

Heavy Duty Diesel Technology

Admissions Information

Application Materials

Students wanting to apply for a degree seeking program at the College of Eastern Idaho (CEI) must submit all of the following application materials for review. Admissions counselors will evaluate the application documents to ensure everything has been completed correctly.

- Application for admission
- High School or GED Transcripts, must be official copies
- <u>Official</u> Transcripts from <u>all</u> post-secondary institutions attended
- Math and English placement

Placement Scores

Students at CEI must have current placement into our basic math and English classes. If you need to take the ALEKS or Gain exams in order to prove placement you can schedule a time with our Testing Center by calling 208-535-5438.

Common tests and placement scores that we require are as follows:

Placement Test	English Score	Math Score
ACT	19 or higher	17 or higher
SAT	500 or higher	430 or higher
ALEKS Math	-	14 or higher
Accuplacer	237 or higher	-

Transfer Credits

If you have attended any other colleges or universities (including course work from Early College or Dual Enrollment programs) you will need to send <u>all</u> of your official transcripts to CEI. It's possible for previously completed courses to transfer in to fulfill specific degree requirements. Please note the following guidelines for transfer course work:

- All transfer classes must have a final grade of a C or higher
- Some classes (like math and biology) can expire after 5 years
- Previously completed classes are not guaranteed to transfer to CEI due to accreditation policies and equivalency guidelines

An admissions counselor can do an unofficial review of your transfer credits. The official transcript evaluation is done after the admissions process is completed and will be available to the student at orientation.

Student Orientation, Advising, and Registration (SOAR)

After you have received an acceptance letter to the college you will be required to attend a Student Orientation, Advising, and Registration or SOAR event. During SOAR we cover important policy information, review specific program information, set up computer access, and show students how to enroll in their classes.

Financial Aid

This program is financial aid eligible. You can apply for Federal financial aid online at <u>www.fafsa.ed.gov</u>. Our school code is: 0011133. If you have any questions after you have applied please contact our Financial Aid office in building 3, room #347 or call 208-535-5374.

DT Program Information

The Heavy Duty Diesel (DT) program is comprised of two different certificates/degrees. There is an Associates of Applied Science degree (AAS), Advanced Technical Certificate (ATC), and Intermediate Technical Certificate (ITC).

- The AAS is a 69 credit, 4 semester, program that includes general education courses.
 - It is recommended students take the general education courses before or after the program.
- The ATC is a 54 credit, 4 semester, program.
- The ITC is a 30 credit, 2 semester, program.

When students are accepted into the DT program they will be placed into a cohort for the fall semester.

Program Overview

Heavy Duty Diesel students will spend approximately two hours per day in the classroom and 4 ½ hours performing hands-on training in the labs. Students will develop the necessary skills a technician needs in order to repair, service, and overhaul a variety of vehicles and machines. Complex problem solving skills will be used regularly to perform routine maintenance and diagnostic repairs. Additionally, students will utilize and build their mechanical aptitudes and computer and math skills.

All instructors are Automotive Service Excellence (ASE) certified. CEI has adopted the eight ASE areas as guidelines for the Automotive Program (Medium - Heavy Truck T1 – T8). The program is designed to give students practical experience on order to meet ASE certification standards. Throughout the practical experience, troubleshooting and repair experiences will be performed on mock-ups and live work projects in the college lab.

The hands-on experience students receive in this program will prepare them for work in a large variety of facilities. Many of our graduates are working at large and small dealerships, auto part dealers, national and local automotive chains, transmission and specialty shops, state and federal transportation departments, service stations, truck stops, semi-truck and farm equipment dealers, and in agriculture.

Program Requirements

In order for students to be accepted into the Heavy Duty Diesel program they must complete the CEI application process (see page 1)

Once in the program, students must pass their program specific courses with a minimum grade of C (75%) or higher and must be passed consecutively before continuing on to the next course.

Expectant graduates may be required to sit for proficiency exams at the conclusion of their program. Information regarding costs and dates for the exams will be posted in the online catalog and will be available from the program instructor(s).

Attendance Policy

- Students are allowed to miss one day a month.
- Classes start promptly at 8:00 AM.
- If you will be late or absent you must call or email the appropriate people ahead of time.
- Consequences are enforced if rules are not followed.
- *Refer to your instructor to verify what their specific policy is.

Competitive Program

The Heavy Duty Diesel program is competitive. There are 11 seats available each Fall semester. Students will be put on our waitlist in the order we receive their application materials. In order to increase your chances of entering the program early you must submit your application, transcripts, and test scores to CEI as soon as possible. If a student is not accepted into the program for the fall they will remain on the waitlist until they are accepted.

