensation, mobility, elimination, immunity and hematology, and reproduction. Principles related to emergency preparedness are also addressed.

Total Credits 5

Total Hours 75

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 135 KSPN Mental Health Nursing
Corequisite	PNR 141 KSPN Care of Aging Adults
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues

PNR 139 KSPN Nursing Care of Adults II Clinical

Description This course focuses on the care of adult clients with common medical/surgical health problems. The clinical laboratory experience provides the student with an opportunity to build on the theoretical concepts from Nursing Care of Adults I and II and implement safe client care in selected settings. Students are given the opportunity to practice leadership skills while managing a caseload of clients.

Total Credits 2

Total Hours 90

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 135 KSPN Mental Health Nursing
Corequisite	PNR 141 KSPN Care of Aging Adults
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues

PNR 141 KSPN Care of Aging Adults

Description This course is designed to explore issues related to aging adults. Course content addresses the impact of ageism, alterations in physiological and psychosocial functioning, and the role of the practical nurse in caring for older adult clients across a continuum of care.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I

Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 166 KSPN Leadership, Roles, and Issues
Corequisite	PNR 135 KSPN Mental Health Nursing

PNR 166 KSPN Leadership, Roles, and Issues

Description This course provides orientation to leadership roles of the LPN and related responsibilities. It will introduce issues the students will encounter in the workplace.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinical
Prerequisite	PNR 119 KSPN Fundamentals of Pharmacology and Safe Medication Administration
Prerequisite	PNR 128 KSPN Nursing Care of Adults I
Prerequisite	PNR 129 KSPN Nursing Care of Adults I Clinical
Corequisite	PNR 138 KSPN Nursing Care of Adults II
Corequisite	PNR 139 KSPN Nursing Care of Adults II Clinical
Corequisite	PNR 130 KSPN Maternal Child Nursing
Corequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Corequisite	PNR 135 KSPN Mental Health Nursing
Corequisite	PNR 141 KSPN Care of Aging Adults

PNR 170 Healthcare Practice Management

Description This course explores the overall perspective of health service organizations and the associated managerial role. The student will be able to utilize practical building blocks for managerial growth. The student will discuss the involvement of future roles for healthcare providers and outside forces that impact management of a healthcare component.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinicals
Prerequisite	PNR 122 KSPN Pharmacology
Prerequisite	PNR 123 KSPN Medical Surgical Nursing I
Prerequisite	PNR 124 KSPN Medical Surgical Nursing I Clinical
Prerequisite	PNR 126 KSPN Medical Surgical Nursing II
Prerequisite	PNR 127 KSPN Medical Surgical Nursing II Clinical
Prerequisite	PNR 130 KSPN Maternal Child Nursing
Prerequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Prerequisite	PNR 132 KSPN Gerontology Nursing
Prerequisite	PNR 134 Role Development
Prerequisite	PNR 135 KSPN Mental Health Nursing
Prerequisite	PNR 136 Transition to Nursing

PNR 175 Healthcare Management Research

Description This course explores management issues, funding and actual provision of healthcare by various entities. The student will research and discuss the role of management in healthcare. The student will complete projects that expand on specific areas of individual interest in administration and management.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinicals
Prerequisite	PNR 122 KSPN Pharmacology
Prerequisite	PNR 123 KSPN Medical Surgical Nursing I
Prerequisite	PNR 124 KSPN Medical Surgical Nursing I Clinical
Prerequisite	PNR 126 KSPN Medical Surgical Nursing II
Prerequisite	PNR 127 KSPN Medical Surgical Nursing II Clinical
Prerequisite	PNR 130 KSPN Maternal Child Nursing
Prerequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Prerequisite	PNR 132 KSPN Gerontology Nursing

Prerequisite	PNR 134 Role Development
Prerequisite	PNR 135 KSPN Mental Health Nursing
Prerequisite	PNR 136 Transition to Nursing

PNR 180 Healthcare Issues

Description This course explores current issues in healthcare and the impact of those issues on society. The student will discuss specific pieces of legislation, regulatory initiatives, public concern issues, funding and actual provision of healthcare by various entities. The student will complete projects that expand on specific areas of individual interest.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	PNR 120 KSPN Foundations of Nursing
Prerequisite	PNR 121 KSPN Foundations of Nursing Clinicals
Prerequisite	PNR 122 KSPN Pharmacology
Prerequisite	PNR 123 KSPN Medical Surgical Nursing I
Prerequisite	PNR 124 KSPN Medical Surgical Nursing I Clinical
Prerequisite	PNR 126 KSPN Medical Surgical Nursing II
Prerequisite	PNR 127 KSPN Medical Surgical Nursing II Clinical
Prerequisite	PNR 130 KSPN Maternal Child Nursing
Prerequisite	PNR 131 KSPN Maternal Child Nursing Clinical
Prerequisite	PNR 132 KSPN Gerontology Nursing
Prerequisite	PNR 134 Role Development
Prerequisite	PNR 135 KSPN Mental Health Nursing
Prerequisite	PNR 136 Transition to Nursing

POL 101 American Government

Description A general study of the development, structure and functions of the American National Government. Topics to be studied include an introduction to government, principles of constitutionalism and federalism, political parties and political behavior, the Presidency, congress, the judiciary and the federal bureaucracy, of specific emphasis is an analysis of decision-making in government, public participation and influence in government as well as a study of specific problems concerning the operation of the federal government.

Total Credits 3

Total Hours 45

PSS 100 Six Sigma Yellow Belt

Description Six Sigma Yellow Belt training introduces the fundamentals of Six Sigma to individual process owners and operators who can then act as team members on Six Sigma projects. Not only do these Yellow Belts gain the skills necessary to identify, monitor and control profit-eating practices in their own processes, but they are also prepared to feed that information to Green Belts and Black Belts working on larger system projects.

Total Credits 1

Total Hours 15

PSS 101 Six Sigma Green Belt Methods

Description This course is designed to help the adult learner understand Six Sigma concepts and be able to apply their knowledge to a real problem. It also addresses the challenges of change management and data management.

Total Credits 3

Total Hours 45

PSS 105 Six Sigma Green Belt Statistics

Description Students develop an in-depth understanding of how computers and statistical software are essential components in the business world and society in general for exploring data in depth, data simulation, screening data for errors, manipulating data, performing transformations, with focus on the use of the computer and statistical software as a valuable productivity and data analysis tool.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite PSS101 Six Sigma Green Belt Methods

PSS 115 Six Sigma Black Belt Methods

Description The Six Sigma Black Belt Methods incorporates data and statistical analysis into a project-based workflow that allows businesses to make intelligent decisions about where and how to incorporate improvements.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	PSS101 Six Sigma Green Belt Methods
Prerequisite	PSS105 Six Sigma Green Belt Statistics

PSS 120 Six Sigma Black Belt Experimentation & Transfer Function

Description Students will learn how to manipulate data with statistical tools to transform it into valuable information (numeric and/or graphic). This data will be incorporated into a project.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	PSS115 Six Sigma Black Belt Methods

PST 010 Private Security Officer Training – Basic

Description The Basic Private Security Officer Training (Basic PSOT) course is a 16-hour course designed to train Security Officers in basic duties and requirements of a security officer in compliance with the Wichita City Code.

Total Hours 16

PST 110 Private Security Officer Training – Basic

Description The Basic Private Security Officer Training (Basic PSOT) course is a 45-hour course designed to train Security Officers in basic duties and requirements of a security officer in compliance with the Wichita City Code.

Total Credits 3

Total Hours 45

PSY 101 General Psychology

Description A general introduction to the scientific study of behavior and mental processes to enable students to apply the knowledge they gain about the history of psychology, psychological perspectives, biological bases of behavior, sensation and perception, learning, cognition, intelligence, motivation, development, personality, psychological disorders and treatments of disorders, social psychology and critical thinking skills to enhance the quality of his/her life as he/she interacts with others and the environment.

