DIESEL TECHNOLOGY SPECIALIZED IN HEAVY EQUIPMENT Uvalde Campus

Purpose

The purpose of the Diesel Technology Specializing in Heavy Equipment program is to provide students with training in maintaining, troubleshooting, and repairing heavy diesel-powered equipment. Coursework emphasizes diesel engines, hydraulics, electrical, air conditioning, and diesel fuel injection systems. The goal of the program is for graduates to be employable as entry-level technicians in a heavy equipment diesel engine service shop, dealership, or industry.

Admission Requirements

Students are admitted to the Diesel Technology program through regular college admission procedures (see Admission Regulations section).

Students will receive a Level One Certificate and/or an Associate of Applied Science (A.A.S.) degree upon satisfactory completion of the program of study and upon making a formal application for graduation (See Curricula section). The Diesel Technology Specialized in Heavy Equipment Program carries three award options, a Level One Basic Certificate, a Level One Advanced Certificate, and an A.A.S. degree. The Level One Certificates are TSI exempt; however, those not meeting TSI requirements are encouraged to enroll in the appropriate developmental course(s).

Students who wish to pursue the A.A.S. degree must meet all Texas Success Initiative (TSI) requirements.

DIESEL TECHNOLOGY SPECIALIZED IN HEAVY EQUIPMENT - BASIC LEVEL ONE CERTIFICATE

Program of Study

Fall Semester	Credit	Spring Semester	<u>Credit</u>
EDUC 1300π Learning Framewo	ork	DEMR 1406 ¹ Diesel Engir	ne I4
Or COLS 0300 College Success	Skills	DEMR 1421 Power Train	l4
DEMR 1305 Basic Electrical Sys	tems3	DEMR 1416 Basic Hydrau	ulics4
DEMR 1329 Preventative Main	tenance3		
DEMR 1317 Basic Brake System	ıs3	Tot	tal12 Credits
Total	9 Credits	Total Hours For (Certificate21 Credits

Notes: π All students are required to take EDUC 1300 or COLS 0300; however, EDUC 1300/COLS 0300 do not count toward degree requirements

1 Capstone course that consolidates the student's learning experiences.

DIESEL TECHNOLOGY SPECIALIZED IN HEAVY EQUIPMENT - ADVANCED LEVEL ONE CERTIFICATE

Program of Study

Fall Semester	<u>Credit</u>	Spring Semester	Credit
HEMR 1401 Track and Undercarr DEMR 1435 Automatic Power Sh Hydrostatic Transmissions DEMR 1423 Diesel HVAC Trouble Repair	ift and 4 shooting &	DEMR 2348 Failure Analysis DEMR 2432 Electronic Controls DEMR 2335 Advanced Hydraulics. DEMR 2281 ¹ Co-op Education Dies	4
Total	12 credits	Total Total Hours For Certifica	12 Credits

Notes: 1 Capstone course that consolidates the student's learning experiences

DIESEL TECHNOLOGY SPECIALIZED IN HEAVY EQUIPMENT – ASSOCIATE OF APPLIED SCIENCE

General Education Courses:

Social & Behavioral Sciences 3 Humanities & Fine Arts 3 Natural Science & Math 3 Other 6

Total General Education Courses	
Technical Education Courses	45
Total Credit Hours for A.A.S	

Program of Study

First Year

Fall Semester	<u>Credit</u>	Spring Semester	Credit
DEMR 1305 Basic Elec	trical Systems3	DEMR 1406 Diesel Engine	e I4
DEMR 1329 Preventat	ive Maintenance3	DEMR Power Train I	4
DEMR 1317 Basic Brak	e Systems3	DEMR Basic Hydraulics	4
	Total9 credits	٦	Total12 credits

Program of Study

Second Year

Fall Semester	<u>Credit</u>	Spring Semester	<u>Credit</u>
HEMR 1401 Track and Underca DEMR 1435 Automatic Power Hydrostatic Transmission DEMR 1423 Diesel HVAC Trouk Repair	Shift and s4 bleshooting &	DEMR 2348 Failure Analysis DEMR 2432 Electronic Controls DEMR 2335 Advanced Hydraulics DEMR 2281 ¹ Co-op Education Diesel	4 3
Total.	12 credits	Total1	.2 Credits

Program of Study

Third Year

Fall Semester	Credit
PSYC 2301 General Psychology	3
ENGL 1301 Composition I	3
MATH 1332 Contemporary Mathematics	3
SPCH 1321 Business & Professional Commu	nication.3
Humanities and Fine Arts	3

Total......15 Credits
Total Credit For AAS is 60 Credit Hours

Notes: 1 Capstone course that consolidates the student's learning experiences.

