



**Note to Instructor: Replace the placeholder text beneath the headings with the appropriate information for your course. Please note that all sections, with the exception of "Other Course Information," are required elements.**

### Basic Course Information

Semester:	<b>BLDC 165</b>	Instructor Name:	<b>Araiza, Carlos</b>
Course Title & #:	<b>AUT 165 Diesel Preventive Maintenance &amp; Inspection</b>	Email:	<b>carlos.araiza@imperial.edu</b>
CRN #:	<b>10548</b>	Webpage (optional):	<b>www.imperial.edu</b>
Classroom:	<b>1201</b>	Office #:	<b>3120</b>
Class Dates:	<b>Aug 16 to Dec 11</b>	Office Hours:	<b>M 11am- 12pm T 10:05am-11:05am W 2pm-3pm Th 3:30pm-4:30pm</b>
Class Days:	<b>Tuesday &amp; Thursday</b>	Office Phone #:	<b>760-355-6194</b>
Class Times:	<b>T 6:00pm-9:10pm Th 6:00pm -9:10</b>	Emergency Contact:	<b>760-355-6217</b>
Units:	<b>4</b>	Class Format:	<b>Hybrid Online lecture Face to Face Lab</b>

### Course Description

[Paste in the course description from the Course Outline of Record (COR), located at <https://imperial.curricunet.com/Search>]

The Diesel Preventive Maintenance and Inspection course trains students in: theory, design, operation, troubleshooting and maintenance of heavy duty truck and farm equipment. Upon successful completion of this course, the students are prepared to take the Automotive Service Excellence (ASE) Certification Exam in Preventive Maintenance T8. (Nontransferable, non degree applicable) (Nontransferable, AA/AS degree only)

### Course Prerequisite(s) and/or Corequisite(s)

[Paste in the course prerequisite(s) and/or corequisite(s) from the COR, located at <https://imperial.curricunet.com/Search>]

### Auto 110

### Student Learning Outcomes

[Paste in the course student learning outcomes from the COR, located at <https://imperial.curricunet.com/Search>]

1. Explain how to set up a diesel preventive maintenance inspection program.(ILO1, ILO2, ILO3)

2. Explain how to set up a daily walk around inspection for Diesel units. (ILO1, ILO2, ILO3)
3. Describe the proper steps for preparing the Diesel equipment for short and long term stationary storage. (ILO1, ILO2, ILO3)
4. Describe the use of troubleshooting charts and service information to pinpoint the source of system problems. (ILO1, ILO2, ILO3)

### Course Objectives

[Paste in the course objectives from the COR, located at <https://imperial.curricunet.com/Search>]

1. A. Inspect and repair engine systems
2. B. Inspect and repair cab and hood instruments
3. C. Check and repair electrical and electronic systems
4. D. Inspect and repair frame and chassis components
5. E. Check machine operation and road test

### Textbooks & Other Resources or Links

[Describe which textbooks and/or other resources are required for the course. Be sure to include ISBN.]

**Lectures, textbook, workbook, assignments .worksheets, video .internet information, live demonstration quizzes, mid-term and final test and out –class assignments.**

**TEXTBOOK: : Fundamentals, Service, Repair** 7<sup>th</sup> edition by Andrew Norman  
And John “Drew” Corinchock ISBN: 13: 978—1590707708 **OR Diesel Technology:**  
**Fundamentals, Service, Repair** 8<sup>th</sup> edition by John Drew Corinchock and Andrew Norman ISBN:  
13: 978-1619608320

**Personal Safety Equipment:** ANSI Z. 87 rated safety glasses, appropriate footwear for the shop, appropriate shirt and pants for the shop

### Course Requirements and Instructional Methods

[Describe course activities, assignments, tests, homework, etc.]

**Methods of instruction:** During this class the methods of instruction used may include but are not limited to the following:

**Demonstrations, Discussion, Group Activities, Individual Assistance/ Guidance, Shop/Lab Activities, Lectures, Simulation/Case Studies, Audio Visual Presentations, Computer Assisted Instruction, Out of Class Assignment .**



**Note on Out of Class Assignments: The Department of Education policy states that one (1) credit hours is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.**

### **Course Grading Based on Course Objectives**

*[Provide detailed information related to grading practices and grading scale, including values and totals. Consider adding final grade calculation, rubrics, late assignment policy, and other grading practices.]*

**Grading Information and Assignments Grade will be based on a total of 100 point for lab assignment, quizzes, midterm and final tests**

<b>1 Safety Exam=</b>	<b>3 Points</b>
<b>7 Quizzes with a total of 5 points each =</b>	<b>35points</b>
<b>7 Homework Assignments with a total of 2 points each =</b>	<b>14points</b>
<b>Final Test there are 4 processes worth 6 points each with a total of =</b>	<b>24 points</b>
<b>Total Points Possible = 100</b>	

**25% Completed Assignments**

**25% Quizzes**

**25% Mid- Term**

**25% Final Exam**

**A= 90%-100% Excellent**

**B= 80%-89% Good**

**C= 70%-79% Satisfactory**

**D= 60%- 69% Pass, less than satisfactory**

**F= 59%& Below Failing**

For successful completion of this course students will need to be present for and participate in all lectures or discussions and complete all course assignments in a timely manner in addition to completing homework, reading, quizzes, and evaluations to be assigned in the semester. The final grade will be calculated as an average of the assignments as follows:

## Course Policies

*[Describe other policies such as attendance, academic honesty, netiquette, expected classroom behavior, etc.]*

### Make sure to:

1. Bring your textbook every section of lecture
2. Bring a notebook and pencils
3. Be on time for class
4. Participate during lecture/lab activities
5. No late assignments

### Basic Rules and shop safety:

1. No music allowed in the auto shop
  2. No parking in front of the gate
  3. No work should be done without instructor's permission
  4. No parking inside the shop during lecture time.
  5. No long brakes (should be 10 minutes per class hour)
  6. Each student should clean the work area
  7. The students can't leave early without instructor's permission
  8. No cell phones during class session
  9. No helpers or visitors during lab activities
  10. Safety glasses are required along with safety work clothing, no sandals, loose clothing, or jewelry allowed.
- **Electronic Devices:** Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
  - **Food and Drink** are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
  - **Disruptive Students:** Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).

- **Children in the classroom:** Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

### Other Course Information

*[Optionally, include other necessary information.]*

### IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

### Anticipated Class Schedule/Calendar

*[Provide a tentative overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format as in the example below may be used for this purpose.]*

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1	<b>Auto Shop Safety /Tools Course Introduction</b>	
Week 2	<b>History and basic engine operation</b>	
Week 3	<b>Diesel Engine Components</b>	
Week 4	<b>and Cooling Systems</b>	
Week 5	<b>Engine Lubrication</b>	
Week 6	<b>Electrical System: Battery, starter, alternator</b>	
Week 7	<b>Midterm Exam</b>	
Week 8	<b>Spring Break</b>	
Week 9	<b>Fuel Injection Systems /Diesel Fuel Pumps</b>	
Week 10	<b>Diesel Injectors</b>	
Week 11	<b>Intake/Exhaust systems, turbochargers and DPF</b>	
Week 12	<b>Turbochargers and blowers</b>	
Week 13	<b>Diesel Fuel Filters and Conditioners</b>	



<b>Week 14</b>	<b>Preventive Maintenance</b>	
<b>Week 15</b>	<b>Chapter 19 Governors and Acceleration Control</b>	
<b>Week 16</b>	<b>Final Exams</b>	<b>Final Exam</b>

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**\*\*\*Subject to change without prior notice\*\*\***