

Basic Electrical Theory (ELPT 1311)

CREDIT

3 Semester Credit Hours (2 hours lecture, 3 hours lab)

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

None

COURSE DESCRIPTION

Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to explain atomic structure and basic values such as voltage, current, resistance, and power; determine electrical values for combination circuits in direct current (DC) and alternating current (AC) containing resistance, inductance, and capacitance; summarize the principles of magnetism; calculate voltage drop based on conductor length, type of material, and size; and utilize electrical measuring instruments.

- The student will learn how to explain atomic structure and basic values such as voltage, current resistance and power.
- The student will learn how to determine electrical values for combination circuits in direct current (DC) and alternating current (AC) containing resistance, inductance and capacitance.
- The student will learn how to summarize the principles of magnetism.
- The student will learn how to calculate voltage drop based on conductor length, type of material and size.
- The student will learn how to utilize electrical measuring instruments.

INSTRUCTOR CONTACT INFORMATION

Instructor: Henry Moore

Email: hmoore1@lit.edu

Cell Phone: (409) 782-5213

Office Location: Lineman Building, 1355 W MLK Jr Dr, Silsbee, TX 77656

Office Hours: MTWRF-7:30-8:00, MTWR-11:30-12:30, and by appointment.



**LAMAR INSTITUTE
OF TECHNOLOGY**

REQUIRED TEXTBOOK AND MATERIALS

None

ATTENDANCE POLICY

- Class attendance is important to obtain the educational objectives of this course. Regular attendance and being on time for classes will have a positive effect on your academics and employment opportunities.
- Two absences will result in 1 letter grade drop, three absences drop 2 letter grades.
- Four absences will result in an F for the semester.
- Three Tardies will count as 1 unexcused absence.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

DATE	TOPIC	Introduce Material	ASSIGNMENTS (Due on this Date)
8/25/2026	Power Systems	8/25/2026	
9/17/2026	Power Systems Exam		9/17/2026
9/22/2026	DC	9/22/2026	
10/23/2026	DC Exam		10/23/2026
10/27/2026	AC	10/27/2026	
11/5/2026	AC Exam		11/5/2026
11/10/2026	Three Phase	11/10/2026	
11/24/2026	Three Phase Exam		11/24/2026
12/2/2023	Practical Exam		12/3/2026

**Dates are subject to change at the instructor's discretion.*

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Activity	Percentage
Daily Grades	15%
Exam 1 – Power Systems	15%
Exam 2 - DC	20%
Exam 3 - AC	20%
Exam 4 – Three Phase	15%
Practical Exam	15%
Total	100%

GRADE SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ASSIGNMENT DUE DATES AND GRADING

1. If your assignment is not completed on the date it is due, the instructor may allow a "make-up". The highest grade possibly earned will be 70. **Note: In this event the Instructors' discretion will be exercised.**

GRADING POLICIES

1. All grades are recorded in Gradebook on Blackboard.
2. It students' responsibility to make sure their grades on their assignments match their grades in Blackboard Gradebook.
3. If there is a discrepancy, meet with me with the assignment in hand so I can correct it.

ADDITIONAL COURSE POLICIES/INFORMATION

1. No food, drinks in class.
2. Daily lab grades cannot be made up.
3. No make ups for Lab tests.
4. Any written test retake has an 70 points as the maximum grade.
5. LIT is a tobacco free campus- no tobacco products allowed
6. Students must follow safety rules and procedures at all times. Failure to follow safety rules will require disciplinary action not limited to expulsion from LIT.
7. Students must have and wear all required clothing including climbing boots at all times, and have PPE and tools for participation in class and Lab.
8. Turn off all Cell Phones during class, lab and when on the field. Ear buds and smart watches are to be put away during class, lab and when on the field. Unauthorized cell phone, ear bud, and/or smart watch use will result in a 0 for the daily grade.
9. Do not bring children to class.
10. Cheating of any kind will not be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result from expulsion from LIT.
11. Internet Usage
 - a. Classroom computers have access to the internet.
 - b. Student usage of the internet will be monitored.
 - c. Proper usage of the internet will be allowed. Used for classroom research or as directed.
 - d. Any unauthorized use of the internet will not be tolerated.
 - e. Improper usage of the internet, such as profanity, pornography, gambling, etc... will result in disciplinary action not limited to expulsion from LIT.
12. Horseplay and fighting will not be tolerated. Participating in horseplay and/or fighting will require disciplinary action not limited to expulsion from LIT.
13. Students will conduct themselves as they would in a work environment.
14. **ALL** Personal Protection Equipment (PPE) will be used when required (to be determined by the instructor). This includes Lineman boots, denim jeans, and long sleeve shirts every day, for classroom and field.