

Division of Construction Engineering Technology, HVAC, Industrial Electrical Construction Industry Department

https://www.hccs.edu/programs/areas-of-study/construction-industry-manufacturing/

ELPT 1321: Intro to Electrical Safety and Tools | Hybrid | #11210

Fall 2020 | 16 Weeks (08.24.2020-12.13.2020) Hybrid | Central J.B. Whiteley 201 | Mon 8:00 a.m. - 9:50 a.m. 3 Credit Hours | 64 hours per semester

Instructor Contact Information

Instructor: Walter Adams Office Phone: 713-718-6805

Office: J.B. Whiteley, Room 201 Office Hours: M,W,TH 3:00-5:30 p.m.

HCC Email: walter.adams@hccs.edu Office Location: Central Faculty Area

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics.

Instructor's Preferred Method of Contact

I will respond to emails within 24 hours Monday through Friday; I will reply to weekend messages on Monday mornings.

What's Exciting About This Course

One of the most exciting aspects of learning anything is to start gather tools and equipment and to start learning how to use them properly and safely. Do you know what a set of wire strippers are? Do you know about different kinds of drill bits? Do you know which set of pliers to grab to do a certain job? What about how to work safely? Are you a qualified person? All of the answers to these questions and many, many more await you in this course. It will be excited and fun, but at all times, we will have a safe environment to explore the beginning journey as you learn how to work safely with electricity.

My Personal Welcome

Welcome to Introduction to Electrical Safety and Tools. I am excited about this upcoming semester and being your instructor for the next 16 weeks. I love electricity and anything associated with that discussion. I am still fascinated by the light bulb, I really am. I will present the information in the most exciting way I know, so that you can grasp the concepts and apply them now and hopefully throughout your life. As you read and wrestle with new

ideas and facts that may challenge you, I am available to support you. The fastest way to reach me is by my HCC email. The best way to really discuss issues is in person and I'm available during posted office hours to tackle any questions you might have. My goal is for you to walk out of the course with a better understanding of electrical tools and safety so you can enjoy a great career as an electrical worker. So please visit me or contact me whenever you have a question.

Prerequisites and/or Co-Requisites

ELPT 1321 requires college-level reading and writing skills. You will be using a computer about half the time in this class so make sure you ask questions as we go along in regard to that if you are not as adept at that skill Other than that, you should just have a willingness to learn and explore your environment. Please carefully read and consider the repeater policy in the HCCS Student Handbook.

Canvas Learning Management System

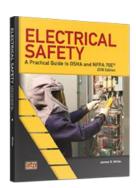
This section of ELPT 1321 will use <u>Canvas</u> (https://eagleonline.hccs.edu to supplement inclass assignments, exams, and activities. There will be weekly videos to watch, assignments to tackle, and quizzes to do. It is your responsibility to keep up with deadlines. If you miss a deadline, it will be closed to you so make sure and stay up on your to do's for this class. HCCS Open Lab locations may be used to access the Internet and Canvas. USE FIREFOX OR CHROME to supplement inclass assignments, exams, and activities. There will be weekly videos to watch, assignments to tackle, and quizzes to do. It is your responsibility to keep up with deadlines. If you miss a deadline, it will be closed to you so make sure and stay up on your to do's for this class. HCCS Open Lab locations may be used to access the Internet and Canvas. USE FIREFOX OR CHROME AS THE INTERNET BROWSER.

Scoring Rubrics, Sample Assignments, etc.

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. https://eagleonline.hccs.edu/courses/95222

Instructional Materials





The textbook listed below is *required* for this course. "Electrical Safety: A Practical Guide to OSHA and NFPA 70E" (2018 edition) by James R White ISBN: 978-0-8269-3593-9

It is for sale at the <u>HCC Bookstore</u>.

Other Instructional Resources

Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the <a href="https://example.com/hCC-tutoring-com/hCC-tutor

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at http://library.hccs.edu.

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at http://www.hccs.edu/resources-for/current-students/supplemental-instruction/.

