

HV3.123 CT3.123

Class 1:00 PM - 4:50 PM; Room AT-H 104

Instructor: John Alvin

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Office hours: by appointment

The Textbook:

CDX Automotive bundle, consisting of:

- Fundamentals of Medium/Heavy Duty Commercial Vehicle Systems, ISBN: 978-1-284-04116-3;
- Fundamentals of Medium/Heavy Duty Diesel Engines, ISBN: 978-1-284-06705-7;
- Fundamentals of Mobile Heavy Equipment, ISBN: 978-1-284-11291-7
- CDX Student Workbook, ISBN: 978-1-284-09148-9
- Two year internet access pass to the LBCC CDX website
- Pocket Ref, ISBN: 978-1-885071-62-0

Course Outcomes: This course is designed to give you a practical working knowledge of safety and accepted work practices in the trades' area of employment. It uses Safety and Regulatory Agency Rules as a foundation, and also includes forklift training. This course also introduces skills which are required in the Heavy Equipment / Diesel equipment industries.

All the learning activities are designed to improve your ability to practice and perform these **Course Outcomes:**

1. Follow safe shop practices. **Safety is first, last, and always.**
2. Demonstrate and used personal protection equipment and hazardous materials
3. Demonstrate the proper inspection, care and storage of electric tools
4. Demonstrate the proper use of hand tools
5. Demonstrate proper lock out tag out procedures
6. Demonstrate understanding of the Hazard Communication standard and Safety Data Sheets

Course Schedule: Reading assignments; homework assignments; quizzes and tests and will be due according to the course schedule; with the instructor reserving the right to change the schedule to match class progress in the subject matter. The course homework assignments schedule will be posted to the Google Drive with the students being given access to the same.

Course Schedule is listed below (some changes make take place as class progresses):

- Week 1: General rules & requirements, overall *Safety* in the shop, and personal conduct
Identification of basic hand tools, sockets, wrenches, chisels, hammers, hacksaws and torque wrenches
- Week 2: NC3 Precision measurement Tapes/ Rules / Tools/ Angles
- Week 3: Forklift Training Moodle (classroom) / On truck test / Certification
- Week 4: Fasteners - grade, type, thread pitch, metric vs USS / SAE, torque to yield, and counterfeit - subgrade
Fastener adhesives and sealants - Loctite
- Week 5: Taps, dies and reamer use Broken bolt extractors, removal methods - broken fasteners and heli-coil use
- Week 6: Belts, pulleys, sheaves, sprockets, chains and gears combinations, alignment and service
bearing types, uses and failure analysis
- Week 7: Torque / bolt strength / Identification
- Week 8: Lifting equipment, jack stands and hoists - proper use and safety, including: slings, chains, cables, binders, etc.
Hydraulic press operation, porta power use, pullers and pressing
- Week 9: Electrical tool usage in the shop setting
Use and care of cleaning equipment, including: hot water washer, steam cleaner, solvent tank
blow guns, sand and glass bead blasting equipment
- Week 10: OSHA Regulations, Review of general shop safety and hazards - PPE usage review
Field service overview, safety, proper tools and equipment
- Week 11: FINALS

Expectations

1. Attend all class sessions.
2. Participate in discussions.
3. Complete all assignments.
4. Actively demonstrate and practice appropriate professional, and respectful behavior.
5. Be on time.
6. Mute cell phones and all other electronics: all devices are to be out of sight; unless being actively used as directed by the instructor.
7. Be prepared for class: assignments, reading, Personal Protective Equipment (PPE).
8. Be academically honest and have integrity.

Required uniform, supplies, and Personal Protective Equipment (PPE):

1. Laptop or tablet PC (Cell phone alone is not adequate!) equipped with the technical capabilities to access the CDX online materials; and with a screen size large enough to adequately view the animations and videos in the materials.
2. Clipboard; sized to hold 8.5”w x 11”h papers
3. Pocket flashlight
4. Safety glasses: Must meet ANSI Z87.1 standards as a minimum requirement
5. Ear protection: ear muffs are required
6. Closed toe leather work shoes

7. Two (2) Snap-On uniform shirts, or the student's sponsoring company's uniform shirt
8. Coveralls in good repair; minimum of one set

Lab Safety: No equipment is to be used, or work performed, unless an instructor or instructor assistant is present. Some equipment in the classroom, lab, and shop requires special certification, license(s), training and/or other unique prerequisites before use. **Safety glasses will be worn in the active lab environment.** Safety glasses must meet ANSI Z87.1 standards as a minimum requirement. Contact lenses are not safe, even under safety glasses, and are not recommended. To participate in lab activities, you must first complete "Lab #1: Lab Safety Awareness". You must at all times maintain safe work habits and practices while in the class and lab exercises.

