



Mobile Equipment Technology

Student Learning Outcomes

- 1 Communication- The student will demonstrate the ability to communicate effectively using written and/or oral communication.
- 2 Information Literacy- The student will recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.
- 3 Problem Solving- The student will demonstrate the ability to analyze information and solve problems.
- 4 Workplace Skills - Demonstrates a mastery of workplace skills/soft skills, exhibits initiative, adapts to varied situations

Program Outcomes

- 1 Prioritize safety and regulatory compliance in all aspects of mobile equipment repair and maintenance, ensuring adherence to industry standards and regulations.
- 2 Value strong communication skills, enabling them to effectively interact with colleagues, clients, and supervisors in a professional manner.
- 3 Demonstrate proficiency in repairing and maintaining diesel engines, fuel and exhaust systems, and machine-specific systems commonly found in mobile equipment.
- 4 Obtain advanced diagnostic skills, utilizing diagnostic tests to identify issues in mobile equipment systems effectively.
- 5 Exhibit competence in diagnosing and repairing powertrain systems, including engines, transmissions, and drivetrains, to ensure optimal performance and efficiency.
- 6 Demonstrate mastery in fluid power principles and applications, enabling them to troubleshoot, repair, and maintain hydraulic systems in mobile equipment effectively.
- 7 Show awareness in diagnosing and repairing electrical systems in mobile equipment, including wiring, circuits, and components, to ensure safe and reliable operation
- 8 Diagnose and repair heating and air conditioning systems in mobile equipment, ensuring operator comfort and efficiency in various environmental conditions.
- 9 Optimize engine performance in mobile equipment, improving fuel efficiency, power output, and overall reliability.
- 10 Diagnose and repair braking, suspension, and steering systems in mobile equipment, ensuring safe operation and stability
- 11 Acquaint self in fundamentals of dealership operations within the mobile equipment industry, including customer service, sales, and employer core values.

- 12 Diagnose and repair equipment specific systems, such as heating and air conditioning, suspension systems, steering, air brakes, data links, voltage regulation, or transfer switches, based on specialized area of interest.

Associate of Applied Sciences, Mobile Equipment Technology – ThinkBIG Total Credits 61

Fall

Course #	Course Title	Credits	Function
EQP 121	Diesel Engine Repair	4	Technical Studies
EQP 210	Dealership Fundamentals	2	Technical Studies
TAS 105	Orientation to the Transportation Industry	1	Technical Studies
TAS 124	Electrical I	3	Technical Studies
TAS 160	Transportation Industry Safety	1	Technical Studies
MTH	Math Elective*	3	General Studies

Spring

Course #	Course Title	Credits	Function
EQP 132	Fuel & Exhaust Systems	3	Technical Studies
EQP 180	Fluid Power	4	Technical Studies
EQP 225	Control Panels and Data Links	5	Technical Studies
ENG 101	Composition I*	3	General Studies

Summer

Course #	Course Title	Credits	Function
EQP 230	Automatic Transfer Switches	5	Technical Studies

Fall

Course #	Course Title	Credits	Function
EQP 235	Voltage Regulation	5	Technical Studies
TAS 125	Electrical II	3	Technical Studies
TAS 225	Electrical III	2	Technical Studies
	Humanities Elective*	3	General Studies

Spring

Course #	Course Title	Credits	Function
EQP 240	Generators & EPG Calculations	5	Technical Studies

TAS 131	Engine Performance I	3	Technical Studies
	Communication Elective*	3	General Studies
	Social Science Elective*	3	General Studies

* **Kansas Systemwide General Education**

Associate of Applied Sciences, Mobile Equipment Technology

Total Credits 61

Fall

Course #	Course Title	Credits	Function
EQP 121	Diesel Engine Repair	4	Technical Studies
EQP 210	Dealership Fundamentals	2	Technical Studies
TAS 105	Orientation to the Transportation Industry	1	Technical Studies
TAS 124	Electrical I	3	Technical Studies
TAS 160	Transportation Industry Safety	1	Technical Studies
MTH	Math Elective*	3	General Studies

Spring

Course #	Course Title	Credits	Function
EQP 132	Fuel & Exhaust Systems	3	Technical Studies
EQP 180	Fluid Power	4	Technical Studies
TAS 128	Heating & Air Conditioning	4	Technical Studies
ENG 101	Composition I*	3	General Studies

Summer

Course #	Course Title	Credits	Function
EQP 206	Powertrain Systems	4	Technical Studies
EQP 220	Advanced Fluid Power	2	Technical Studies

Fall

Course #	Course Title	Credits	Function
TAS 125	Electrical II	3	Technical Studies
TAS 133	Brakes I	3	Technical Studies
TAS 136	Suspension and Steering I	3	Technical Studies
TAS 225	Electrical III	2	Technical Studies
	Humanities Elective*	3	General Studies

Spring

Course #	Course Title	Credits	Function
TAS 131	Engine Performance I	3	Technical Studies
EQP 134	Machine Specific Systems	1	Technical Studies

EQP 135	Mobile Equipment Diagnostics Test	3	Technical Studies
	Communication Elective*	3	General Studies
	Social Science Elective*	3	General Studies

* **Kansas Systemwide General Education**

Technical Certificate, Mobile Equipment Technology

Total Credits 49

Fall

Course #	Course Title	Credits	Function
EQP 121	Diesel Engine Repair	4	Technical Studies
EQP 180	Fluid Power	4	Technical Studies
EQP 220	Advanced Fluid Power	2	Technical Studies
TAS 105	Orientation to the Transportation Industry	1	Technical Studies
TAS 124	Electrical I	3	Technical Studies
TAS 128	Heating & Air Conditioning	4	Technical Studies
TAS 136	Suspension and Steering I	3	Technical Studies
TAS 160	Transportation Industry Safety	1	Technical Studies

Spring

Course #	Course Title	Credits	Function
EQP 132	Fuel & Exhaust Systems	3	Technical Studies
EQP 135	Mobile Equipment Diagnostics Test	3	Technical Studies
EQP 206	Powertrain Systems	4	Technical Studies
TAS 125	Electrical II	3	Technical Studies
TAS 131	Engine Performance I	3	Technical Studies
TAS 133	Brakes I	3	Technical Studies
MTH	Math Elective*	3	General Studies

Summer

Course #	Course Title	Credits	Function
EQP 134	Machine Specific Systems	1	Technical Studies
EQP 210	Dealership Fundamentals	2	Technical Studies
TAS 225	Electrical III	2	Technical Studies

* **Kansas Systemwide General Education**