Tuition and Fees

Standard tuition and fees are assessed to each student as indicated in the finances section. Lab and uniform fees are also assessed (see Course Descriptions). Each student can also expect to purchase the following required textbooks and tools.

1 Tool Set* (approximate cost)	\$600
* A tool list will be provided by the instructor.	
Textbooks (approximate cost)	\$225

1106	osed AA	S Diese	Techno	ology Specialized in H	eavy
			Equipn	nent	
			Semest	ter 1	
Class Name	e:				Credits:
EDUC 1300	Learning F	ramework			
or					
COLS 0300	College Suc	cess Skills			
		ive Mainten	ance		3
DEMR 130	5 Basic Elec	trical Systen	ns		3
DEMR 131	7 Basic Brak	e Systems			3
				Semester Total:	9
			Semes	ter 2	
Class Nam	e:				Credits:
DEMR 140	6 Diesel Eng	gine I			4
DEMR 142	1 Power Tra	ain I			4
DEMR 141	6 Basic Hyd	raulics			4
				Semester Total:	12
Γ			C	t2	t.
Class Nam			Semes	ter 3	
		1	1	l .	Cunditor
		d Undercare	ingo		Credits:
HEMR 140	1 Tracks an	d Undercarr		ostatic Transmissions I	Credits:
HEMR 140 DEMR 143	1 Tracks an 5 Automati	c Power Shi	ft and Hydr	ostatic Transmissions I	Credits: 4
HEMR 140 DEMR 143	1 Tracks an 5 Automati		ft and Hydr	Repair	4 4 4
HEMR 140 DEMR 143	1 Tracks an 5 Automati	c Power Shi	ft and Hydr		4 4 4
HEMR 140 DEMR 143	1 Tracks an 5 Automati	c Power Shi	ft and Hydroshooting & I	Repair Semester Total:	4 4 4
HEMR 140 DEMR 143 DEMR 142	1 Tracks an 5 Automati 3 Diesel HV	c Power Shi	ft and Hydr	Repair Semester Total:	4 4 12
HEMR 140 DEMR 143 DEMR 142 Class Nam	1 Tracks an 5 Automati 3 Diesel HV	c Power Shi AC Troubles	ft and Hydroshooting & I	Repair Semester Total:	4 4 4 12 Credits:
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234	1 Tracks an 5 Automati 3 Diesel HV	c Power Shi AC Troubles	ft and Hydroshooting & I	Repair Semester Total:	4 4 12 Credits:
DEMR 140 DEMR 142 Class Nam DEMR 234 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 2 Electronic	c Power Shi AC Troubles analysis c Controls	shooting & I	Repair Semester Total:	4 4 12 Credits:
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234 DEMR 243 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 52 Electronic 1 Co-op Ed	C Power Shi AC Troubles nalysis C Controls ucation Dies	Semes	Repair Semester Total:	4 4 12 Credits: 3 4 2
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234 DEMR 243 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 52 Electronic 1 Co-op Ed	c Power Shi AC Troubles analysis c Controls	Semes	Repair Semester Total:	4 4 12 Credits: 3 4 2 3
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234 DEMR 243 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 52 Electronic 1 Co-op Ed	C Power Shi AC Troubles nalysis C Controls ucation Dies	Semes	Semester Total: ter 4	4 4 12 Credits: 3 4 2 3
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234 DEMR 243 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 52 Electronic 1 Co-op Ed	C Power Shi AC Troubles nalysis C Controls ucation Dies	Semes	Semester Total: ter 4 Semester Total:	4 4 12 Credits: 3 4 2 3
HEMR 140 DEMR 143 DEMR 142 Class Nam DEMR 234 DEMR 243 DEMR 243	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 2 Electronic 1 Co-op Ed	C Power Shi AC Troubles nalysis C Controls ucation Dies	Semes	Semester Total: ter 4 Semester Total:	4 4 12 Credits: 3 4 2 3
Class Nam DEMR 243 DEMR 243 DEMR 234 DEMR 233 DEMR 233	1 Tracks an 5 Automati 3 Diesel HV e: 8 Failure Ar 2 Electronic 1 Co-op Ed	nalysis c Controls ucation Dies	Semes	Semester Total: ter 4 Semester Total:	4 4 4 12 Credits: 3 4 2 3 12
Class Nam DEMR 243 DEMR 243 DEMR 228 DEMR 233 Class Nam PSYC 2301	1 Tracks an 5 Automati 3 Diesel HV 1	c Power Shi AC Troubles nalysis c Controls ucation Dies Hydraulics	Semes	Semester Total: ter 4 Semester Total:	4 4 12 Credits: 3 4 2 3 12 Credits:
Class Nam DEMR 243 DEMR 243 DEMR 228 DEMR 233 Class Nam PSYC 2301 ENGL 1302	1 Tracks an 5 Automati 3 Diesel HV 1	c Power Shi AC Troubles nalysis c Controls ucation Dies Hydraulics	Semes Semes	Semester Total: ter 4 Semester Total:	4 4 12 Credits: 3 4 2 3 12 Credits:
Class Nam DEMR 243 DEMR 243 DEMR 243 DEMR 233 DEMR 233 Class Nam PSYC 2301 ENGL 1303 MATH 133	1 Tracks an 5 Automati 3 Diesel HV 1	c Power Shi AC Troubles nalysis c Controls ucation Dies I Hydraulics	Semes Semes Semes	Semester Total: ter 4 Semester Total: Semester Total:	Credits: 3 4 2 3 12 Credits: 3 3 3 3 3 3 3
Class Nam DEMR 243 DEMR 243 DEMR 243 DEMR 228 DEMR 233 Class Nam PSYC 2301 ENGL 1303 MATH 133 SPCH 1323	1 Tracks an 5 Automati 3 Diesel HV 1	c Power Shi AC Troubles nalysis c Controls ucation Dies Hydraulics ychology on I orary Mathe	Semes Semes Semes	Semester Total: ter 4 Semester Total: Semester Total:	Credits: 3 4 2 3 12 Credits: 3 3 3 3 3 3 3