Total Credits 3

Total Hours 45

PSY 110 Child Psychology

Description This course is a scientific study of child behavior and development from the prenatal period through adolescence. This includes special emphasis on topics of physical development, cognitive and language development, social-emotional development and attachment, socialization, and practical applications of discipline and child rearing.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite PSY 101 General Psychology

PSY 120 Developmental Psychology

Description A study of individual development from conception through death to enable students to apply the knowledge they gain about the general areas of biological, neurological, physical, cognitive, social, emotional and personality development at each stage of life to enhance more meaningful interactions with others and better understanding of his/herself.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite PSY 101 General Psychology

PSY 135 Social Science Prospectus

Description The social sciences provide various perspectives on how we view the behavior of individuals and society. The predominant research of individuals, families, and larger society is done through the scope of the social sciences, particularly psychology, geography, and sociology. In this class, students will examine the relevance of social science within historical and current issues, develop evidence-based questions about human behavior, and explore prevalent research approaches and their findings.

Total Credits 3

Total Hours 45

QAI 135 Quality Assurance Orientation

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

Total Credits 1

Total Hours 15

QAI 145 Quality Management

Description This course provides an overview of quality management principles and practices within organizations. Students will explore key concepts such as total quality management (TQM), continuous improvement, quality assurance, quality control, ISO 9001, AS9100, quality auditing and compliance standards. Students will learn to apply various quality tools and methodologies, including Six Sigma, Lean principles, and statistical process control (SPC).

Total Credits 3

Total Hours 45

QAI 155 Quality Documentation and Traceability

Description This course provides a thorough understanding of the principles and practices of quality documentation and traceability within organizations. Participants will learn the importance of maintaining accurate, accessible, and organized documentation as a key component of effective quality management systems (QMS). Students will explore best practices for creating, managing, and controlling documentation to ensure compliance with industry standards and regulatory requirements. Additionally, the course will focus on traceability concepts, enabling participants to understand the significance of tracking materials, processes, and product information throughout the supply chain and production lifecycle.

Total Credits 3

Total Hours 45

QAI 165 Materials Testing and Analysis

Description This course offers an exploration of materials testing and analysis techniques essential for evaluating the properties and performance of various materials used in engineering and manufacturing. Participants will gain an understanding of the fundamental principles of materials science, as well as the methodologies employed to assess material characteristics and ensure quality and compliance with industry standards.

The course covers a wide range of topics, including mechanical testing, chemical analysis, thermal analysis, and non-destructive testing methods. Students will learn how to select appropriate testing methods based on material types and intended applications, and how to interpret test results to inform design and manufacturing decisions.

Through hands-on laboratory exercises, demonstrations, and case studies, participants will develop practical skills in conducting tests, analyzing data, and applying results to solve real-world problems in materials selection and quality assurance.

Total Credits 3

Total Hours 75

QAI 175 Quality Assurance Inspection Internship I

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site’s work, mission, and audience, how these relate to their academic study, as well as the organization’s position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10
Prerequisite	AVC 112 Blueprint Reading
Prerequisite	QAI 135 Quality Assurance Orientation
Prerequisite	QAI 145 Quality Management
Prerequisite	MMG 140 Metrology or TFF 120 Metrology
Prerequisite	QAI 155 Quality Documentation and Traceability
Prerequisite	PDV 115 Work Ethics

QAI 185 Statistical Process Control

Description This course provides an introduction to Statistical Process Control (SPC) as a vital tool for improving quality and operational efficiency in manufacturing and service environments. Participants will learn how to utilize statistical methods to monitor and control processes, ensuring they operate at their full potential and produce consistent, high-quality outputs.

Total Credits 1

Total Hours 15

QAI 195 Root Cause Analysis

Description This course provides a thorough understanding of Root Cause Analysis (RCA) methodologies and techniques designed to identify, analyze, and resolve the underlying causes of problems within organizations. Participants will learn the importance of RCA in improving processes, enhancing product quality, and preventing recurrence of issues.

Course covers various RCA tools and techniques, including the 5 Whys, Fishbone (Ishikawa) diagrams, and Fault Tree Analysis. Students will engage in practical exercises and case studies to apply these methodologies in real-world scenarios, fostering critical thinking and problem-solving skills.

Total Credits 1

Total Hours 15

QAI 201 Geometric Dimensioning & Tolerance

Description The Geometric dimensioning and tolerance course is an in-depth study designed to develop a basic working knowledge in geometric dimensioning and tolerancing (GD&T). It is delivered per the ASME Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel

need to know in order to work in an industrial environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color animated graphics, video clips and plastic models which allow the students to clearly understand the concepts.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite MCD 104 Blueprint Reading for Drafters or AVC 112 Aviation Blueprint Reading or MMG 113 Print reading

QAI 215 Human Factors in Manufacturing

Description This course provides an examination of the principles of human factors and ergonomics as they apply to the manufacturing industry. Participants will explore how understanding human capabilities and limitations can lead to improved safety, productivity, and overall performance in manufacturing environments.

The course covers key topics such as human-computer interaction, workplace design, task analysis, and the impact of ergonomics on employee well-being and efficiency. Students will learn to identify common human factors issues in manufacturing processes and develop strategies to mitigate risks associated with human error, enhance usability, and optimize work environments.

Total Credits 3

Total Hours 45

QAI 225 Quality Assurance Inspection Internship II

Description This course is a continuation of QAI 175 Quality Assurance Inspection I. In this course students will continue to enhance their skills as they apply knowledge learned into the classroom to the workplace. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite QAI 175 Quality Assurance Inspection Internship I

REL 101 New Testament

Description This course is an introduction to history, literature and culture that gave rise to the New Testament from an objective and analytical approach.

Total Credits 3

Total Hours 45

REL 130 World Religions

Description This course provides students an overview of the major world religions, prepares students to identify the differences and similarities between the major tenants of these religions, and helps students develop an appreciation and understanding of religious diversity.

Total Credits 3

Total Hours 45

ROB 100 Introduction to Robotics

Description This course explores basic robotic concepts. Studies robots in typical application environments. Topics include robot history and fundamentals, robot classification, power sources, robot applications in the workplace, robot control techniques, path control, end of arm tooling, robot operation and robot controllers, controller architecture in a system, robotic language programming, and human interface issues.

Total Credits 3

Total Hours 75

ROB 103 Applied Robotics Lab I

Description In this course students will learn basic robotic applications and devices utilized in automated systems. Using hands on step-by-step approach students will program different types of robots and interface the robots and controllers within parameters defined by the instructor and the application.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite ROB 104 Robotics Simulation

ROB 104 Robotics Simulation

Description This course provides the student with an introduction to robotic simulation using industry current software. Students will learn to build computer simulated models of robotic work cells.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite ROB 100 Introduction to Robotics

ROB 106 Robotics Controller Maintenance

Description This course will provide the student with basic skills and techniques used in the maintenance and repair of robotic/automated equipment.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite ROB 103 Applied Robotics Lab I

ROB 115 Introduction to Programming Robots in ROS

Description In this course students will become familiar with the basic programming languages used in Robotics, Python, Linux, and C++. Students will practice programming and applying different programs in the Robot Operating System (ROS) to help Robots move and interpret reference frames. The course will conclude with students applying their knowledge of programming languages to the design and simulation of a robot.

Total Credits 4

Total Hours 90

Pre/Corequisites

Corequisite	MTH 112 College Algebra

ROB 118 Basic Circuits

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Corequisite	MTH 112 College Algebra

ROB 120 IoT Fundamentals: Introduction to the Internet of Things

Description In this course, students learn about Internet of Things and how it enables Digital Transformation along with emerging technologies such as data analytics, artificial intelligence, and the increased attention on cybersecurity. Students will also understand the basics of Intent Based Networking that uses software-driven approach and machine learning to be able to connect and secure new devices with ease.

