APPLIED ENGINEERING & TECHNOLOGIES

CONSTRUCTION EQUIPMENT SYSTEMS TECHNOLOGY

Construction Equipment Systems Technology Degree - A60450

Construction Equipment Systems curriculum is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair construction equipment systems. Construction equipment includes dozers, scrapers, loaders, and forklifts.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for engines and electrical and hydraulics systems. The concentration courses will include transmissions, brakes, undercarriage, and equipment repair. Other related courses will be required.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses that repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Construction Equipment Systems Technology Diploma - D60450

Hydraulics, Engines, and Transmissions Certificate- C60450BB

This certificate is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair hydraulics, engines, and transmissions in construction equipment.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for engines and hydraulics systems. The concentration courses will also include transmissions.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses, which repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Fuel Injection, Electrics, & Electronics Certificate – C60450BC

This certificate curriculum is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair fuel injection, electrical, and electronic systems in construction equipment. Construction equipment includes dozers, scrapers, loaders, and forklifts.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for electrical and electronic systems. The concentration courses will also include fuel injection systems.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses, which repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Program Sequence

First Semester

TRN	110	Intro to Transportation Tech	2
TRN	120	Basic Transportation Electricity	5
TRN	120A	Basic Transportation Electricity Lab	1
TRN	140	Transportation Climate Control	2
TRN	170	PC Skills for Transportation	2
ENG	110	Freshman Composition	3
Elective List I			2

Second Semester

HET	110	Diesel Engines	6
PME	118	Undercarriage Components	2
PME	221	Construction Equipment Servicing	2
MAT	110	Math Measurement & Lit	3
Elective List II			2

Third Semester

Elective List III			2

Fourth Semester

HET	114	Power Trains	5
HYD	134	Hydraulic/Hydrostatic Construction	4
PME	117	Equipment Braking Systems	3
COM	120	Interpersonal Communication	3
PSY	118	Interpersonal Psychology	3

Complete Hydraulics, Engines, and Transmission Certificate (C60450BB): Choose 2 hours from Elective List 2 + HET 110, HET 114

Fifth Semester

HET	125	Preventative Maintenance	2
HET	134	Mechanical Fuel Injection	3
PME	211	Advanced Equipment Repair	4
HUM	121	The Nature of America	3
Elective List I			4

Complete Fuel Injection, Electrical, and Electronics Certificate (C60450BC): Choose 4 hours from Elective List 1 + HET 134, TRN 120

Complete Construction Equipment Systems Technology Diploma (D60450): Choose 4 hours from Elective List 1 + ENG 110, HET 110, HET 114, HET 134, HYD 134, PME 117, PME 118, PME 221, PSY 118, TRN 110, TRN 120, TRN 120A, TRN 140, TRN 170

Elective List I (Select 6 hours from the following courses):

ELN	110	Survey of Electronics	3
ELN	112	Diesel Electronics System	4
ELN	113	Electronic Fuel Injection	2
HET	115	Electronic Engines	3
HET	128	Medium/Heavy Duty Tune-up	2
HET	192	Selected Topics	2

Elective List II (Select 2 hours from the following courses):

HYD	110	Hydraulics/Pneumatics I	3
HYD	111	Mobile Hydraulic Systems	3
HYD	112	Hydraulics/Medium/Heavy Duty	2

Elective List III (Select 2 hours from the following courses):

WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WLD	112	Basic Welding Processes	2

Graduation Requirements ..... 68 Credit Hours