

CASPER COLLEGE COURSE SYLLABUS  
**AUTO 1510 Engine System Fundamentals**

**Semester/Year:** Fall 2015

**Lecture Hours:** 2

**Lab Hours:** 8

**Credit Hours:** 6

**Class Time:**

**Days:** MTWTh

**Room:** CS 113 & 111

8:00 a.m-12:00 p.m.

(8/24/2015-10/15/2015)

**Instructor's Name:** Chris Raymond

**Instructor's Office:** CS 118    **Office Phone:** 307-268-2386

**Email:**  
christopher.raymond@caspercollege.edu

**Office Hours:** As posted on office door

**Course Description:** This course will cover engine design and operation, engine sub-systems including ignition, fuel, cooling, oiling, intake and exhaust, and timing systems. Emphasis is placed on the proper usage of diagnostic tools and equipment, base engine diagnosis, engine performance, and tune-up procedures.

**Statement of Prerequisites:** None

**Goal:** To provide entry-level technical training that meets the needs of the automotive industry.

**Outcomes:**

1. Demonstrate effective oral and written communication
2. Solve problems using critical thinking and creativity
3. Use appropriate technology and information to conduct research
4. Use quantitative analytical skills to evaluate and process numerical data

**Course Objectives:**

1. Provide students with safe working habits so as to not injure themselves, others, or personal property
2. Instill a sense of punctuality, time management and work ethic
3. Communicate effectively both verbally and in writing
4. Apply appropriate Automotive workplace and critical thinking skills
5. Identify and interpret engine concerns and determine necessary action
6. Perform vehicle service and maintenance per OEM guidelines

**Methodology:** A combination of lecture and laboratory classes

**Evaluation Criteria:** Students are evaluated by the following methods: attendance, punctuality, classroom participation, written & practical tests, chapter review questions, and daily lab performance. Late homework will receive a maximum of one-half credit depending on the reason and hand-in date.

A makeup exam may be given at the instructors' discretion with a pre-excused absence. **Lab work and practical exams may NOT be made up!**

**Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.**

<b>Grading Scale:</b>	93%-100%	A
	83%-92%	B
	70%-82%	C
	60%-69%	D
	00%-59%	F

**Required Text, Readings, and Materials:** Automotive Technology, A Systems Approach (6<sup>th</sup> Edition), Jack Erjavec  
(Must include MindTap)

**CLASS POLICIES:**

- Last date to change to Audit status: See current Casper College catalog.
- Last date to withdraw with a 'W' grade: See current Casper College catalog.
- Refer to the Automotive Technology Statement of Policy.

**SAFETY:** Personal and equipment safety standards will be strictly enforced. *It is the individual's responsibility to develop and use a safe work attitude.* Disregard for the safety of yourself and/or others will result in dismissal from the program. Students must provide their own leather, work shoes (safety-toes are recommended) and ANSI approved safety glasses.

**Student Rights and Responsibilities:** Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

**Chain of Command:** If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

**Academic Dishonesty:** (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

**Official Means of Communication:** Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

**ADA Accommodations Policy:** If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, [bheuer@caspercollege.edu](mailto:bheuer@caspercollege.edu). The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request

and use appropriate accommodations.

**Calendar or schedule indicating course content:**

Automotive Careers and Work Place Skills  
Shop Safety  
Tools and Equipment  
Preventative Maintenance and Basic Service  
Basic Theories

Engine Design and Diagnosis  
Engine Disassembly & Cleaning  
Lubrication and Cooling systems  
Fuels and other energy sources