

# Syllabus for AU3.315

## Lab Scope Diagnostics

3 credit hours Spring Quarter 2010

### **This is a Hybrid Class:**

A hybrid car runs on two power sources; a gasoline engine, and an electric motor.

A hybrid class runs on two learning sources; out-of-class study and in-class activities.

*A Hybrid course works best when you constantly use both learning sources.*

The first learning source requires you to spend about 5 hours per week outside of class researching and participating in on-line tasks and discussions about lab scope diagnostics.

You can use the LBCC Automotive Shop most days from 12:00 – 1:00 for out-of-class study. (Please ensure Phil Krolick is in the shop when you use this option.)

The second learning source requires discussing and experimenting with the lab scope in class every Friday morning from 8:00 – 9:50 in IA-116.

With no gasoline, a hybrid car will soon stop running. If there is no out-of-class study a hybrid class student will soon stop learning.

### **Course Outcomes:**

If you are successful in this class you will be able to:

#1 Diagnose electronically controlled vehicle systems using a Lab Scope

#2 Use online learning to advance your knowledge of automotive technology.

### **Course Description:**

This class introduces lab scope diagnostics and helps you develop skills for future learning about automotive technology once you have graduated from LBCC. Most of the learning tasks will be presented over the internet and require you to practice a variety of learning tools used by professional automotive technicians. Each Friday morning you will apply what you have learned outside of class to diagnose automotive systems using the Labscope. This hybrid course requires at least 5 additional hours between each weekly class meeting.

### **Learning Tools:**

Your most reliable learning tool is time spent researching and practicing the lab-scope. Operator and reference manuals for lab scopes and textbooks that explain computer systems, sensors and actuators are available in the automotive classroom. Many resources are available in the Moodle website for Labscope Diagnostics. The LBCC extended learning centers (in Corvallis, Lebanon & Sweet Home) have computer labs available for your use.

### **Instructor:**

Phil Krolick (541) 917-4602 e-mail: Phil.Krolick@linnbenton.edu

My office is in IA-119 and I am available Monday Tuesday and Wednesday from 12:00 – 1:00. I can also easily schedule a time that meets your schedule. Please contact me for any reason!

### **Lab Safety:**

Safety glasses will be worn at all times students are in an active lab environment.

To participate in lab activities, students must exhibit safe dress and behavior.

## Course Outcome Assessment and Grading:

The work you submit will be assessed at one of these four levels.

*You may revise any work to improve your ability with the labscope and online learning.*

1) Beginner 2) Apprentice 3) Technician 4) Master Technician

**A** = Technician performance in collecting and interpreting labscope patterns, completion of online learning tasks and independent learning.

**B** = Apprentice performance in labscope patterns, online learning tasks and independent learning  
OR Technician level performance with labscope patterns and either online learning tasks or independent learning.

**C** = Apprentice performance with labscope patterns and your choice of online learning tasks or independent learning  
OR Technician level performance with collecting and interpreting labscope patterns.

**D** = Apprentice level performance with collecting and interpreting labscope patterns

**F** = Below Apprentice level performance for collecting and interpreting labscope patterns

**I** = Incomplete grades are available with a written student contract.

**Y** = Y grade is given to those attending less than 4 of the 10 classroom sessions.

### Prerequisite:

To enroll in this class you must have completed AU3.297 or have equivalent experience with automotive electrical and electronic systems.

### College Resources

Tiffany Castillo (917-4796) e-mail [CASTILT@linnbenton.edu](mailto:CASTILT@linnbenton.edu) is available in the counseling center. She will help you succeed at LBCC and can refer you to many types of student services.

An on-line overview of student resources is at [www.linnbenton.edu/auto/student\\_serv.htm](http://www.linnbenton.edu/auto/student_serv.htm)

### Student Rights & Responsibilities:

Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor during the first week of class. If you have not accessed services and think you may need them, please contact Disability Services, 917-4789. The Office of Disability Services is online at [www.linnbenton.edu/go/disability-services](http://www.linnbenton.edu/go/disability-services)

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see Board Policy 1015 at <http://po.linnbenton.edu/BPsandARs/>

You must behave in a manner that promotes learning, and is respectful to all individuals.