

IDAHO STATE UNIVERSITY COLLEGE OF TECHNOLOGY

PROGRAM TITLE: DIESEL/ON-SITE POWER GENERATION TECHNOLOGY

Information included in this handout may change at anytime without notice and should not be considered as a binding contract between Idaho State University and students.

Program Options & Length:

Diesel Technology, Advanced Technical Certificate	3 Semesters
On-Site Power Generation Technology, Advanced Technical Certificate	4 Semesters
Diesel Technology, Associate of Applied Science degree	4 Semesters
On-Site Power Generation Technology, Associate of Applied Science degree	5 Semesters

Entry dates for this program:
August and January

Approximate cost for books, tools, & supplies:
\$2,694-\$3,483
(See below for registration fees.)

For more information, Contact:
Idaho State University
College of Technology
Student Services Office
Campus Box 8380
Pocatello, ID 83209-8380
208-282-2622
e-mail: ctech@isu.edu
www.isu.edu/ctech/

Job Description: The Diesel / On-Site Power Generation Technology program offers the student the opportunity to learn the proper procedures for servicing, maintaining and repairing all parts of the diesel equipment utilized in farming, construction or trucking industries. The student will receive a thorough training in the use of the necessary specialized tools and equipment. The program is designed to provide the graduates with the skill and training required prior to entering the diesel mechanics field.

Aptitudes and Interests: Students entering the On-Site Power Generation Technology program should have an aptitude for mathematics, reading skills, good reasoning and logical thinking. An interest in machinery, tools of the trade and their use, liking to work with both the mind and the hands are very important.

Educational Requirements: Completion of high school or GED is required.

Helpful High School Courses: Communication Skills Math Mechanical Reading Comprehension

Related Occupations:

Air Conditioning	Construction Diesel Technician	Fuel Injection
Diesel Engine	Electric-12 and 24 Volt	Hydraulic
Farm Diesel Technician	Power Shift Transmission	Truck Diesel Technician

TUITION AND FEES

Fees apply to the current Idaho State University fee schedule located at <http://www.isu.edu/finserv/costinfo.shtml>.

Fees include **mandatory** student health insurance, any student with existing health insurance coverage may be exempt and waivers are available at <http://www.isu.edu/stuhlth/insurance/pp.html>.

ADMISSION STEPS

- Complete and return an Application for Admission along with a check or money order for \$40 (non-refundable), payable to Idaho State University. You may also apply online via the Idaho State University home page: www.isu.edu . Click on Prospective Students.
- Submit official college transcripts, if applicable, from each accredited institution of higher education that you have attended.
- Submit an official copy of your high school transcript or GED scores (Not required if you have completed and submitted proof of 14 or more academic credits from an accredited institution of higher education.)
- Meet with a College of Technology counselor, if desired, to obtain more in-depth information. To make an appointment, call (208)282-2622.
- Either:
 1. Complete the COMPASS Placement test. This test enables us to place you in the appropriate classes to enhance your success in college.
 2. Submit ACT/SAT scores, valid for seven (7) years from the date of testing. ACT scores are not required for acceptance to the College of Technology, however they are required to qualify for some scholarships
- Apply for financial aid if needed. Questions, call (208) 282-2756.
- Former College of Technology students who have been out of school one semester or more must complete the necessary forms in the Student Services office before returning to the program. Re-entering student must meet the requirements as outlined in the catalog effective at the date of their re-enrollment.

Idaho State University subscribes to the principles and laws of the State of Idaho and the federal government, including applicable executive orders pertaining to civil rights. All rights, privileges, and activities of the University are made available without regard to race, creed, color, sex, age, disability, national origin or veteran status. The University is an Equal Opportunity and Affirmative Action employer. Evidence of practices that are not consistent with such a policy should be reported to: Leonard E. "Buddy" Frazier, Affirmative Action Director; Museum Building, Room 422 Box 8315.E-mail frazleon@isu.edu, (208) 282-3964.

Idaho State University is committed to equal opportunity in education for all students, including those with documented disabilities. If you have a diagnosed disability or if you believe that you have a disability that might require reasonable accommodations, please contact: Dennis J. Toney, ADA Disabilities and Resource Center Director; Gravely Hall, Room 123 Box 8121.E-mail tonedenn@isu.edu, (208)282-3599.

Licensure, certification, and/or employment applications related to some degree programs require students to disclose any history of criminal prosecution which may include the student's driving record. Students who have a criminal history are strongly encouraged to contact the licensing agency or meet with the coordinator of the program they are interested in, prior to beginning classes, to discuss potential impediments to licensure, certification, or employment.