Course Overview

ELPT 1321 is a course of the safety rules and regulations according to OSHA and NFPA 70E. It also includes the selection, inspection, use, and maintenance of common tools for electricians.

Core Curriculum Objectives (CCOs)

ELPT 1321 is a building block class in your journey towards a qualified, skilled electrical worker, and this course should address the following core objectives:

- **Safety Above All**: Students will demonstrate the ability to choose the proper tool while practicing safety to ensure that all people in the surround work place area are safe from harm.
- **Communication Skills:** Students will demonstrate effective communication through visual, written, and spoken to develop themselves as qualified electrical workers
- **Critical Thinking**: Students will demonstrate critical thinking skills in choosing proper personal protection equipment and tools in order to accomplish tasks in a safe and proper manner.

Program Student Learning Outcomes (PSLOs)

Can be found at:

https://www.hccs.edu/programs/areas-of-study/construction-industry-manufacturing/industrial-electricity/

Course Student Learning Outcomes (CSLOs)

Upon completion of ELPT 1321, the student will be able to:

- 1. Explain electrical hazards and how to avoid them in the workplace.
- 2. Discuss safety issues concerning lockout/tagout procedures.
- 3. Demonstrate safe work habits using common hand and power tools for electricians

Course Requirements

- Face-to-face sessions will be held on the HCC Central campus in the J.B. Whiteley Building Room 201
- This class will be a blend of individual and group activities in and out of class. Activities will consist of videos, laboratory exercises, and spreadsheets.
- You will also be required to have or buy the recommended tools/supplies for this course.
- You will be required to work with your tools and wire basic circuits.

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as your guide.

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and make up
- Provide the course outline and class calendar which will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Attain a raw score of at least 50% on the departmental final exam

• Be aware of and comply with academic honesty policies in the <u>HCCS Student Handbook</u>

Assignments, Exams, and Activities

Tool Laboratories

The tool labs will be made up of exercises from the videos that you watched the week before online. They will include some tools that you <u>MUST</u> buy and some that I will provide for you to use. It is imperative that you buy your tools and bring them to class so you can get credit for this part of your grade. We will be doing a new tool lab every week except for test weeks. Make sure and show up with your required tools so you can get credit for this laboratory each week.

Tool Talk Discussions

Each student will watch videos on a weekly basis. After watching all the videos, students will comment on two different videos that you found interesting. You will be required to write, specifically, two sentences minimum per video on things that you found interesting, profound, or maybe didn't know. Stories are always welcome after you deal with the required portion of this exercise. Do not write nonsense or philosophical babble. Remember, I can tell if you watched the videos or not.

Career Center Activities

You will be assigned several activities from Tosha Gonsoulin with HCC's Career Center. These will account for 10% toward your final grade. These will be activities like working on a resume, interview skills, job fairs, informational session, and many, many more things. She is really great to work with, and I know that you will have fun. The main thing is it will help get you towards your end result here, employed.

Quizzes

You will be assigned a total of 10 quizzes which will be online on your Canvas class shell. You are responsible for taking and completing the quizzes within the assigned time frame. Each quiz will count towards 2% of your final grade. There will be no extensions on quizzes under any circumstance. Also, quizzes will be your study guides for the midterm and final exam. If you don't take a quiz, you will not be able to view the correct answers.

Midterm Exam

Each student is responsible for taking and passing a midterm exam. This exam will consist of knowledge learned from in class lectures, readings in the textbook, online participation videos, and tool laboratories.

Final Exam

Each student is responsible for taking and passing a final exam. This exam will consist of knowledge learned from in class lectures, readings in the textbook, online participation videos, and tool laboratories.