Preparation, Participation, and Attendance: Attendance in class is recorded each class period. Tardiness is recorded as a component of Attendance. Attendance policy for this class is: Come to every class on time; with the reading and homework assignments completed; and be ready to be active learners. If you will be late or absent to a class: send an email to the instructor; and leave a voicemail message on his office phone. Attendance is a component of the Professional Shop Practices portion of the class grade.

Lectures, Quizzes, Tests, and Other Academic Activities: Take large amounts of handwritten notes. Hand written notes are allowed to be used as reference for tests and quizzes; unless otherwise stated at the start of the exercise. All answers to homework assignments, quizzes, and tests must be legible: if the instructor can't read the answer, the answer is wrong. This is a component of the Professional Shop Practices portion of the class grade.

Housekeeping: Keep the classroom and all work areas clean and organized as possible. At the end of the class and/or lab session the classroom and work areas will be cleaned; tools and shop equipment cleaned and returned to their proper storage locations; and the AT-H building shared common areas will be cleaned and tidied. Housekeeping is a component of the Professional Shop Practices portion of the class grade.

Cell Phones and Other Electronic Devices

Cell phones, tablets, laptops, PCs and other electronic sources of information will be specifically identified for use if and only if; and only when needed for the specific individual evaluation activity. As a rule, your cell phone must be out of sight at all times during class and turned to "silent"/"mute"/etc. If you must take or make a call, step outside the classroom and return when finished. See Appendix E in the Student Handbook. Appropriate use of cell phones and other electronic devices is a component of the Professional Shop Practices portion of the class grade.

Lab Exercises

Lab exercises present the opportunity to repeatedly exercise the skills and techniques presented in class in a controlled setting to sufficiently retain and reinforce the knowledge through repetition. These are the foundation skills of this trade. The homework, quizzes, tests and other administrative activities reinforce the abilities to follow instructions and improve knowledge retention, among other skills. Performance in lab exercises is a 40% component of the overall course grade.

Evaluation

Much of the learning in this course is directly related to the students' involvement in the course activities. Professional Shop Practices include, but are not limited to: Wearing uniform; attendance; time management; attention to details; determination; good manners and etiquette; cleanliness and housekeeping, shop stewardship; tool care, storage and security; and other "soft skills" that employers value. Professional Shop Practices comprises 10% of the class grade.

Grading

A Daily Professional performance grade will be recorded for each class period based on: punctuality, safety, teamwork, effective communication, diligence, cleanliness and the proper use of tools, procedures and specifications, and other “soft skills” that employers value. You must be in class to earn a Professional performance grade for that day.

The purpose of the daily professional grade is to help students unfamiliar with the culture of the employment setting make the personal adjustments adjustments to be able to work within an organization.

DAILY PROFESSIONAL GRADE

40% of your grade

This grade is a compilation of key points as they relate to student professionalism.

These key points are as follows:

Punctuality Attitude Uniform Character Honesty

Integrity Craftsmanship Cleanliness Organization

Neatness and legibility of paperwork

Respect of peers Respect of authority Respect of property

Homework and reading assignments will be due according to the associated schedule; with the instructor reserving the right to change the schedule to match class progress in the subject matter.

Quizzes and tests will be due according to the associated schedule; with the instructor reserve the right to change the schedule to match class progress in the subject matter. There will be regular scheduled and random quizzes throughout the class.

NATEF Style Lab Evaluation Performance Standard

0 - No Exposure: no information or practice provided during the program; complete training required.

1 - Exposure only: General information provided with no practice time; close supervision needed; additional training required.

2 - Limited practice: Has practiced job during training program; additional training required to develop skill

3 - Moderately skilled: Has performed job independently during the training program; limited additional training may be required.

4 - Skilled: Can perform job independently with no additional training.