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COURSE SEQUENCE

1st and 2nd Sessions

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 101	Introduction to Diesel Technology	2
x	x	DESL 107	Fundamentals of Electricity	6

3rd Session

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 115	Diesel Hydraulics	2
x	x	DESL 116	Power Shift Transmissions	3
x	x	DESL 117	Heavy Duty Brake Systems	2
x		TGE 151	Technical Writing I	2

4th Session

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 109	Cab Air Conditioning	1
x	x	DESL 113	Diesel Fuel Systems	6
x	x	COMM 101	Principles of Speech	3

5th Session

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 125	Heavy Duty Power Trains	7
x		TGE 152	Technical Writing II	2

6th Session

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 182	Gasoline Engines	2
x	x	DESL 184	Diesel Engines	5
x		TGE 158	Employment Strategies	2

7th Session

ATC	AAS	Course #	Course Title	Credits
either	either	DESL 231	Diesel Livework I	8
or	or	{ DESL 251 }	Diesel Internship	{8}

8th & 9th Sessions - On-Site Power Generation Technology Only

ATC	AAS	Course #	Course Title	Credits
x	x	DESL 241	On-Site Power Generation I	8
x	x	DESL 243	On-Site Power Generation II	8

Students will also need to schedule the following classes if they are seeking the Associate of Applied Science degree: ENGL 101; three (3) credits from Goal 3 (mathematics); three (3) credits from Goals 6, 7, 9, 10A, 11, or 12; and four (4) additional credits from any courses meeting the requirements of Goals 2 through 12.

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BOOK AND TOOL LIST

Textbooks may be purchased at the University Bookstore located at the Pond Student Union - Building #14. Textbooks may also be purchased or reserved on-line through www.efollett.com or the bookstore's website at www.isu.edu/bookstor. Payments may be made with cash, check, VISA, MasterCard, American Express, or Discover. A shipping charge will be added for mail orders. See the bookstore's website for more information on purchasing or reserving books or for refund policy information. **Save Your Receipts!**

Approximate total book and tool costs for this program's options are listed below. Additional book costs will vary depending on the courses taken to fulfill general education requirements for the AAS degree. For a breakdown of books by individual class requirements, you must check your course curriculum.

NOTE: PRICES ARE SUBJECT TO CHANGE AT ANYTIME WITHOUT PRIOR NOTIFICATION

Listed below are some tool distributor names and telephone numbers:

TOOL LIQUIDATOR	Eric Huff 1800 Garrett Way Pocatello ID 83201	208-232-8302
SNAP-ON TOOLS	Bill Peterson, Industrial Representative	801-972-2060 Home 208-376-3562
SEARS TOOLS	4145 Yellowstone Avenue Chubbuck ID 83202	800-776-8666 Ext 782 208-238-3409
KIRKHAM AUTO	715 N Main Pocatello, ID 83204	208- 233-2721
CORNWELL DEALER	Dondi Blacker, Authorized Dealer www.cornwelltools.com	208-852-6006
MATCO TOOLS	Phil Barber, Distributor 1100 W Quinn Apt 8 Pocatello, ID 83202	Home: 208-221-0990 Office: 208-238-0243 www.matco.com

**The following tools are necessary for all stages of the Program.
They must be purchased before the first day of class
These tools should be available in all courses at all times.**