Total Credits 3

Total Hours 45

Pre/Corequisites

Corequisite	ROB 130 IoT Fundamentals: Connected Things

ROB 124 Robotic Navigation

Description In this course, students will learn how to properly navigate robots using ROS. Navigation allows mobile robots to move around autonomously and an essential element in multiple industrial fields including warehousing, commercial, consumer, and entertainment. Students will learn the key components of ROS Navigation and how to use it in robot projects.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite ROB 115 Introduction to Programming Robots in ROS

ROB 128 Basic PLC

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

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ROB 118 Basic Circuits

ROB 130 IoT Fundamentals: Connected Things

Description This course will prepare students with the technical and soft skills needed to ideate, design, prototype, and present the business value of an end-to-end IoT solution. The typical end-to-end solution will include sensors and actuators, gateways, wired and wireless network connections and cloud services.

Total Credits 3

Total Hours 90

Pre/Corequisites

Corequisite ROB 120 IoT Fundamentals: Introduction to the Internet of Things

ROB 134 Robotic Perception and Manipulation

Description In this course, students will learn and become competent in the concepts necessary to get a robot to perceive and manipulate objects in their environment.

This course teaches students how to utilize ROS Industrial to achieve these goals in various settings.

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite ROB 124 Robotic Navigation

ROB 138 Advanced PLC

Description This course examines types, installation and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite ROB 128 Basic PLC

ROB 140 IoT Fundamentals: Big Data Analytics

Description This course will continue to expand your skills in all aspects of IoT, focusing mainly on data analytics and Big Data Systems. It includes extensive hands-on labs to practice data acquisition from sensors and video cameras, data visualization and an introduction to Machine Learning. This path enhances the communication skills and business acumen of the students by teaching storytelling with data. It introduces the students to the field of Big Data engineering platforms. The capacity to leverage the data analytics in the IoT Solutions is strategically important for value creation and requires the development of specific data analysis skills that are extremely valuable in the market.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ROB 130 IoT Fundamentals: Connected Things

ROB 144 Machine Learning for Robotics

Description In this course students will utilize Machine Learning to get robots to recognize images, be trained in randomly simulated environments, achieve level 3 autonomy, and operationalize a robot on the CUDA platform.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ROB 134 Robot Perception and Manipulation

ROB 145 Applied Robotics Lab II

Description In this course students will expand on their experiences from Applied Robotics Lab II. Students will further enhance the robotic applications and integration of PLCs and PCs to robot controllers.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	ROB 106 Robotics Controller Maintenance

ROB 148 PLC Systems Design and Simulation

Description This course provides a more advanced study of PLCs in manufacturing including Distributed Control Systems (DCS), Supervisory Control and Data Acquisition Systems (SCADA), and advanced programming languages.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ROB 138 Advanced PLC

ROB 150 IoT Fundamentals: Security

Description The explosive growth of connected IoT devices enables the digitization of industries, but also increases the exposure to security threats. Upon completion students will be able to perform vulnerability and risk assessments, research and recommend risk mitigation strategies for common security threats in IoT systems.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ROB 140 IoT Fundamentals: Big Data Analytics

ROB 155 Advanced Industrial Workcell Programming

Description This course explores the fundamentals of work-cell integration and programming. The topics include integration of machine elements, motion control programming, and industrial control networks.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	ROB 145 Applied Robotics Lab II

ROB 170 Robotics Internship

Description The internship represents an educational strategy linking the classroom with the acquisition of knowledge in the workplace. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite	ROB 134 Robotic Perception and Manipulation
Prerequisite	ROB 145 Applied Robotics Lab II
Prerequisite	ROB 138 Advanced PLC

Prerequisite	ROB 140 IoT Fundamentals: Big Data Analytics

ROB 172 Robotics Capstone

Description In this project-based course, students will apply the skills and knowledge acquired throughout the Digital Marketing program to a real-world project. In partnership with a local non-profit organization, students will create a digital marketing strategy designed to meet the customer needs. Students will produce a critical reflection on their capstone experience demonstrating how they have addressed specific learning goals. A successful project will include a project presentation to representatives of the non–profit organization, faculty and fellow students.

Total Credits 3

Total Hours 135

Pre/Corequisites

Prerequisite	ROB 134 Robotic Perception and Manipulation
Prerequisite	ROB 145 Applied Robotics Lab II
Prerequisite	ROB 138 Advanced PLC
Prerequisite	ROB 140 IoT Fundamentals: Big Data Analytics

SAF 101 Safety Orientation/OSHA 10

Description This course provides a fundamental understanding of OSHA Safety for the Construction Industry. Students who successfully complete the course will be issued a Department of Labor (DOL) 10-hour card.

Total Credits 1

Total Hours 15

SAF 110 OSHA 510

Description This course covers OSHA standards, policies, and procedures in the construction industry. Topics include scope and application of the OSHA Construction Standards, construction safety and health principles, and special emphasis on those areas in construction which are most hazardous.

Total Credits 2

Total Hours 32

SAF 130 OSHA 503 Update for General Industry Trainers

Description This course is designed for Outreach Training Program trainers who have completed the OSHA 501 Trainer Course in Occupational Safety and Health Standards for General Industry and who are authorized trainers in the OSHA Outreach Training Program. The course provides students with updates on OSHA General Industry Standards and policy and regulations while offering opportunities to develop effective facilitation skills teaching the 10- and 30-hour General Industry Program classes. The OSHA 501 Trainer Course in Standard for the General Industry must be completed before taking this course.

Total Credits 1

Total Hours 21

Science Elective

Description This course is the placeholder for the Science Elective. Students may enroll in the following courses to fulfill the Science Elective: BIO 110 Principles of Biology, BIO 130 Biology I, BIO 135 Biology II, BIO 150 Human Anatomy and Physiology, BIO 160 Microbiology, CHM 110 General Chemistry, CHM 125 Chemistry I, CHM 135 Chemistry II, PHS 110 Physical Science, PHS 115 Introductory Astronomy, PHS 120 General Physics I, PHS 125 General Physics II

Total Credits 5

Total Hours 105

SGT 101 Introduction to Surgical Technology

Description This course introduces the role and functions of proper documentation, post and pre-operative case management, professional and self-management, professionalism, and workplace management, scope of practice, patient care standards, death and dying issues, legal and ethics dilemma, risk management and safety, basic computer skills and electricity concepts.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	BIO 150 Human Anatomy & Physiology
Prerequisite	BIO 160 Microbiology

Prerequisite	CPR 101 CPR for Health Care Providers
Prerequisite	ALH 101 Medical Terminology
Prerequisite	ENG 101 Composition I
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	SOC 101 Principles of Sociology or PSY 101 General Psychology
Prerequisite	SPH 101 Public Speaking or SPH 111 Interpersonal Communications

SGT 107 Pharmacology for Surgical Technology

Description This course will provide general pharmacologic information, including how medications are measured, what kind of medications are used, what laws pertain to them, how they are labeled, how they are administered to the surgical patient, and an understanding of preoperative and intraoperative anesthesia as it relates to routine and emergency situations.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	SGT 101 Introduction to Surgical Technology
Prerequisite	SGT 115 Surgical Procedures I
Prerequisite	SGT 120 Principles and Practices in Surgical Technology
Prerequisite	SGT 140 Principles and Practices in Surgical Technology Lab

SGT 115 Surgical Procedures I

Description Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating room environment.

Total Credits 5

Total Hours 105

Pre/Corequisites

Corequisite	SGT120 Principles & Practices in Surgical Technology

SGT 119 Surgical Technology - Clinical Experience I

Description Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating room environment.

Total Credits 6

Total Hours 270

Pre/Corequisites

Prerequisite	SGT 101 Introduction to Surgical Technology
Prerequisite	SGT 115 Surgical Procedures I
Prerequisite	SGT 120 Principles & Practices in Surgical Technology
Prerequisite	SGT 140 Principles and Practices In Surgical Technology Lab

SGT 120 Principles and Practices in Surgical Technology

Description Presents concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course.