Message from the Faculty

- "It will not be an easy program"
- "There is more technology involved than you think so be prepared"
- "You will spend 1/3 of your time in the classroom"

Message from the students

- "You will use a computer more than expected"
- "The hands-on experience is awesome, you learn from the book and practice in the shop"
- "Investigate what you want to do, know the difference between programs"
- "You will need to buy tools but it is not essential before you start. There will be discounts for tools once you are a student"
- "There are a lot of resources available for women entering the field."
- "On-the-job training is very beneficial, you not only learn practical skills but you are taught how to operate in the workforce"
- "Take it seriously, there is a lot of work your first semester so don't slack off"
- "Be present for lectures, you learn a lot of important information from the professors"
- "Most of the heavy duty vehicles you work on are semi-trucks, there is not much opportunity to work on construction or farm equipment"

Contacting Admissions

If you have any questions about the Heavy Duty Diesel program, or the application process we would be happy to go over it with you.

To schedule an appointment

Student Affairs Room #311 Phone: 208-535-3000

Admissions Counselor

Jaime Campbell-Lavallee Phone: 208-535-5612 Email: jaime.campbell@cei.edu

Program Specific Questions

Kent Berggren Phone: 208-535-5356 Email: <u>Kent.Berggren@cei.edu</u>

HD Specific Questions

Don Martin Phone: 208-535-5364 Email: <u>Don.Martin@cei.edu</u>

Program Cost

Costs are subject to change.

Associates of Applied Science

A fee covering the certification exams will be assessed in the semester in which they are taken

DT. AAS Tuition		
Semester 1	\$1,935.00	
Semester 2	\$1,935.00	
Semester 3	\$1,548.00	
Semester 4	\$1,548.00	
Gen. Ed	\$1,935.00	
	\$8,901.00	

DT. AAS Books	
Semester 1	\$375.00
Semester 2	\$150.00
Semester 3	\$0.00
Semester 4	\$0.00
Gen. Ed	\$300.00
	\$825.00

DT. AAS Fees and Supplies		
Coveralls	\$220.00	
Supply/Comp. Fees	\$100.00	
TSA Exam	\$30.00	
Certification	\$35.00	
Tools	\$4,000.00	
	\$4,385.00	
	\$1/555100	

Totals	
Tuition	\$8,901.00
Books	\$825.00
Fees/Tools	\$4,385.00
	\$14,111.00

Advanced Technical Certificate A fee covering the certification exams will be assessed in the semester in which they are taken

DT. ATC Tuition	
Semester 1	\$1,935.00
Semester 2	\$1,935.00
Semester 3	\$1,548.00
Semester 2	\$1,548.00
	\$6,966.00

DT. ATC Books		
Semester 1	\$375.00	
Semester 2	\$150.00	
Semester 3	\$0.00	
Semester 4	\$0.00	
	\$525.00	

DT. ATC Fees and Supplies	
Coveralls	\$220.00
Supply/Comp. Fees	\$85.00
TSA Exam	\$30.00
Certification	\$35.00
Tools	\$4,000.00
	\$4,370.00

Totals		
Tuition	\$6,966.00	
Books	\$525.00	
Fees/Tools	\$4,370.00	
	\$11,861.00	

Intermediate Technical Certificate A fee covering the certification exams will be assessed in the semester in which they are taken

DT. ITC Tuition		
Semester 1	\$1,935.00	
Semester 2	\$1,935.00	
	\$3,870.00	

DT. ITC Books	
Semester 1	\$375.00
Semester 2	\$150.00
	\$525.00

DT. ITC Fees and Supplies	
Coveralls	\$110.00
Supply/Comp. Fees	\$50.00
TSA Exam	\$30.00
Certification	\$35.00
Tools	\$4,000.00
	\$4,225.00

Tot	tals
Tuition	\$3,870.00
Books	\$525.00
Fees/Tools	\$4,225.00
	\$8,620.00

SOC 101	PSYC 101		ENGL 101	MATH 123	COMM 101		Course				ASE 206L	ASE 206	Course		ASE 205L	ASE 205	Course		ASE 105L	ASE 105	ASE 102	Course		MTD 110	MTD 103	ASE 173	ASE 165	ASE 164	ASE 133	ASE 114	Course
Introduction to Sociology	Introduction to Psycholog	Choose One of the Followi	Writing and Rhetoric I	Math in Modern Society	Fundamentals of Commu	Any General Education E	Course Name	before or after th	It is recommended su	Required Gener	Diesel Lab III	Diesel Theory III	Course Name	Spring Semester 4	Diesel Lab II	Diesel Theory II	Course Name	Fall Semester 3	Diesel Lab I	Diesel Theory I	Workplace Technical Skills	Course Name	Spring Semester 2	Mechanics Technical Math	Auto/Diesel Tech Fundame	Auto/Diesel Basic HVAC	Electrical Systems	Intro to Electrical	Manual Drive-Train	Engine Repair	Course Name
	Y	6g			nication	lective		e program, not during	udents take these courses	al Education Courses														TTH 10-11	ntals & Safety MW 10-11	11/11 – 12/6MTWTH 8-10	9/3 – 9/20 MTWTH 8-10	8/19 - 8/30 MWTTH 8-10	10/21 - 11/8 MTWTH 8-10	9/23 - 10/18 MTWTH 8-10	
33	3		3	3	3	3	Credits				6	6	Credits		6	6	Credits		6	6	ω	Credits		2	2	2	ω		2	ω	Credits