FIRST SESSION TOOLS

QUANTITY	DESCRIPTION
1 ea	1/4" drive - socket, 6 point hex, regular length sizes: 3/16" 7/32" 1/4" 9/32" 5/16" 11/32" 3/8" 7/16" 1/2"
1	1/4" drive - Ratchet, reversible
1	1/4" drive - Extension, 3 1/2"
1	1/4" drive - socket set, 5, 6, 7, 8, 9, 10, 11, 12, 13 mm
1 ea	3/8" drive - socket, 6 point hex regular length sizes: 5/16" 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"
1	3/8" drive - 7" Ratchet, reversible
1 ea	3/8" drive - Extension, 1 3/4", 3 1/2"
1 ea	3/8" drive - socket, 6 point, deep length sizes: 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"
1 ea	3/8" drive - socket, 12 point, flex sizes: 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4"
1 ea	3/8" drive - socket, 6 point, regular length hex sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 mm
1 ea	Spark Plug Socket, 6 point sizes: 5/8" and 13/16"
1 ea	1/2" drive - socket, 12 point, Double Hex, Regular Length sizes: 7/16" 1/2" 9/16" 5/8" 11/16" 3/4" 13/16" 7/8" 15/16" 1"
1 ea	1/2" drive - socket, 12 point sizes: 1 1/16", 1 1/8", 1 1/4"
1	1/2" drive - Adapter, 1/2" F, 3/8" M
1	1/2" drive - Ratchet, reversible 10 1/4"
1 ea	1/2" drive - Extension, 2 1/2", 5", and 10" long
1	1/2" drive - Flex Handle, 18 1/2" long
1 ea	1/2" drive - socket, 6 point, regular length sizes: 13, 14, 15, 16, 17, 18, 19, 21 mm
1	Battery post cleaner
1	Brush, wire
1	Chest, Six drawer, removable top, 26"W x 12"D x 14 1/2"H 1 full size removable tote tray, 3-4" width drawers 2" D 2 full-width drawers 2" D, 1 full-width drawer 4" D
1	Chisel, Cold, 5/16" cut, 1/4" hex, 5 1/8" long
1	Chisel, Cold, 3/4" cut, 19/32" hex, 7" long
1	Chisel, Cold, 5/8" cut, 23/32" hex, 8" long
2	Drill bit, 5/16"
1	File, mil bastard with handle, 12"
1	File, round bastard with handle, 14"

1	File, tri-corner with handle, 10"
1	Flashlight, heavy duty 2-D cell
1	Gauge, Feeler 26 pieces: .0015 - .040
1	Hacksaw
1	Hammer, ball pein, 1 LB, polished only, 14 1/2" long
1	Hammer, ball pein, 40 oz
1	Hammer, computain, 3 LB
1	Hook, utility packing (Mac Tool #sw10 or 50)
1	Magnet, Telescoping, 16 3/4" long
1	Multimeter, digital (Check with Instructor before purchasing.)
1	Pliers, ignition 4 9/16"
1	Pliers, lock ring, 8 1/4"
1	Pliers, brake spring, 12"
1	Pliers, diagonal cutting, 8"
1 ea	Pliers, external snap ring, 7" and 9", hole type
1 ea	Pliers, internal snap ring, 7" and 9", hole type
1	Pliers, lever wrench (Vise Grips), 8"
1	Pliers, needle nose, side cutting, 6"
1	Pliers, power track, 10"
1	Pliers, slip joint, 8"
1	Pliers, snap ring, 9", flat end type
1	Pliers, Electrical stripper/cutter/crimper, 8"
1	Punch, Pin, 1/8" dia, 5/32", 3/16", 1/4" end diameter
1	Punch Set, tapered start, 5/8" x 12" L, 3/4" x 18" L
1	Punch, 5/8" Center
1	Punch, Drift, 1/2" straight, 12" L
1	Roll head bar 19/32" hex, 16" long, Snap-On #1650, Mac #LF16, or equivalent
1	Ruler, flex steel, 1/2" x 6", #4 graduations
1	Scraper, carbon 12", HD plastic handle
1 set	Screw extractors (Easy-outs)
1 ea	Screwdriver, Phillips #1, 6 1/2" and #2, 8 1/4"
1	Screwdriver, standard tip, round shank, 13"
1 ea	Screwdriver, standard tip, square shank, 6 1/2" and 10 1/2"

1	Solder gun
1	Square, combination 12
1	Tape measure, 1/2" x 12'
1	Test light
1	Wrench, flare, 3/8" - 7/16"
1	Wrench, flare, 1/2" - 9/16"
1	Wrench, flare, 5/8" - 11/16"
1	Wrench, flare, 3/4" - 13/16"
1 ea	Wrench, combination sizes: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1, 1 1/16, 1 1/8, 1 1/4 inches
1	Wrench set, 9 piece hex, metric, 2 mm through 12 mm
1	Wrench set, 11 piece hex, 5/64 through 3/8
1	Wrench, 14", heavy duty, pipe
1	Wrench, 25# - 250# Torque, torque left and right
1 ea	Wrench, combination sizes: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 mm

APPROXIMATE TOTAL FOR TOOL KIT	
SEARS	\$1,850.00
MATCO or MAC TOOLS	\$2,400.00
SNAP-ON	\$2,600.00

COVERALL PROGRAM (REQUIRED)

1. The coverall program is on a rental basis.
2. The laundry will supply each student with 3 pairs of coveralls.
3. There is a \$14.00 rental and laundry fee for the first session and a \$14.00 fee for each of the remaining seven sessions in which a student is enrolled in the Diesel program.
4. The Rental Fee is due at registration/fee payment time.

