

General Information

Instructor Information and Availability

Instructor: Denny Wood

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Course Information

Course name: Process Cont & Instrumentation

Section number: APR 222 CRN: 23075 Number of credits: 4

Scheduled time/days: See Moodle Classroom(s): On Moodle/Zoom, Rm IA213

Prerequisites:

Limited Electrical Apprenticeship registration, APR 121, APR 122, APR 123, APR 221

Course Materials

Required: (Before purchasing - See Kim Hammer for details on book availability)

- Contren Learning Series, Electronic Systems Technician, Level 4, Edition 3
- NFPA 70 2020 Edition
- OAR, ORS, and other code test related material

Technology Recommendations

It is possible that LBCC campuses will need to be closed to the public at times during fall term, depending on public health directives. If this does occur, our class will be delivered fully remotely and we won't be able to meet face-to-face. LBCC is encouraging students to be as prepared as possible for this possibility by encouraging you to obtain the equipment you will need in order to be successful in any modality. Please see the recommended list of equipment below. Students who cannot afford these resources can contact the [Roadrunner Resource Center](#) about funding.

*Note to faculty: Include either list of equipment recommendations below, based on anticipated instructional needs. For information to help you make that choice, consult this document on [student technology recommendations](#).

Standard equipment recommendation

- Broadband internet
- A computer with 256g SSD, 8G RAM, i5 6th gen processor (or equivalent functionality)

- Device with a microphone and speaker
- Device with a camera
- Students can consult [Standard Recommendation 1](#) or [Standard Recommendation 2](#) if they are looking for a product recommendation

Minimum equipment recommendation

- A wifi hotspot
- A computer with 128g SSD, 4G RAM, i3 6th gen processor (or equivalent functionality)
- Device with a microphone and speaker
- Device with a camera
- Students can consult [Minimum Requirement 1](#) if they are looking for a product recommendation

Course-Specific Requirements

Limited Energy Technician program requirements. See Lena Gates for details.

Course Description

Designed for the apprentice working/studying to become a licensed Limited Energy Technician. The topics covered in this course include: Instrumentation, Process Control and Distributed Control Systems. Emphasis will be placed on NEC/safety requirements as they relate to each of these systems. NEC practice exams will be administered during the last three weeks of the term. Recommended: MTH 075 Variable and Linear Equations.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

Define process measurement and control. Describe the elements of an instrument channel including: Detectors, transducers, amplifiers, transmitters, controllers, and actuators. Define a distributed control system (DCS).

Class Policies

Behavior and Expectations

Use your LB email! You can set it to 'Forward' to a different email and you can leave groups so you don't get as much junk mail. This is required.

During live Zoom sessions, please raise your hand so that we can maintain some order, I will respond to you as soon as possible. Otherwise, please keep your microphone muted.

Please ask class related questions! If you aren't sure what you are doing, ask me, or when we

have the final, you may not know what you are doing, and not do well enough to pass the class, which is even less fun.

Do share with the class, but please keep it related to Limited Electrical. Please share tricks you learned. Remember that 1 Journeyman that showed you to tape from 1 direction, so the edges of the tape run opposite the pull, to pull the tape tight, to use regular scissors to cut labels. These are the types of tricks of the trade I want you all to share so you can all be better than ALL of your journeymen combined!

You are held accountable to the [Student Code of Conduct](#), which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct.

Use of cell phones

If you have to take a work related call, please be prepared to share with the class. It is important to share things like this with the class, so they are aware of what may happen to them at some point in the future.

Attendance/Tardiness Policy

Attendance will be measured in participation. Please attend live Zoom sessions, and 'Share your stories.'

Testing

Final is going to be during our regular Wednesday class time from 5 to 9 in room IA213. This is subject to change.

Grading

	Points	Times	Total	Percent
Attendance	4	11	44	22.56%
Expectations	4	1	4	2.05%
Register	1	1	1	0.51%
Chapters	4	1	4	2.05%
Code Quiz	4	7	28	14.36%
Assignment	16	3	48	24.62%
Module	8	2	16	8.21%
Final	50	1	50	25.64%
Total			195	100.00%

How final grade is calculated (e.g. 75% = C)

Final Grade Calculation:

- A = 90-100% Excellent Work
- B = 80-89% Good Work
- C = 70-79% Average Work
- D = 60-69% Poor Work
- F = 0-59% Failing Work

Late Assignment Policy

I will not accept late assignments. I have done so in the past, but due to abuse of this I have changed my mind. If you have a special circumstance, please contact me prior to this issue and I might allow individual accommodations. Working is not an exception, I give plenty of time to complete the assignments.

College Policies

LBCC Email and Course Communications

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email and your Moodle account through Moodle.

Disability and Access Statement

LBCC is committed to inclusiveness and equal access to higher education. If you have approved accommodations through the Center for Accessibility Resources (CFAR) and would like to use your accommodations in this class, please contact your instructor as soon as possible to discuss your needs. If you think you may be eligible for accommodations but are not yet registered with CFAR, please visit the [CFAR Website](#) for steps on how to apply for services. Online course accommodations may be different than those for on-campus courses, so it is important that you make contact with CFAR as soon as possible.

Statement of Inclusion

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

Title IX Reporting Policy

If you or another student are the victim of any form of sexual misconduct (including dating/domestic violence, stalking, sexual harassment), or any form of gender discrimination, LBCC can assist you. You can [report](#) a violation of our sexual misconduct policy directly to our Title IX Coordinator. You may also report the issue to a faculty member, who is required to

notify the Coordinator, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

Public Safety/Campus Security/[Emergency Resources](#):

In an emergency, call 911. Also, call LBCC Campus Security/Public Safety at 541-926-6855 and 541-917-4440.

From any LBCC phone, you may alternatively dial extension 411 or 4440. LBCC has a [public safety app](#) available for free. We encourage people to download it to their cell phones. Public Safety also is the home for LBCC's Lost & Found. They provide escorts for safety when needed. Visit them to learn more.

Changes to the Syllabus

I reserve the right to change the contents of this syllabus due to unforeseen circumstances. You will be given notice of relevant changes in class, or through LBCC e-mail.

Class Calendar or Schedule

Week	Activities	Due dates
1	Expectations NFPA NEC Chapters	Zoom
2	Module 33406-12 Code Quiz 1	Zoom
3	Assign 1 / Lab 1 Code Quiz 2	In person IA213
4	Module 33409-12 Code Quiz 3	Zoom
5	Assign 2 / Lab 2 Code Quiz 4	In person IA213
6	Code Quiz 5	Zoom
7	Assign 3 / Lab 3 Code Quiz 6	In person IA213
8	Code Quiz 7	Zoom
9	TBD	Zoom
10	TBD	Zoom
11	Final Exam	Zoom