Total Credits 5

Total Hours 75

Pre/Corequisites

Corequisite	SGT 115 Surgical Procedures I

SGT 125 Surgical Procedures II

Description Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating room environment.

Total Credits 5

Total Hours 105

Pre/Corequisites

Prerequisite	SGT 101 Introduction to Surgical Technology
Prerequisite	SGT 115 Surgical Procedures I
Prerequisite	SGT 120 Principles & Practices in Surgical Technology
Prerequisite	SGT 140 Principles & Practices in Surgical Technology Lab

SGT 129 Surgical Technology - Clinical Experience II

Description 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

Total Credits 7

Total Hours 315

Pre/Corequisites

Prerequisite	SGT 119 Surgical Technology - Clinical Experience I
Prerequisite	SGT 107 Pharmacology for Surgical Technology
Prerequisite	SGT 125 Surgical Procedures II

SGT 140 Principles and Practices in Surgical Technology Lab

Description Students will demonstrate concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course.

Total Credits 3

Total Hours 90

Pre/Corequisites

Corequisite	SGT 120 Principles & Practices in Surgical Technology

SGT 145 ST Certification Review

Description This course provides a comprehensive review of surgical technology concepts and practical preparation for the national certification examination

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	SGT 101 Introduction to Surgical Technology
Prerequisite	SGT 107 Pharmacology for Surgical Technology
Prerequisite	SGT 115 Surgical Procedures I
Prerequisite	SGT 119 Surgical Technology - Clinical Experience I
Prerequisite	SGT 120 Principles & Practices in Surgical Technology
Prerequisite	SGT 125 Surgical Procedures II
Prerequisite	SGT 129 Surgical Technology - Clinical Experience II
Prerequisite	SGT 140 Principles & Practices in Surgical Technology Lab

SOC 101 Principles of Sociology

Description An introductory study of human society to acquaint students with the influence and patterns of individual and group interaction by exploring the development, characteristics, and functioning of human groups; the relationships between groups, and group influences on individual behavior.

Total Credits 3

Total Hours 45

SOC 115 Social Problems

Description This course will examine the major problems of contemporary society, the social causes, potential solutions, and impact on public policy utilizing sociological theories and perspectives. Students will acquire an understanding of unique issues such as inequality, crime, deviance, violence, substance abuse, and problems within socialization institutions.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite	SOC 101 Introduction to Sociology

Social Science Elective

Description This course is the placeholder for the Social Science elective. Students may enroll in the following courses to fulfill the social Science elective: CRJ 101 Introduction to Criminal Justice, CRJ 155 Policing Diverse Cultures, ECO 105 Principles of Macroeconomics, ECO 110 Principles of Microeconomics, POL 101 American Government, PSY 101 General Psychology, PSY110 Child Psychology, PSY 120 Developmental Psychology, SOC 101 Principles of Sociology, GEO 101 Principles of Geography, SOC 115 Social Problems

Total Credits 3

Total Hours 45

SPH 101 Public Speaking

Description Covers fundamental basics to all good private and public speaking experiences and elements in voice production and improvement, bodily movement, confidence, poise and understanding of all types of public speeches. Required of all transfer curricula.

Total Credits 3

Total Hours 45

SPH 111 Interpersonal Communication

Description Improves individual communication skills. By understanding the elements of effective communication, students are able to create environments that bring out the best in themselves and others. In addition, students learn how to better turn ideas and feelings into words, how to listen more effectively, respond more appropriately to what others have said and, most important of all, how to maintain and develop good interpersonal relationships with their families, their peers and fellow workers. Emphasis is placed on small-group activities, interviewing skills and verbal and non-verbal communication.

Total Credits 3

Total Hours 45

THR 100 Theatre Appreciation

Description Upon completion of this class, the student will know the origin of theater, as well as the major historical periods of theatrical development including Greek, Medieval

and Shakespearian. Students will acquire a basic understanding of different aspects of theater and play production, including an awareness of technical theater, designing for the stage, dramatic literature and structure. The student will become familiar with what constitutes quality acting and playwriting.

Total Credits 3

Total Hours 45

TAS 105 Orientation to the Transportation Industry

Description This foundational course provides students with a comprehensive introduction to the dynamic and diverse world of the transportation industry.

Total Credits 1

Total Hours 15

TAS 121 Engine Repair

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the theory and operation of internal combustion engine; demonstrate the ability to remove an automotive engine; demonstrate the ability to install an automotive engine; demonstrate the basic ability to inspect and repair cylinder head, valve trains and timing defects; demonstrate the ability to disassemble short block; demonstrate the ability to inspect short block; demonstrate the ability to repair short block; demonstrate the ability to reassemble short block; demonstrate the basic ability to inspect and repair engine lubrication; demonstrate the basic ability to inspect and repair engine cooling systems; inspect a cylinder head and valve train; repair a cylinder head and valve train; perform advanced level engine diagnosis.

Total Credits 4

Total Hours 60

TAS 124 Electrical I

Description In this course students will: Complete service work orders; describe the relationship between voltage, ohms and amperage; perform basic electrical circuit repairs; identify electrical system faults; identify basic wiring diagram symbols, components, and legend information; perform basic electrical circuit measurements

using a DVOM; describe basic circuit characteristics of series, parallel and series parallel circuits through a variety of classroom and shop learning and assessment activities.

Total Credits 3

Total Hours 60

TAS 125 Electrical II

Description In this course students will: Perform battery diagnosis; perform battery service; perform starting system diagnosis; perform starting system repair.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite TAS 124 Electrical I

TAS 127 Automatic Transmission Repair

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: explore the concept of theory and operation of automatic transmissions/transaxles; perform maintenance on an automatic transmission/transaxle; perform service on an automatic transmission/transaxle; diagnose automatic transmission/transaxles; inspect automatic transmission/transaxles; remove and reinstall automatic transmission; remove and reinstall automatic transaxles; disassemble automatic transmission and components; disassemble automatic transaxles and components; inspect automatic transmission components; inspect automatic transaxles and components; repair automatic transmission and components; repair automatic transaxles and components; reassemble automatic transmission and components; reassemble automatic transaxles and components.

Total Credits 4

Total Hours 60

TAS 128 Heating & Air Conditioning

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional

Flexible Credit. Through a variety of learning and assessment activities students can: explore the fundamentals of automotive HVAC operations and environmental concerns, identify the appropriate refrigerant recovery and recycling guidelines; service refrigerant, recycling and handling systems; document fundamental heating and air conditioning system concerns; perform fundamental diagnostics of A/C systems; perform fundamental diagnostics of refrigeration systems components; perform fundamental repairs of refrigeration systems components; perform fundamental diagnostics of heating, ventilation, and engine cooling systems; perform fundamental repairs of heating, ventilation, and engine cooling systems; perform fundamental diagnostics of operating systems and related controls; perform fundamental repairs of operating systems and related controls; perform complex diagnostics of A/C Systems; document complex heating and air conditioning system concerns; perform complex diagnostics of refrigeration system components; perform complex repairs of refrigeration system components; perform complex diagnostics of heating, ventilation, and engine cooling systems.

Total Credits 4

Total Hours 60

TAS 131 Engine Performance I

Description In this learning plan students will: complete work order and check history; identify engine mechanical integrity; explore the fundamentals of fuel system theory; identify fuel system concerns; explore the fundamentals of ignition theory; identify ignition system concerns; identify induction system concerns; identify exhaust system concerns; identify engine mechanical integrity through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

TAS 132 Engine Performance II

Description This course contains competencies that can be used in their entirety within a single course or as needed for courses designed by a Kansas institution as Institutional Flexible Credit. Through a variety of learning and assessment activities students can: analyze engine mechanical integrity; analyze fuel system concerns; analyze ignition system concerns; analyze induction system concerns; analyze exhaust system concerns; service fuel system concerns; repair fuel system concerns; service ignition system concerns; repair ignition system concerns; service induction system concerns; service exhaust system concerns; repair induction system concerns; repair exhaust system concerns.