APPROXIMATE TOTAL COVERALLS	\$112.00
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FIRST & SECOND SESSIONS**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE	
DESL 101 INTRODUCTION TO MECHANICS		
HEAVY DUTY TRUCK SYSTEMS	1401870645	156.00
DESL 107 FUNDAMENTALS OF ELECTRICITY		
MEDIUM/HEAVY DUTY TRUCK ELECT (set: class manual/shop manual)	0827370067	140.00
Class fee (DESL 107)		13.25
APPROXIMATE TOTAL BOOKS & FEES- FIRST & SECOND SESSION		\$309.25

THIRD SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE	
DESL 115 DIESEL HYDRALAULICS		
HYDRAULICS: FOS	0866913355	46.00
Class fee		13.25
DESL 116 POWER SHIFT TRANSMISSIONS		
POWER TRAINS: FOS	0866913256	61.00
TGE 151 TECHNICAL WRITING I - Required for Certificate only		
COURSE PACK FOR TGE 151		5.00
POCKET GUIDE TO TECHNICAL COMMUNICATIONS	0131721050	34.00
APPROXIMATE TOTAL BOOKS & FEES-THIRD SESSION		\$120.25 - 159.25

FOURTH SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE	
DESL 113 DIESEL FUEL SYSTEMS		
DIESEL ENGINE & FUEL SYSTEM REPAIR	0130929815	136.00
Class fee		13.25
APPROXIMATE TOTAL BOOKS & FEES-FOURTH SESSION		\$149.25

FIFTH SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE
DESL 125 HEAVY DUTY POWER TRAINS (Previously purchased for DESL 116)	
TGE 152 TECHNICAL WRITING II (Previously purchased for TGE 151)	
APPROXIMATE TOTAL BOOKS & FEES-FIFTH SESSION	.00

SIXTH SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE
DESL 182 GASOLINE ENGINES	
ENGINES: FOS	0866912846 70.00
Class fee	5.75
DESL 184 DIESEL ENGINES	
Class fee	5.75
TGE 158 EMPLOYMENT STRATEGIES (Refer to Course Section Number)	
APPROXIMATE TOTAL FOR BOOKS & FEES-SIXTH SESSION	\$81.50

SEVENTH SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE
DESL 231 LIVE WORK I	
Class Fee	\$13.25
APPROXIMATE TOTAL FOR BOOKS & FEES-SEVENTH SESSION	\$13.25

EIGHTH & NINTH SESSION**I. BOOKS LISTED BY COURSE**

DESCRIPTION	APPROXIMATE PRICE
DESL 241 ON-SITE POWER GENERATION I	
Class fee	5.75
DESL 243 ON-SITE POWER GENERATION II	
Class fee	5.75
APPROXIMATE TOTAL BOOKS & FEES-EIGHTH & NINTH SESSION	\$11.50

SUPPLIES & OTHER EXPENSES

QUANTITY	DESCRIPTION	APPROXIMATE PRICE
1 ea	Binder, 3-ring, Loose-leaf	3.00
1 ea	Canvas, white 4' x 4'	6.00
1 pkg	Dividers, Loose-leaf	1.00
1 pr	Glasses, Safety or shield	6.00
1 pkg	Paper, Loose-leaf	2.00
6 ea	Pencils, #3	5.00
1 pkg	Pencils, colored	2.00
2 ea	Pens, ball point	2.00
Graduation Application fee for first Certificate/Degree		20.00
Optional fee for any additional Certificate/Degree		(10.00)
APPROXIMATE TOTAL SUPPLIES & OTHER EXPENSES		\$47.00

APPROXIMATE TOTAL BOOKS, SUPPLIES & TOOLS - Advanced Technical Cert.	\$2,733.00 - \$3,483.00
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APPROXIMATE TOTAL BOOKS, SUPPLIES & TOOLS - AAS Degree	\$2,694.00 - \$3,444.00
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<p>ANTICIPATE ADDITIONAL EXPENSES ASSOCIATED WITH THIS PROGRAM: TEXTBOOKS ASSOCIATED WITH ACADEMIC COURSES, TRANSPORTATION, PARKING, CHILD CARE, HOUSING. YOU MUST CHECK YOUR CLASS SCHEDULE TO DETERMINE TEXTBOOKS REQUIRED BY INSTRUCTOR.</p>