The Heavy Equipment/Diesel Department Absences Policy

Absences Policy: **Eight** undocumented class absences during the 11 week term shall result in an automatic course grade of "F" for material nonparticipation.

Four undocumented class absences during the 5 week term/Class shall result in an automatic course grade of "F" for material nonparticipation.

TWO undocumented class absences during the 11 week term on a class that meet once a week /Class shall result in an automatic course grade of "F" for material nonparticipation.

Only absences covered through the Center for Accessibility Resources documentation, or DOCUMENTED emergency absences (for yourself only) will be excused. Job conflicts, oversleeping, car trouble, travel delays, traffic jams, and other such minor life events are not considered emergencies.

Documentation must be physically handed to the instructor within five (5) business days (Monday through Friday) of the absence for it to be excused.

For further information see also:

[7000 Series Administrative Rules - Student Affairs](#) Grading System:

- Daily professional grade 40% of final grade
- Lab Activities..... 40% of final grade
- Homework /Quiz /Midterm/Final Exam..... 20% of final grade

At the end of the term you will receive one of these letter grades.

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = 59% and Below

W - Withdraw; student must select this grade prior to the last day of the seventh week of the term. If you decide you must exercise this option, do not wait until the last minute. Contact Registration to confirm the exact details of this decision. To receive a tuition refund, financial aid, and Veterans programs, other criteria affect the exact date and implications to the student: contact the appropriate department well before this general deadline.

Homework, labs, reading assignments, quizzes, tests, and all other class work will be due according to the associated schedule; with the instructor reserve the right to change the schedule to match class progress in the subject matter. If there is no published schedule; the due date will be determined when the material is handed out.

Students are responsible for requesting any work missed due to tardiness or absence. Material turned in late will be assessed a 20% penalty each calendar day it is late from the due date. All class material to be turned in for a grade must be submitted within two calendar days of their due date; or no credit will be given.

Learning Styles and Resources

During lecture sessions we will use lecture, discussion, multimedia presentations, PowerPoint presentations, videos, photos, and many other means to present materials.

If you are having difficulty with any of the concepts or procedures in this course, or have a preferred learning style, do not hesitate to talk with me. I am available for consultation or tutoring and will work with you to explore the many resources available to make your education more successful.

The Learning Center is an excellent resource for improving your skills as a lifelong learner and is a great place to study and do homework. They have computers, mini courses on study skills and a very helpful staff. They will help you with any subject you are taking at LBCC.

Computer Labs are available on the Albany campus; and in Corvallis, Lebanon and Sweet Home

Center for Accessibility Resources; RCH-105: Students who may need accommodations due to documented disabilities, or 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 believe you may need accommodations, but are not

Personal Conduct: Students will behave in a manner that promotes learning and is respectful of all individuals.

Horseplay is dangerous in a shop setting, and will not be tolerated!

Frustration and Anger Management: It is only natural to become frustrated when the project you're working on does not cooperate. However, that's the nature of the business. Learn to walk away for a while and cool off, re-think what you're doing, and ask for help or advice. Above all else, be professional. Uncontrolled anger can lead to unsafe work habits, which are not tolerated.

Under the Influence: Due to the inherent danger of the shop areas, any student suspected of being under the influence of intoxicants will be asked to leave the shop area.

ADA/CFAR statements

You should meet with your instructor during the first week of class if:

1. You have a documented disability and need accommodations.
2. Your instructor needs to know medical information about you.
3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources (CFAR) [Online Services webpage](#)

<https://cascade.accessiblelearning.com/LBCC/>

every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the [CFAR Website](#) <https://www.linnbenton.edu/cfar>

for steps on how to apply for services or call (541) 917-4789.

NON-DISCRIMINATION POLICY

LBCC maintains a policy of nondiscrimination and equal opportunity in employment and admissions, without regard to race, color, sex, marital and/or parental status, religion, national origin, age, mental or physical disability, Vietnam era, or veteran status.

Basic needs statement:

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support (resources@linnbenton.edu), or visit us on the web www.linnbenton.edu/RRC under Student Support for Current Students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

I _____ have read the syllabus for
“Fundamental Shop Skills”, CT3.123 for Construction Equipment or
HV3.123 for Heavy Equipment/Diesel. I understand the course syllabus
contents and agree to comply with its details and instructions.

Signature

Date

Printed Name

X number