# CASPER COLLEGE COURSE SYLLABUS DESL 1540, Section 01 - Heavy Duty Electrical Systems

Semester/Year: Fall 2015

Lecture Hours: 2 Lab Hours: 2 Credit Hours: 3

**Instructor's Name:** Mr. Blesi

#### **Instructor's contact Information:**

Mr. Blesi

Office Phone: 268-2459
Office Number: GW-116F

**Email:** jblesi@caspercollege.edu **Office hours:** MW 9:00-10:00 a.m.

M 12:00 -1:00 p.m. (CS) W 10:00 - 11:00 a.m. Th 12:00 - 1:00 a.m. (CS)

#### **Course Description:**

Introductory course to electrical systems used in heavy duty diesel engines. Course will cover fundamental electrical quantities, components and basic circuits. Additional content will cover heavy diesel engine electrical systems.

#### **Statement of Prerequisites:** None.

#### Goal:

To build a foundation of knowledge for the heavy duty diesel technician with the commonly encountered electrical systems in heavy duty diesel engines and natural gas engines.

#### **Outcomes:**

1. Use quantitative analytical skills to evaluate and process numerical data.

#### **Course Objectives:**

- 1. Relating voltage, current and resistance.
- 2. Relating current and voltage in series and parallel circuits.
- 3. Introduction to components typically encountered in diesel engines
- 4. Testing of the starting and charging systems.
- 5. Use of digital multimeter to measure voltage and resistance
- 6. Connection of batteries in series/parallel
- 7. Identify and exercise appropriate use of safety equipment.

#### **Methodology:**

The text will be used as a reference for students. Additional information will be introduced by lecture, demonstrations, worksheets, software, and hands on experience.

#### **Evaluation Criteria:**

Grade is based on worksheets, quizzes, participation and final exam. A makeup may be given depending on the reason, the status of the student's quizzes to date and attendance. Makeups will require prior notice or a written excuse for not being present. No late materials will be accepted after the final exam.

Percent of total grade for required work is shown below.

Worksheets/quizzes	60%
Participation	20%
Final	20%

Final grade for course is on the following scale:

90%-100%	Α
80%-89%	В
70%-79%	C
60%-69%	D
00%-59%	F

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

### Required Text, Readings, and Materials:

*Heavy-Duty Truck Systems*. Bennett and Norman. Delmar CENGAGE Learning. 6th edition, 2015.

Note taking material, paper and pencil.

Inexpensive calculator, I recommend the TI30XA.

PPE as described by the Diesel department policy.

## Class Policies: Last Date to Change to Audit Status or Withdraw with a W Grade:

November 12, 2015

All Diesel Program policies will be enforced.

All laboratories must be done and handed in to pass the class.

No late materials will be accepted after the final exam.

Makeup's will require prior notice or a written excuse for not being present. Quizzes may only be made up prior to the start of the next class. It is the student's responsibility to arrange a time with the instructor(s) to makeup a quiz.

Students are expected to read the material listed on schedule prior to coming to class.

**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 class.

**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, <a href="mailto:bheuer@caspercollege.edu">bheuer@caspercollege.edu</a>. 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.

LECTURE SCHEDULE		DESI	L-1540	FALL 2015 – BLESI/ROBERTS	
Week	Chapter	Reading (page	es)	Sections	
1				None	
2	5	127-135		5.1, 5.2, 5.3	
3	5	138-143		5.6, 5.7, 5.8 (	stop at series circuits)
4	5	143-148		Finish 5.8	
5	7	193-205		7.1, 7.2, 7.3	
6	7	205-225		7.4, 7.5, 7.6,	7.7, 7.8, 7.9, summary
7	6	156-163		6.1, 6.2, 6.3	
8	5 5	135-138 148-154		5.4, 5.5 5.9, 5.10, sum	nmary
9	8	228-235		8.1, 8.2	
10	8	235-247		8.3, 8.4, sumr	mary
11	9	249-260		9.1, 9.2	
12	9	260-268		9.3, 9.4, sumr	mary
13	10	270-274 278-289		10.1 (stop at 1 10.2 (soldering	•
14				Happy Thank	sgiving
15	10	290- 295		10.3, summar	у
16	11 11	298-313 329-335		11.1, 11.2 11.8, 11.9	
17				Final as scheo	luled

Rev: 8/15

Syllabus subject to change without Notice!