Total Credits 3

Total Hours 60

Pre/Corequisites

Corequisite TAS 131 Engine Performance I

TAS 133 Brakes I

Description This course is a thorough and detailed study of brake system theory and functional operation and principles of hydraulic systems as it applies to braking system operation. Practical applications of all phases of brake work including complete system service of disc and drum brake systems, parking brake systems, power assist devices and machining of brake disc and drum.

Total Credits 3

Total Hours 60

TAS 134 Brakes II for Automotive

Description In this course students will: Determine necessary brake system correction; Conduct system pressure tests utilizing service specifications; Perform diagnosis and correction for poor stopping, pulling or dragging concerns caused by malfunctions in the hydraulic system; Conduct inspection, fabrication and/or replacement of brake lines and hoses; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns; Perform service specifications pertaining to the removal, cleaning and refinishing procedures on brake drums; Perform drum brake repair and replacement procedures; Diagnose poor stopping noise vibration, pulling, grabbing, dragging or pedal pulsation concerns; Perform disc brake repair and replacement procedures; Machine rotor according to service specifications; Perform caliper piston retraction where applicable; Inspect and test power assist systems; Determine necessary action on wheel bearing noise, wheel shimmy and vibration concern diagnoses; Perform the removal, inspection and replacement of bearing and hub assemblies through a variety of classroom and lab/shop learning and assessment activities.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite TAS 133 Brakes I

TAS 135 Computer Systems for Automotive

Description In this course students will: Perform automotive computer system diagnosis; perform vehicle communication diagnosis; perform engine computer system diagnosis; transmission computer diagnosis; perform air bag system diagnosis; perform heating and air conditioning electronic diagnosing; perform electronic anti-lock brake/traction/stability diagnosis; perform driver assistance system diagnosis; identify computer systems through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

TAS 136 Suspension and Steering I

Description In this course students will: document fundamental suspension system concerns; perform fundamental diagnostics of steering systems; perform fundamental repairs of steering systems; perform fundamental diagnostics of suspension systems; perform fundamental repairs of suspension systems; determine the need for wheel alignment and adjustment; perform fundamental diagnostics of wheel and tire systems; perform fundamental repairs of wheel and tire systems through a variety of learning and assessment activities.

Total Credits 3

Total Hours 60

TAS 137 Suspension and Steering II

Description In this course students will: gain knowledge in the use of alignment geometry and computerized alignment equipment to diagnose and repair steering suspension problems and to verify that a vehicle's suspension and steering components are within manufacturer's specifications. In addition, removing and replacing steering and suspension components according to manufacturer's specifications, inspecting, servicing, and repairing wheel and tire assemblies for optimum performance.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite TAS 136 Suspension & Steering I

TAS 150 Specialized Training

Description This course is an online, self-paced course to allow students to acquire specialized training. In this course, students will choose one of the training options provided and utilize their chosen system to complete the modules required.

Total Credits 2

Total Hours 30

TAS 160 Transportation Industry Safety

Description In today's dynamic transportation landscape, safety remains a paramount concern. This course is tailored to provide a comprehensive understanding of safety measures and protocols to meet all ASE and governmental standards.

Total Credits 1

Total Hours 15

TAS 206 PowerTrain Systems

Description 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 power flow of the manual transmission and transaxle; perform fundamental manual transmission and transaxle inspection and repair according to service specifications; perform fundamental differential inspection and repair according to service specifications; perform fundamental diagnosis, inspection and replacement of drive axle shafts and supporting components; perform fundamental diagnosis, inspection, adjustment and repair of four- and all-wheel drive components; diagnose drive train issues; diagnose clutch concerns; perform the removal, inspection and/or repair of the clutch and its components; conduct a transmission and transaxle inspection and repair according to service specifications; conduct a differential inspection and repair according to service specifications; conduct the diagnosis, inspection and replacement of drive axle shafts and supporting components; conduct the diagnosis, inspection, adjustment and repair of four- and all-wheel drive components.

Total Credits 4

Total Hours 60

TAS 225 Electrical III

Description In this course students will: perform charging system diagnosis; perform charging system repair; identify current flow on starting and charging system diagrams through a variety of learning and assessment activities.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite TAS 125 Electrical II

TFF 108 Welding Safety & Orientation

Description The primary purpose of this course is to introduce and familiarize new students with the use and safety precautions to consider when using welding related equipment. The equipment in WSU Tech's welding lab compares to what is currently used by Industry. This course will enable a person who has never before used the equipment to set up and use it in an appropriate manner at an entry level and, doing so, meet safety standards. A separate safety exam will be given at the end of demonstrating the use and hazards it presents. Before students can use any piece of equipment on their own, they have to attain a score of 100% on the safety exam. Equipment in the lab that is excluded from the safety training may only be used under direct supervision of an instructor who is within an arm's length away.

Total Credits 1

Total Hours 15

TFF 110 Tap and Die

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

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite AER 106 Aerospace Manufacturing Tooling Orientation

TFF 112 Print Reading

Description Students will learn to identify basic lines, views, and abbreviations used in blueprints, interpret basic 2 D sketches using orthographic projections and blueprints, determine dimensions of features of simple parts, sketch simple parts

with dimensional measurements, determine dimensions of a multi-feature part, interpret GDT symbols, frames and datums.

Total Credits 3

Total Hours 45

TFF 114 Introduction to CAD I

Description This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. Students will use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD. This course also examines dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple use, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing drawings with AutoCAD.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite Blueprint Reading (MMG 113 Print Reading or AVC 112 Blueprint Reading, TFF 112 Print Reading or MCD 104 Blueprint Reading for Drafting)

TFF 115 Hand and Power Tools for Aerospace Tooling

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

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite TFF 110 Tap & Die

TFF 117 Precision Measuring

Description This course is designed to assist multiple technical training disciplines with the proper operation, calibration, and measuring techniques required for utilizing precision measurement equipment effectively. Both SAE and metric measuring instruments will be covered, including steel rules, feeler gauges, precision straight edge, calipers, inside and outside micrometers, angle measurement, small hole gauges, telescoping gauges and dial indicators.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite MCD 104 Blueprint Reading for Drafting Or AVC 112 Blueprint Reading or MMG 113 Print Reading or MNF 113 Blueprint Basics For Manufacturing or TFF 112 Print Reading

TFF 118 Welding Applications

Description In this course students will learn the basic elements of SMAW, GMAW and GTAW. Additionally, students learn the equipment, processes and skills associated with welding cutting equipment.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite CWG 105 Welding Safety & Orientation or TFF 108 Welding Safety & Orientation

TFF 120 Metrology

Description Students will learn the proper operation, field verification, and measuring techniques utilized in precision machining, manufacturing, and tooling in this course. The course will also expose the student to software applications used in the industry. Measuring instruments will be covered in Primary standards, Flexible Measuring Instruments, Support and Layout, Height Measuring Tools, and Laser Tracking and Romer Arm usage and software.