Prop	osed Le	vel 1 Basi	ic Diesel Techn	ology
	Progr	am- Kub	ota Academy	
TSI Exemp	t			
		Semes	ster 1	
Class Nam	e:			Credits:
or	Learning F			
		trical Systems	c	3
		ive Maintena		3
	7 Basic Brak			3
			Semester Total:	
		Semes	stor 2	
Class Nam	٥.	Jennes	1	Credits:
Persone Person	6 Diesel Eng	ine I		Δ
	1 Power Tra			4
150-110-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	6 Basic Hyd			4
			Semester Total:	12

Program Total: 21 Credits

Kubota Pre-Delivery Inspection & Assembly NC3 Certification
Kubota Preventative Maintenance Inspection NC3 Certification
Kubota Electrical NC3 Certification

ASE Medium/Heavy Truck Brakes Entry-level Certification
ASE Medium/Heavy Truck Electrical Entry-level Certification

Proposed	Level 1	Advanc	ed Dies	el
Technology	Progran	n- Kubot	ta Acade	emy
TSI Exempt				
	Seme	ster 1		
Class Name:				Credits:
EDUC 1300 Learning Fr	amework			
or				
COLS 0300 College Suc	cess Skills			
HEMR 1401 Tracks and	Undercarr	iage		4
DEMR 1435 Automatic	Power Shif	t and Hydro	static Trans	4
DEMR 1423 Diesel HVA	AC Troubles	hooting & R	epair	4
		Seme	ester Total:	12
	Seme	ster 2		
Class Name:				Credits:
DEMR 2348 Failure An	alysis		•	3
DEMR 2432 Electronic	Controls			4
DEMR 2335 Advanced	Hydraulics			3
DEMR 2180 Co-op Edu	cation Dies			2
		Seme	ester Total:	12

Program Total: 24 Credits

Kubota Maintenance Procedures NC3 Certification Kubota Engines, Hydraulics, Powertrain NC3 Certification Kubota Brakes, Steering, Suspension NC3 Certification

ASE Diesel Engines Entry-level Certification
ASE Suspension & Steering Entry-level Certification

Southwest Texas Junior College Curriculum Committee Submission Form

and the second s	□Revision	□Deletion
Policy Title:	Source:	Page Number:
Why is this policy change needed?		
	ů.	
Attached proposed policy cha	ange.	
		70
5. Site Change (please select one	of the options below)	
☑ New Site	☑ Site Status	☐ Site Deletion
Name of site: Uvalde Campus Diesel Clas	sroom and Lab	Start Date:Fall 2024
Date:	Division Chart	Date: 11/6/23
ignature of Faculty or Administrator	Division Chair	Date: 11/6/23
Date:	Division Chair	Date: 11/6/23 Date: 4 Nov 2023
gnature of Faculty or Administrator	Division Chair	Date: 11/6/23 Date: 4 Nov 2023
gnature of Faculty or Administrator	Division Chair II (6/2023 Vice President	Date: 11/6/23 Date: 4 Nov 2023
gnature of Faculty or Administrator August Date:	Division Chair II (6/2023 Vice President The system of	Date: 11/6/23 Date: 11/6/23 Date: 11/6/23
gnature of Faculty or Administrator Date: Date: urriculum Committee Action: Reco	Division Chair I (6 2 • 2 3	

Attach copy of Board Minutes showing Approval