	Fall Semester 1			
Course	Course Name			Credits
ASE 114	Engine Repair	9/23 - 10/18 MTW	VTH 8-10	3
ASE 133	Manual Drive-Train	10/21 - 11/8 MTW	7TH 8-10	2
ASE 164	Intro to Electrical	8/19 - 8/30 MWT	TH 8-10	1
ASE 165	Electrical Systems	9/3 – 9/20 MTW	7TH 8-10	3
ASE 173	Auto/Diesel Basic HVAC	11/11 - 12/6MTW	7TH 8-10	2
MTD 103	Auto/Diesel Tech Fundamer	ntals & Safety M	fW 10-11	2
MTD 110	Mechanics Technical Math	11	TH 10-11	2
	Spring Semester 2			
Course	Course Name			Credits
ASE 102	Workplace Technical Ski	lls		3
ASE 105	Diesel Theory I			6
ASE 105L	Diesel Lab I			6

Heavy Duty Diesel Tech Associate of Applied Science (AAS) 69 Credits / Financial Aid Eligible

Heavy Duty Diesel Tech Advances Technical Certificate (ATC) 54 Credits / Financial Aid Eligible

	Spring Semester 2	
Course	Course Name	Credits
ASE 102	Workplace Technical Skills	3
ASE 105	Diesel Theory I	6
ASE 105L	Diesel Lab I	6
	Fall Semester 3	
Course	Course Name	Credits
ASE 205	Diesel Theory II	6
ASE 205L	Diesel Lab II	6

	Inte	
30 Credits / Fi	rmediate Tech	Heavy Du
nancial Aid E	unical Certifi	ity Diesel Te
ligible	cate (ITO	ch

	Fall Semester 1		
Course	Course Name		Credits
ASE 114	Engine Repair	9/23 - 10/18 MTWTH 8-10	3
ASE 133	Manual Drive-Train	10/21 - 11/8 MTWTH 8-10	2
ASE 164	Intro to Electrical	8/19 - 8/30 MWTTH 8-10	1
ASE 165	Electrical Systems	9/3 – 9/20 MTWTH 8-10	3
ASE 173	Auto/Diesel Basic HVAC	11/11 - 12/6MTWTH 8-10	2
MTD 103	Auto/Diesel Tech Fundame	entals & Safety MW 10-11	2
MTD 110	Mechanics Technical Math	TTH 10-11	2
	2		

	Spring Semester 2	
Course	Course Name Credits	
ASE 102	Workplace Technical Skills 3	
ASE 105	Diesel Theory I 6	
ASE 105L	Diesel Lab I 6	

ASE 206L Course ASE 206

Spring Semester 4 Course Name Diesel Theory III Diesel Lab III

Credits

6 6

Program Course

Bold indicates it is a general education course and can be taken during any semester.

DT Student Tool List

The following is a generic list of the tools required for the diesel program. It is important that students begin their professional repair career by purchasing "professional mechanic grade tools". Questions regarding the suitability of specific tools should be directed to your individual instructor.

First Year Diesel

- 1. Safety glasses/goggles
- 2. Four drawer tool cart with locking device and key (*)
- 3. 3/8" Drive socket set, consisting of the following:
 - 6 point shallow and deep well metric sockets 8mm thru 21mm
 - Extensions 1", 3", 6", 9", 12" and 18"
 - 3/8" drive universal
 - Ratchet 45 tooth, 8"long reversible (*)
- 4. 1/2" Drive socket set consisting of the following:
 - 6 point shallow and deep metric sockets: 10mm-27mm
 - Extensions 2, 3, 6, and 10"
 - Ratchet 45 tooth, 11" reversible; (*)
 - 1/2" Breaker bar/flex handle (16"minimum)
 - 1/2" drive universal
- 5. SAE and Metric combination wrenches in the following sizes; 1/4"-1 ¹/4" in 1/16th" increments and 7mm thru 27mm.
- 6. SAE and Metric Tubing/line wrenches 3/8" thru 13/16" and 9mm thru 18mm
- 7. Adjustable wrenches: 8" & 12"
- 8. Hammers:
 - Slim line compo thane hammer (*),
 - Dead blow head (1-1/2# x 12" handle)
 - 3# Sledge Hammer (*)
 - 16 oz. Ball peen
- 9. Pliers:
- 6" combination slip-joint pliers: 1" maximum jaw opening, 1-1/4" jaw throat depth (*); 7"diagonal cutting pliers (side cutter), rubber grips (*);
- / diagonal cutting pilets (side cutter), tubber grips (*),
- 7" needle nose pliers with rubber grip, 2-5/8 jaw depth (*);
- 10" Rib lock pliers (water pump) 5adjustment, 1-1/2" capacity (*);
- 10" lever jaw wrench pliers (vise grip) 2 straight jaws (*)
- 6" lever jaw wrench pliers (vise grip) 2 curved jaws (*)
- 6" lever jaw needle nose pliers (vise grip) (*)
- Wire stripper/crimper tool
- 10. Screwdrivers with shatterproof handles:
 - Flat blade 6" round shank, 4" square shank, 6" square shank, 1-3/4" stubby, 1/8 x 2" pocket Phillips #1 3" long, #2 6" long, #2 stubby