Total Credits 4

Total Hours 60

Pre/Corequisites

Prerequisite	MCD 106 Precision Measuring or TFF 117 Precision Measuring

TFF 125 Tooling Capstone

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

Total Credits 4

Total Hours 120

Pre/Corequisites

Prerequisite	TFF 115 Hand and Power Tools for Aerospace Tooling
Prerequisite	AER 150 Assembly Overview I

TFF 130 Machining I

Description Students will learn to conduct job hazard analysis for conventional mills and lathes, develop math skills for machine tool operations, perform preventive maintenance and housekeeping on conventional mills and lathes, select work holding devices for mills, lathes and other machine tools, calculate feeds and speeds, remove material using milling and turning processes, align milling head, use a vertical mill to center drill, drill and ream holes, change tools and tool holders on milling machines, and maintain saws and grinders.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	AVC 110 Safety/OSHA 10

TFF 135 Direct & Alternating Current

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

Total Credits 4

Total Hours 90

Pre/Corequisites

Prerequisite AVC 110 Safety/OSHA

TFF 140 Machining II

Description Students learn to perform basic trigonometric functions, and perform other procedures such as I.D. boring and facing operations, planning a sequence for machining operations, aligning work pieces, use work holding devices, jigs and fixtures, performing threading operations on lathes, machining keyways on a vertical mill, inspecting and dressing grinding wheels, performing O.D. & I.D. threading operations, performing O.D. & I.D. tapering operations, machining parts using milling cutters and milling machines, and tapping holes on a vertical mill.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite TFF 130 Machining I

TFF 150 Fixture Construction

Description In this course, students will have the opportunity to link classroom/lab theory with an experimental learning opportunity. Through direct observation, reflection and evaluation, students gain an insight into the internship site's work, mission, and audience, how these relate to their academic study, as well as the organization's position in the broader industry or field. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning goals.

Total Credits 5

Total Hours 225

TFF 155 Tooling and Fixture Fabrication Capstone

Description In this project-based course, students will apply the skills and knowledge acquired throughout the Tooling Fixture Fabrication program to a real-world project. In partnership with industry, students will fabricate a tooling fixture designed to meet the customer's needs. Students will produce a critical reflection on their capstone

experience demonstrating how they have addressed specific learning goals. A successful project will include a project presentation to faculty and fellow students.

Total Credits 5

Total Hours 225

UAS 180 Ground School

Description Ground school is a structured course designed to help students prepare for the Part 107 test (UAG). The primary focus is on providing the necessary knowledge required to pass the exam. Topics covered include airspace, weather, regulations, airport operations, and various other aspects. Through this course, students will gain the information needed to approach the Part 107 test with confidence and competence.

Total Credits 4

Total Hours 60

UAS 185 Multi-Rotor Flight

Description The Multi-Rotor Flight course is designed to familiarize students with the manual operation of quadcopter-style aircraft. Mastering basic flight maneuvers is fundamental to developing proficiency as a pilot and establishing a secure flying environment. Through hands-on training and practical exercises, students will gain the skills necessary to confidently control multi-rotor systems and ensure safe flight operations.

Total Credits 4

Total Hours 75

Pre/Corequisites

Prerequisite	UAS180 Ground School

UAS 190 Videography

Description UAS Videography is designed to enhance our students' proficiency in pre-visualizing aerial shots, capturing high-quality video footage, and crafting refined final projects. Through the utilization of cutting-edge drone technology, this course offers students the ability to create unique projects to add to their portfolio. Furthermore, it provides a strong foundation in video editing skills that can be seamlessly applied across a diverse range of industries. UAS Videography

represents a thriving and evolving market, offering abundant prospects for exploration and career advancement.

Total Credits 4

Total Hours 75

UAS 220 UAS Multi-Rotor Maintenance

Description The Multi-Rotor Maintenance course provides a foundational understanding of DC electronics, soldering techniques, multi-rotor components, and the assembly of quadcopters. Geared towards beginners and enthusiasts, this course offers a practical exploration of the essential skills required for maintaining and constructing multi-rotor aerial vehicles.

Total Credits 6

Total Hours 105

Pre/Corequisites

Prerequisite UAS 180 Ground School

UAS 225 Post-Processing

Description The post-processing phase is a pivotal aspect of drone operation, capable of defining the success or failure of a project. Acquire fundamental skills in converting photos into actionable data, primed and ready for delivery to your clients.

Total Credits 3

Total Hours 45

Pre/Corequisites

Prerequisite UAS 180 Ground School

UAS 235 UAS Small Business Fundamentals

Description Covering quoting, planning, execution, post-processing, and final product delivery, this class provides a pragmatic experience simulating the role of a small business owner. Explore the practical aspects of delivering a service to clients with a focus on quality.

Total Credits 3

Total Hours 60

Pre/Corequisites

Corequisite	UAS 225 Post-Processing
Corequisite	UAS 185 Multi-Rotor Flight

UAS 240 Multi-Rotor Instructor

Description Transitioning from student to instructor, it's now your turn to impart the proper techniques and practices for safely operating a multi-rotor. This class delves into the concepts behind the Fundamentals of Instructing (FOI) and provides hands-on practice in the real world, guiding your own students through the learning process. Remember, as the saying goes, 'the best way to become an expert on a topic is to teach it!

Total Credits 6

Total Hours 105

Pre/Corequisites

Prerequisite	UAS 185 Multi-Rotor Flight

UAS 250 Advanced Post-Processing

Description In the domain of advanced drone operations, mastery of the intricate post-processing phase emerges as a critical factor, wielding the nuanced capability to decisively shape the trajectory of a project. Cultivate a refined expertise in the sophisticated craft of transmuting captured imagery into meticulously processed, actionable data, meticulously primed for seamless delivery to discerning clients. This advanced-level course delves into the intricacies and cutting-edge methodologies of post-processing, ensuring the acquisition of highly specialized skills requisite for navigating the dynamic terrain of advanced drone technology.

Total Credits 6

Total Hours 105

Pre/Corequisites

Prerequisite	UAS 225 Post-Processing

UAS 255 Advanced Payloads

Description Delve into the complexities of LiDAR, Thermal, and Multispectral payloads, examining how these advanced technologies might shape the future landscape of drone technology.

Total Credits 3

Total Hours 60

UAS 260 Fixed-Wing Construction

Description Assembling a fixed-wing UAS proves to be a satisfying experience, with each step—from cutting and gluing to soldering parts—demanding meticulous attention to detail. The focus on precision throughout the process ensures the creation of a well-crafted, finished product, ready to take flight.

Total Credits 3

Total Hours 60

UAS 265 Fixed-Wing UAS Flight

Description Embark on the world of flying fixed-wing drones in this class. Operating a constantly moving aircraft doesn't have to be an overwhelming experience. Develop proficiency in basic maneuvers and emergency procedures, setting the stage to become a competent fixed-wing pilot.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	UAS 240 Multi-Rotor Instructor

UAS 273 Capstone

Description Utilize the culmination of your UAS knowledge in this capstone class, crafting a project that effectively encapsulates all you've learned. Develop a compelling project to showcase to friends, family, and, notably, future employers. This course provides the opportunity to apply and demonstrate the depth of your UAS expertise, leaving a lasting impression through a finely executed and comprehensive project.

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite	UAS 240 Multi-rotor Instructor
Prerequisite	UAS 250 Advanced Post-Processing

UAS 275 Internship

Description Translate your UAS skills into real-world workplace experience. In this course, seamlessly integrate an internship with your college program, earning both valuable credit and practical knowledge. Maximize the opportunity to gain hands-on experience and financial compensation, establishing a bridge between academic learning and professional application.

Total Credits 4

Total Hours 180

Pre/Corequisites

Prerequisite	UAS 240 Multi-Rotor Instructor
Prerequisite	UAS 250 Advanced Post-Processing

VET 101 Introduction to Veterinary Nursing

Description This course will introduce learners to the field of veterinary medicine, focusing on the specific roles and responsibilities of the veterinary nurse. Learners will be introduced to the historical aspects of veterinary medicine and the duties of the nurse including ethics, common animal breeds, safety, and first aid. This course also introduces the basic principles of nursing care, including clear and compassionate communication with owners. This course also gives a basic overview of medical terminology, anatomy/physiology and pathology. It will also introduce the basic principles of animal science, specifically as they relate to the role of a veterinary nurse.