Grading Formula

Online Quizzes	20%
Labs/Assignments	20%
Tool Talk Discussions	10%
Career Center Activities	10%
Midterm Exam	20%
Final Exam	<u> 20%</u>
Total for class	100%

Grade	Total Points
Α	90% - 100%
В	80% - 89%
С	70% - 79%
D	60% - 69%
F	<60%

HCC Grading Scale can be found on this site under Academic Information: http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar

Week	Dates	Topic/What's due
	Mon	Syllabus
1	08/24	Tool List
		Canvas Introduction
		Module 1 Opened
	Mon	Chap 1: Electrical hazards & basic electrical safety Concept
2	08/31	Module 2 Opened
		Quiz – Chapter 1 (closes before next class)
	Mon	Labor Day Holiday
3	09/07	Chap 2: Multi-employer worksites & electrical safety program
		Canvas Module 3 open
		Quiz – Chapter 2 (closes before next class)
	Mon	Chap 3: Training of qualified and unqualified workers
4	09/14	Canvas Module 4 open
		Quiz – Chapter 3 (closes before next class)
	Mon	Chap 4: Approach boundaries for chock arc flash hazards
5	09/21	Canvas Module 5 open
		Quiz – Chapter 4 (closes before next class)
	Mon	Chap 5: Performing a risk assessment
6	09/28	Canvas Module 6 open
		Quiz – Chapter 5 (closes before next class)
7	Mon	Lab class
/	10/05	Canvas Module 7 open
8	Mon	Midterm Exam (in class)
	10/12	Canvas Module 8 open
9	Mon	Chap 6: Establishing an electrically safe work condition
	10/19	Canvas Module 9 open
		Quiz – Chapter 6 (closes before next class)

	Mon	Chan 7. Working an appropriated conductors and circuit parts		
	_	Chap 7: Working on energized conductors and circuit parts		
10	10/26	Canvas Module 10 open		
		Quiz – Chapter 7 (closes before next class)		
	10/30	Last Day to Withdrawal with a "W"		
	Mon	Chap 8: Portable electric tools and flexible cords		
11 11/02 0		Canvas Module 11 open		
		Quiz – Chapter 8 (closes before next class)		
	Mon	Chap 9: Selecting and inspecting PPE		
12 11/09		Canvas Module 12 Open		
	-	Quiz – Chapter 9 (closes before next class)		
	Mon	Chap 10: Guidelines for common electrical tasks		
13 11/16 Canvas Module 13 Open		Canvas Module 13 Open		
		Quiz – Chapter 10 (closes before next class)		
14 Mon		Lab class		
14	11/23	Canvas Module 14 Open		
Lab class		Lab class		
15	11/30	Canvas Module 15 Open		
1.6	Mon	Final Exam		
16	12/07	Canvas Module 16 Open		

Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

Instructor's Practices and Procedures

Missed Assignments

There will be no make up for missed assignments. I am allowing you a reasonable amount of time to get all labs and assignments done. Also, there will be no makeup exam so make sure to not miss exam days. Any missed assignment or exam will earn a grade of "0" on that exercise.

Academic Integrity

Students are responsible for conducting themselves with integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by college district officials against a student accused of scholastic dishonesty. "Scholastic Dishonesty" includes, but is not limited to, cheating on a test, plagiarism and collusion. Any instance of scholastic dishonesty may be reported to the Maxiant system. Possible punishments for scholastic dishonesty include a grade of "0" or "F" on the assignment, failure in the course, and/or recommendation for probation or dismissal from the college district. A recommendation for suspension or expulsion will be referred to the college Dean of Students for disciplinary disposition. Students have the right to appeal the decision.

Cheating, plagiarism, collusion, etc. will result in a grade of F for the course and a report will be filed with the Dean.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/

Attendance Procedures

You are encouraged to attend each class since regular attendance correlates with good grades. Be on time and attend the entire class. If you must be absent, you are, of course, responsible for the material covered in class in your absence (see the Course Calendar). Be advised that instructors must drop students who fail to attend class by the official date of enrollment ("Census Day"). In addition, instructors may drop students who miss 10 hours/4 days or 12.5% of class time.

Student Conduct

I expect students to conduct themselves professionally in their communications with me, classmates, and college staff and administration, whether in email or in class. Behavior inappropriate to the collegiate setting (including but not limited to abusive/derogatory/threatening/harassing language directed at the instructor or towards other students, staff or administrators) will not be tolerated and may result in removal from the course if severe and/or repeated. To ensure privacy of your classmates, taking photos in class is strictly prohibited.

