

Odessa College
Technical Studies Division
Automotive Technology

Course Syllabus

COURSE NUMBER: AUMT 1419
COURSE TITLE: Automotive Engine Repair
CREDIT HOURS: 4 **LECTURE HOURS:** 2 **LAB HOURS:** 6
PREREQUISITE: DEMR 1405, consent of department chair or instructor, Co-requisite: AUMT 2417

CATALOG DESCRIPTION:

Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification, and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Study of engine designs and special tools needed to repair and maintain engines to manufactures specifications. Student will use service manual to organize technical information, diagnose, and read precision clearances. Student will learn to read and use precision measurement instruments. Reading of technical manuals required. Lab fee required. (SCANS 1, 2, 3, 4, 5, 7, 8, 9, 10, 11)
Prerequisite: Consent of department chair or instructor. Co-requisite: AUMT 2417.

COURSE LEARNING OUTCOMES:

Utilize appropriate safety procedures; demonstrate engine diagnostic procedures; and diagnose and repair cylinder head, valve train, engine block, lubrication, and cooling systems.

COMPETENCIES:

After completing this course, the student should be able to demonstrate automotive competency in:

I. AUTOMOTIVE ENGINES

TEXTBOOK

Shop Manual: Automotive Engine Repair & Rebuilding, Elisabeth H. Dorries, 3rd Edition, Thomson Delmar Learning, 2006

SUPPLIES:

Students will need course textbook, job sheets, paper, notebook, pen and pencils.

COURSE GRADE EVALUATION:

25% Professionalism (*A grade will be assessed using the following guide lines.*)
Punctuality
Desire to learn
Appropriate appearance
Quality workmanship
Ability to work with others
Safe working habits (*Students will be graded in all areas of shop safety.*)
Positive attitude
Work ethics
Integrity
Attendance
25% Research Paper and/or Final Exam
25% Lab Participation
25% Quizzes and/or Daily Task (*Quizzes maybe verbal/written*)

Also see instructor information sheet:

ATTENDANCE POLICY:

Students are expected to attend all classes in which they are enrolled. The college requires instructors to keep accurate student attendance records; therefore, any student who must be absent from class for any reason should immediately consult with his/her instructor regarding the absence. **YOUR** attendance is the greatest predictor of your success. **Student attendance at EVERY class is expected.** You should expect that each absence will adversely affect your course grade. (*For more information, refer to the catalog section; Academic and Class Information, currently on page 42 in the 2009-2011 catalog.*)

ACADEMIC ETHICS:

You are expected to participate and contribute as a group in the labs and classroom; test will be taken without notes or other outside-assistance. If unethical behavior is detected, all parties involved will be denied credit for that project or exam. The questioned material and report of the ethics violation will be submitted to the department chair for further action if deemed necessary.

STUDENT ASSISTANCE:

- Admissions: 432-335-6432
- Auto/Diesel Department Chair: 432-335-6633
- Book Store: 432-335-6655
- Cafeteria: 432-335-6435
- Career Services: 432-335-6433
- Cashier's: 432-335-6419
- Counseling: (Help center) 432-335-6433
- Rosie Aguilar 432-335-6741
- Dollars for Scholars 432-335-6648
- .edu: (Student Service Center) 432-335-6894
- Financial Services: 432-335-6429
- Housing/Judicial Affairs: 432-335-6300
- Learning Resources Center: 432-335-6640
- Office of Disability Services 432-335-6861

What a student with a documented disability must do to obtain services

A student with a documented disability planning to attend classes and needing to request accommodations must present the appropriate documentation to the Office of Disability Services, located in the Student Union Building/ Help Center. It is recommended that the student meet with the Special Populations advisor three weeks prior to the beginning of the semester to make the necessary arrangements for the needed accommodations. Please call Becky at 335-6861 or send an email to

brivera@odessa.edu for additional information or to make an appointment.

- Phi Theta Kappa 432-335-6533
- Registrar: 432-335-6404
- Sports Center 432-335-6476
- Student Learning Center:
 - Peer tutoring available
 - PLATO: Computer tutoring available
 - (LRC 300) 432-335-6673
- Student Support Services: 432-335-6476
- Technical Studies Dean: 432-335-6686
- Testing Center: 432-335-6620
- Vice President Instruction: 432-335-6413
- Vice President for Student Services:
 - 432-335-6684
- Wi-Fi Java, Cyber Café: 432-335-6891
- Wrangler Express Center 432-335-6849

FACULTY:

James McCutcheon, chair;	Office Dm102	432-335-6633	jmccutcheon@odessa.edu
Jerry Griffith	Office Dm101	432-335-6632	jgriffith@odessa.edu
Perry Griffith	Office Dm105A	432-335-6603	pgriffith@odessa.edu

LAB REQUIREMENTS:

General Shop Practices and Procedures

- **Safety requirements will be strictly enforced: comply with personal and environmental safety practices associated with clothing, eye protection, hand tools, power equipment, proper ventilation, and the handling, storage, and disposal of chemicals in accordance with local, state, and federal environmental regulations.**
- Proper **Personal Protection Equipment (PPE)** will be used in all required areas.
- **Safety Glasses** must be worn **at all times** in the **lab/shop area**. No exceptions!
- **Adhere to all Safety signs** posted on equipment, fire extinguishers, tool groups, vehicle lifts, support stands, grinders, drill presses, or any other equipment or areas marked with Safety signage.
- Do not restrict the passage of any marked walkway.
- **Safety is paramount** and you are responsible for your work area and your safe work habits! **Therefore, do not leave fluid spills on floor and keep your area free of clutter!**
- Equipment use is limited to those knowledgeable enough to operate the equipment safely; otherwise the equipment is **OFF LIMITS! (Consult your instructor).**
- Tools and equipment **will not be loaned** or taken from the Odessa College premises.
- Students **MUST** sign out for any specialty tool needed and will only be issued by an instructor or designated person. The student will be **responsible for safety and care of those tools, when finished or at the end of each lab period**, return all tools to the checkout person so they can sign the tool back in.
- NATEF job sheets will be filled out for each lab assignment. When finished, give completed job sheets to the instructor and those will be recorded on your progress report.
- All vehicles are to be treated as customer vehicles. As a student **YOU ARE TO RESPECT THIS**, do not sit in, lean on, or handle any vehicle that has not been specifically assigned to you by your instructor.
- Any time a vehicle hood is open, fender covers must be in place on the fenders at all times.
- Students must get approval from the instructor **before** bringing vehicles in the shop. **Only certain vehicles qualify for NATEF required tasks.**
- Visitors are not allowed in the lab/shop area, however they may be escorted through the lab/shop area by approved personal.

Statement of Special Accommodations: Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability Services at 335-6861 to request assistance and accommodations.