Total Credits 3

Total Hours 60

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	CHM 110 General Chemistry
Prerequisite	ENG 101 Composition I
Corequisite	VET 110 Veterinary Anatomy and Physiology

Corequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2
Corequisite	VET 140 Veterinary Pharmacology or VET 141 Veterinary Assisting III and VET 142 Veterinary Pharmacology Part 2

VET 102 Introduction to Veterinary Assisting/Animal Science

Description This course will introduce learners to the field of veterinary medicine and animal science, focusing on the specific roles and responsibilities of the veterinary assistant. Learners will be introduced to the basic principles of animal handling and care, common animal breeds, safety in the veterinary setting and first aid. This course also gives an overview of veterinary medical terminology.

Total Credits 1

Total Hours 30

VET 103 Introduction to Veterinary Nursing Part 2

Description Intro to Veterinary Nursing: This course is designed for students who have completed VET 102 Introduction to Veterinary Assisting/Animal Science and have been accepted into the Veterinary Nursing program. This course will introduce learners to the field of veterinary medicine, focusing on specific roles and responsibilities of the veterinary technician. Students will be introduced to the historical aspects of veterinary medicine and the duties of the technician, including ethics. This course introduces the basic principles of nursing care, including clear and compassionate communication with owners. This course also gives a basic overview of medical terminology, anatomy/physiology, and pathology. It will introduce the basic principles of animal science, specifically as they relate to the role of the veterinary technician.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite	VET 102 Introduction to Veterinary Assisting/Animal Science
Prerequisite	BIO 110 Principles of Biology
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	CHM 110 General Chemistry
Prerequisite	ENG 101 Composition I
Corequisite	VET 110 Veterinary Anatomy and Physiology

Corequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2
Corequisite	VET 140 Veterinary Pharmacology or VET 141 Veterinary Assisting III and VET 142 Veterinary Pharmacology Part 2

VET 105 Veterinary Business Procedures/Office Management

Description This course will introduce learners to the expectations of veterinary nurses including veterinary medical records, admitting procedures, and record maintenance via hands on experiences. It will cover basic bookkeeping skills, inventory control measures, marketing, scheduling, interpersonal communication, phone etiquette, professionalism, working with difficult owners/animals, and the use of computer software specifically designed for use in veterinary clinics and hospitals.

Total Credits 2

Total Hours 30

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	CHM 110 General Chemistry

VET 107 Veterinary Business Procedures/Office Management Part 2

Description This course is designed for students who have completed VET 106 Veterinary Practice Management and have been accepted into the Veterinary Nursing program. This course will introduce learners to the expectations of veterinary technicians including veterinary medical records, admitting procedures, and record maintenance via hands-on experience. It will cover basic bookkeeping skills, inventory control measures, marketing, scheduling interpersonal communication, phone etiquette, professionalism, working with difficult owners and animals, and the use of computer software specifically designed for use in veterinary clinics and hospitals.

Total Credits 1

Total Hours 15

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	CHM 110 General Chemistry
Prerequisite	VET 121 Vet Assisting I
Prerequisite	VET 116 Laboratory and Diagnostic Skills

VET 110 Veterinary Anatomy and Physiology

Description This course will introduce veterinary medical terminology, including prefix, suffix, root words, common medical terms, and a basic knowledge of word construction. This course will relate the relevant medical terminology to the structure and function of animal bodies and the anatomical/physiological differences between selected species. Learners will examine body organization, cellular biology, histology, and gross anatomy/physiology of the integumentary, skeletal, muscular, endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, urinary, and nervous systems. Lab will include the use of skeletons, models, virtual anatomy tools, and dissection of cadavers.

Total Credits 4

Total Hours 105

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	CHM 110 General Chemistry
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	ENG 101 Composition I
Corequisite	VET 101 Introduction to Veterinary Technology/Principles of Animal Sciences OR VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Corequisite	VET 115 Veterinary Clinical Pathology I OR VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2
Corequisite	VET 140 Veterinary Pharmacology ORVET 141 Veterinary Assisting III and VET 142 Veterinary Pharmacology Part 2

VET 115 Veterinary Clinical Pathology I

Description This course is the first of a three-course series and will introduce basic pathological processes and prepare the learner for the next course in the sequence. This course builds upon veterinary pharmacology and introduces clinical microbiology

and cytology as it relates to veterinary nursing and animal pathology. It covers the basic principles of microbial classification, growth, and pathogenicity as well as various laboratory methods used in identification of microorganisms as they relate to pathology and parasitology in animals.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	CHM 110 General Chemistry
Prerequisite	ENG 101 Composition I
Corequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Corequisite	VET 110 Veterinary Anatomy and Physiology
Corequisite	VET 140 Veterinary Pharmacology or VET 141 Veterinary Assisting III and VET 142 Veterinary Pharmacology Part 2

VET 116 Laboratory and Diagnostic Skills

Description This course will expose the learner to basic veterinary laboratory techniques including sample collection and testing. The student will also be exposed to the safety measures employed in radiology. The student will gain hands-on experience with animal handling in the lab and radiology setting.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	VET 141 Veterinary Assisting II

VET 117 Veterinary Clinical Pathology I Part 2

Description This course is designed for students who have completed VET 116 Laboratory and Diagnostic Skills and have been accepted into the Veterinary Nursing program. This course is the first of a three-course series and will introduce basic pathological processes and prepare the learner for the next course in the sequence. This course builds upon veterinary pharmacology and introduces clinical microbiology and cytology as it relates to veterinary technology and animal pathology. It covers the basic principles of microbial classification, growth, and pathogenicity as well as

various laboratory methods used in identification of microorganisms as they relate to pathology and parasitology in animals.

Total Credits	2
Total Hours	60

Pre/Corequisites

Prerequisite	BIO 110 Principles of Biology
Prerequisite	MTH 101 Intermediate Algebra
Prerequisite	SPH 101 Public Speaking OR SPH 111 Interpersonal Communication
Prerequisite	CHM 110 General Chemistry
Prerequisite	ENG 101 Composition I
Corequisite	VET 140 Veterinary Pharmacology or VET 141 Veterinary Assisting II and VET 142 Veterinary Pharmacology Part 2
Corequisite	VET 110 Veterinary Anatomy and Physiology
Corequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2

VET 120 Veterinary Nursing Procedures I

Description	This course is the first of a two-course series and will explore animal nutrition, patient assessment, animal therapeutics, animal husbandry, animal restraint, animal behavior and common dental problems and dental prophylaxis. Learners will get hands on experience in the collection of various diagnostic samples and preparation for collection.
Total Credits	3
Total Hours	75

Pre/Corequisites

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 121 Veterinary Assisting I

Description	This course is the first of a two-course series and will explore veterinary anatomy, common diseases of small animals, zoonoses, and nutrition. The learner will get

hands on experience in animal handling and restraint and basic grooming techniques for small animals.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite	VET102 Introduction to Veterinary Assisting/Animal Science

VET 122 Veterinary Nursing Procedures I Part 2

Description This course is designed for students who have completed VET 121Veterinary Assisting I and have been accepted into the Veterinary Nursing program. This course is the first of a two-course series and will explore animal nutrition, patient assessment, animal therapeutics, animal husbandry, animal restraint, animal behavior and common dental problems and the prophylactic procedure for teeth cleaning. Learners will get hands-on experience in the collection of various diagnostic samples and preparation for collection.

Total Credits 2

Total Hours 60

Pre/Corequisites

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2
Prerequisite	VET 121 Veterinary Assisting I

VET 130 Veterinary Emergency, Critical Medicine and Hospital Procedures

Description This course will cover emergency and critical care nursing skills and hospital procedures in Veterinary Medicine. Topics will focus on companion animal care, but will include large animal, laboratory animal, and exotic animal care as it relates to the veterinary nurse.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 140 Veterinary Pharmacology

Description This course will explore pharmacological principles, including pharmacokinetics drug classes, indications, dosage, preparation, mechanisms of action, and side effects of drugs used in veterinary medicine.