Torx screwdrivers (T8-T40)

- 11. Hex key sets 1/16" thru 3/8" and 1.5mm thru 10mm
- 12. Chisels and Punches:
 - Cold chisels: 7/16 x 5-1/2" 5/8 x 6-1/2"; Pin punches 1/8, x 4-7/8, 5/32 x 5-1/8, 1/4 x 5-7/8, and 5/16 x 1;
 - Center punch $3/8 \ge 1$
- 13. 1/2" drive 25-250 ft-lbs Torque Wrench
- 14. Flat file- 10" mill bastard, with shatter-proof handle
- 15. Air blow gun-lever type safety blow gun, with rubber tipped nozzle
- 16. Tire inflator
- 17. Prybars:
 - 15" pry bar (lady slipper or rolling head style)

- 12" pry bar with shatter proof handle
- 18" pry bar with shatter proof handle
- 24" pry bar with shatter proof handle
- 36" pry bar with shatterproof handle
- Master feeler gauge from .0015' to .035: 25 blades approximately 3-5/16 x 1/2" and Brass feeler gauges .008" - .035"
- 19. Adjustable hacksaw, 12" blade minimum
- 20. Oil filter wrenches, or belt type (*)
- 21. Continuity test light, 12 volt with 2' lead and alligator ground clamp (*)
- 22. Gasket Scraper
- 23. Magnetic pick up tool
- 24. Mechanics Mirror
- 25. Drop light/flashlight (corded or cordless)
- 26. Battery service tool kit
- 27. 0-6" dial caliper
- 28. 10 ft. Steel tape rule, with locking blades and automatic rewind, at least 1/2" wide (*)
- 29. Wire brush (hand held) 10" length wood handle(*)
- 30. 1/2 Inch drive Impact Wrench minimum 600 ft-lbs. Torque at 90 PSI
- 31. Creeper

SUGGESTED SECOND YEAR DIESEL TOOL LIST

- 1. 45"x 38"x 22" roll-away with 5" casters, complete with locking device and key (*)
- 2. 22" x 38" x 22" Top box tool chest with locking device and key (*)
- 1/2" socket set consisting of the following: 6 and 12 point shallow and deep well SAE sockets: 7/16"- 1 1/2 "
- 4. Deep impact axle nut sockets 30mm, 32mm, and 36mm
- 5. 1/2" Drive air cordless impact wrench minimum 600 ft-lbs. Torque
- 6. 1/2" Drive metric impact socket 6 point 10mm thru 36mm
- 7. 1/2" Drive SAE impact socket set 6 point 3/8 thru 1 $\frac{1}{2}$
- 8. 1/2" Drive impact universal
- 9. 1/2" Dive 3, 5, and 10 inch impact extensions
- 10. 1/2" drive 24" long breaker bar
- 11. 1/2" drive to 3/4" drive adapter
- 12. 3/4" to 1/2" drive adapter
- 13. 3/4" to 1" drive adapter
- 14. 3/4" Impact 1000 lbs/ft minimum
- 15. 3/4" impact sockets 3/4" 1 1/2"
- 16. 1 inch drive impact sockets: 1" 2"
- 17. Hub Nut Sockets
- 18. 5/8" extra deep Jake brake socket
- 19. Combination wrenches 1-1/4" thru 2"
- 20. SAE and Metric combination Gear wrench sets(3/8"-3/4", 8mm-19mm)
- 21. 3/4" Cummins valve adjuster wrench M1322 (*)
- 22. SAE and Metric thread files
- 23. Tap and die set standard and metric
- 24. Corded/cordless/air 3/8" chuck drill and drill bits thru 1/2 inch
- 25. Corded 1/2" chuck drill
- 26. Bolt extractor set 1/4 to 1-3/4 multi-spline
- 27. Spicer clutch adjuster tools
- 28. Trailer cord tester
- 29. Torque angle gauge.
- 30. Gear puller set
- 31. Fluke meter MT 87 (*)