Instructor's Course-Specific Information (As Needed)

We will adhere to a strict dress code in this class because of safety reasons. No shorts or sweat pants will be allowed in class. No flip flop or open toed shoes will be permitted. You must wear rubber soled boots or sneakers. At all times, all conductive materials to include earrings, rings, necklaces, and other type metal items must be removed during class. During labs, safety glasses will be worn and covering your eyes not on your head. Failure to wear safety glasses during labs or practicing unsafe behaviors in lab will be automatic expulsion from the class for the day, no exceptions.

Electronic Devices

The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for purposes other than student learning is strictly prohibited. If an instructor perceives such use as disruptive and/or inappropriate, the instructor has the right to terminate such use. If the behavior continues, the student may be subject to disciplinary action to include removal from the classroom or referral to the dean of student services. Cell phones will be on vibrate or off. If you need to take an emergency phone call, step out in the hall and do so. Cell phone are not calculators, so please get a scientific calculator for class.

Industrial Electrical Program Information

New Associates Degree in Electrical Technology Fall 2019

Please look forward to our upcoming associate degree in Electrical Technology which opens Fall 2019.

Scholarship information for Workforce Students

Extra money is always welcomed while you are in school. Below are the scholarships that I know about that you should apply for if you meet the criteria for that scholarship. Keep in mind that there are many, many more scholarships out there. Shame on you if you don't apply. It is free money.

- HCC Foundation Workforce Scholarship \$1,000 award <u>https://www.hccsfoundation.org/workforceschlp</u>
- Mike Rowe's Scholarship (You can also look for jobs on his website) https://www.mikeroweworks.org/
- TEXVET.ORG Various Veterans Scholarships for Texas Veterans
 https://www.texvet.org/scholarships?distance%5Bpostal code%5D=77004&distance%5Bsearch units%5D=mile
- Home Depot School Scholarship \$2,500 and deadline to apply is 01/22/2019 https://www.thdhomerfund.org/orangescholars/
- Grainger Tool for Tomorrow Scholarship \$2,000 and a bag full of tools https://www.grainger.com/images/TFT-Brochure.pdf

Career Center/Job Placement

Make sure and take time to go to the Career Center, and let them help you with resume preparation, interview skills, and much more to help you once you are ready to enter the job market. Don't wait until you are fixing to graduate. For electrical, you can contact Gretchen Young. She is in the Learning Hub on Central Campus in room 115.

Gretchen Young - 713-718-2531 -gretchen.young@hccs.edu

HCC Policies

Here's the link to the HCC Student Handbook. https://www.hccs.edu/resources-for/current-students/student-handbook/ In it, you will find information about the following:

- Academic Information
- Academic Support
- · Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disability Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Students Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Students Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

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Academic Information	Incomplete Grades
Academic Support	International Student Services
Attendance, Repeating Courses, and Withdrawal	Health Awareness
Career Planning and Job Search	Libraries/Bookstore
Childcare	Police Services & Campus Safety
disAbility Support Services	Student Life at HCC
Electronic Devices	Student Rights and Responsibilities
Equal Educational Opportunity	Student Services
Financial Aid TV (FATV)	Testing
General Student Complaints	Transfer Planning
Grade of FX	Veteran Services

EGLS³

The EGLS³ (Evaluation for Greater Learning Student Survey System) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. -EGLS³ surveys are not offered during the Summer semester due to logistical constraints.

http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link

Here's the link to the HCC information about Campus Carry: http://www.hccs.edu/departments/police/campus-carry/

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID and activate it now. You may also use Canvas Inbox to communicate.

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (http://www.hccs.edu/departments/institutional-equity/)

disAbility Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or

temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/support-services/disability-services/

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross
Director EEO/Compliance
Office of Institutional Equity & Diversity
3100 Main
(713) 718-8271
Houston, TX 77266-7517 or Institutional.Equity@hccs.edu
http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/

Department Chair Contact Information

Aurelio Aguilar Department Chair aurelio.aguilar@hccs.edu 1301 Alabama Suite 201C Houston, Texas 77004 713.718.5284