Total Credits 2

Total Hours 45

Pre/Corequisites

Corequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Corequisite	VET 110 Veterinary Anatomy and Physiology
Corequisite	VET 115 Veterinary Clinical Pathology or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2
Prerequisite	ENG 101 Composition I
Prerequisite	CHM 110 General Chemistry
Prerequisite	MTH 101 Intermediate Algebra

VET 141 Veterinary Assisting II

Description This course is the second in a two-course series and will continue to explore and cover exam room procedures, pharmacology, euthanasia and surgical assisting. The learner will gain hands-on experience in animal handling and restraint as well as basic medication administration.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	VET 121 Veterinary Assisting I

VET 142 Veterinary Pharmacology Part 2

Description This course is designed for students who have completed VET 141 Veterinary Assisting II and have been accepted into the Veterinary Nursing program. This course will explore pharmacological principles, including pharmacokinetics, drug classes, indications, dosages, preparation, mechanisms of action, and side effect of drugs used in veterinary medicine.

Total Credits 1

Total Hours 30

Pre/Corequisites

Prerequisite	ENG 101 Composition I
Prerequisite	CHM 110 General Chemistry
Prerequisite	MTH 101 Intermediate Algebra
Corequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Corequisite	VET 110 Veterinary Anatomy and Physiology
Corequisite	VET 115 Veterinary Clinical Pathology or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology Part 2

VET 200 Veterinary Professional Wellness

Description This course will explore well-being strategies including physical, emotional, financial and mental health. This course will discuss topics of advocating for technicians, nutrition, exercising, financial wellness, Not One More Vet and self-harm/ suicide.

Total Credits 2

Total Hours 30

VET 215 Veterinary Clinical Pathology II

Description This course is the second of a three-course series and will continue to build upon pathological processes and prepare the learner for the next course in the sequence. This course will explore the life cycles, modes of transmissions, and pathological consequences associated with common parasites of animals. Laboratory techniques of hematology, serum chemistry, urinalysis and fecal sample collection will be covered. This course also explores special commercial laboratory test procedures and pathological processes. Lab will introduce diagnostic procedures and cover identification of parasites and various pathologies using prepared slides and collected specimens. Additionally, postmortem examination procedures and proper submission of tissue samples for pathologic diagnosis are introduced.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 220 Veterinary Nursing Procedures II

Description This course is the second of a two-course series and will continue to explore and cover advanced techniques in animal nutrition, patient assessment, animal therapeutics, animal husbandry, animal restraint, animal behavior and common dental problems and dental prophylaxis focused on companion animals. Learners will get hands on experience in the collection of various diagnostic samples and preparation for collection with a focus on companion animals.

Total Credits 2

Total Hours 45

Pre/Corequisites

Prerequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Prerequisite	VET 215 Veterinary Clinical Pathology II

VET 230 Veterinary Diagnostic Imaging with Lab

Description Covers the physics of x-ray photon production, radiation safety, quality control measures, federal and state radiation regulations, film processing, radiographic technique evaluation, positioning of animals, and proper identification and storage of radiographic images. Covers the operation and use of fixed, portable, and dental x-ray machines; the care and development of films; radiographic positioning of animals; and evaluation of radiographic techniques. Explores additional diagnostic imaging modalities, such as ultrasound, MRI, CT, and endoscopy.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 240 Veterinary Anesthesia and Surgical Assisting

Description This course will explore the principles and practices of veterinary anesthesia and surgical assistance including pre-operative, operative, and post-operative protocols for routine surgical procedures. Learners will be provided with hands-on experience in anesthesiology, surgical patient preparation and surgical assistance.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	VET 250 Veterinary Nursing: Large Animal Disease and Medical Care
Prerequisite	VET 265 Veterinary Nursing Procedures: Avian, Exotic and Lab Animals Disease and Medical Care

VET 250 Veterinary Nursing: Large Animal Disease and Medical Care

Description This course will explore common large animal breeds (ruminant, equine, swine, and chickens). It will introduce techniques necessary for the provision of nursing care to large animals, including restraint, husbandry, behavior, physical examination, medication administration, diagnostic sample collection, grooming, bandaging, nutrition, and vaccination. It will also cover preventive medicine and diseases of large animals including the public health significance of relevant large animal diseases and examine the role of the veterinary nurse in performing diagnostics, nursing care, and client education.

Total Credits 2

Total Hours 45

Pre/Corequisites

Corequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Corequisite	VET 215 Veterinary Clinical Pathology II

Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 260 Veterinary Clinical Pathology III

Description This course is the third of a three-series and will bring together knowledge of pathological processes gained from the first two courses in the sequence and relate them to everyday practice in veterinary medicine with an emphasis on companion animal practice. This course will continue to explore the life cycles, modes of transmissions, and pathological consequences associated with common parasites of animals. It will also continue discussion of microbiology and cytology as they relate to the veterinary technician. It will explore physical injuries, resulting pathologies and treatments. Additionally, this course will explore environmental and nutritional concepts as they relate to various pathologies with an emphasis in this relation to small/companion animals. Lastly, this course will reinforce the issue of zoonosis and safety on the job with The Occupational Safety and Health Administration (OSHA) protocols.

Total Credits 3

Total Hours 75

Pre/Corequisites

Prerequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Prerequisite	VET 215 Veterinary Clinical Pathology II

VET 265 Veterinary Nursing Procedures: Avian, Exotic and Lab Animals Disease and Medical Care

Description Introduces basic techniques necessary for the provision of nursing care to small animals, including small animal restraint, husbandry, behavior, physical examination, medication administration, vaccination, and grooming. Includes kennel duty experience in the care of a variety of companion animals. Provides an overview of the anatomy and physiology, the care and handling, and diseases of common laboratories and exotic small animals. Covers the principles of lab animal use in research with an emphasis on animal welfare. This course also covers preventive medicine and diseases of small animals including the public health significance of relevant small animal diseases. Examine the role of the veterinary nurse in performing diagnostics, nursing care, and client education. Reinforce staff/owner relationships with role playing scenarios.

Total Credits	2
Total Hours	45

Pre/Corequisites

Corequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Corequisite	VET 215 Veterinary Clinical Pathology II
Prerequisite	VET 101 Introduction to Veterinary Nursing or VET 102 Introduction to Veterinary Assisting/Animal Science and VET 103 Introduction to Veterinary Nursing Part 2
Prerequisite	VET 110 Veterinary Anatomy and Physiology
Prerequisite	VET 115 Veterinary Clinical Pathology I or VET 116 Laboratory and Diagnostic Skills and VET 117 Veterinary Clinical Pathology I Part 2

VET 270 Veterinary Nursing Seminar

Description	This course will serve to reinforce knowledge and concepts covered in the other courses in the program. This course will prepare students for the Veterinary Technician National Exam (VTNE) and help them to become ready to work in the field of Veterinary Nursing.
Total Credits	1
Total Hours	15

Pre/Corequisites

Prerequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Prerequisite	VET 215 Veterinary Clinical Pathology II

VET 275 Veterinary Clinical Practicum

Description	This course provides hands-on experience working with actual animal cases in a clinical veterinary setting. This course will expand student knowledge and build proficiency of acquired skills through task-specific exercises learned prior in the curriculum. It also links prior on-campus coursework with off-campus learning experiences providing development of increased proficiency and honing of essential skills learned in the formal instructional setting which are necessary for a career as a veterinary technician. Students will be matched to practicum sites at the discretion of the instructor. Each student is expected to attend a minimum of 240 hours at external sites. These hours can be completed at two locations (120 hours at each site). The practicum will be monitored and reviewed by the program director or the director's appointee.

Total Credits	6
Total Hours	270

Pre/Corequisites

Prerequisite	VET 120 Veterinary Nursing Procedures I or VET 121 Veterinary Assisting I and VET 122 Veterinary Nursing Procedures Part 2
Prerequisite	VET 215 Veterinary Clinical Pathology II