

Electrical Power Distribution (ELPT 2339)

CREDIT

3 Semester Credit Hours (1 hour lecture, 6 hour lab)

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

ELPT 1321

COURSE DESCRIPTION

Design, operation, and technical details of modern power distribution systems including generating equipment, transmission lines, plant distribution, and protective devices. Includes calculations of fault current, system load analysis, rates, and power economics.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to:

Explain major parts of utility systems; compare overhead systems versus underground systems; discuss mechanical design considerations to meet codes, standards, climate, and terrain relating to the utility systems; explain considerations for utility line; analyze energy economics; explain how smart grid technologies and standards effect power distribution systems.

INSTRUCTOR CONTACT INFORMATION

Instructor: Clayton Spoon

Email: cwspoon@lit.edu

Office Phone: 409-386-0225

Office Location: 1355 MLK Silsbee, TX 77656

Office Hours: Monday – Friday, 7:30 – 8:00 AM, 12:00 – 1:00 PM

REQUIRED TEXTBOOK AND MATERIALS

Lineman's and Cable man's Handbook (Thirteenth Edition) by Thomas M. Shoemaker, James E. Mack

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 unexcused absences** will result in 1 letter grade drop.

Approved: CS/1-23-23



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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	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1	URD Systems	Week 2	
Week 2	URD Homework		Week 3
Week 3	Metering	Week 4	
Week 5	Metering Homework		Week 6
Week 6	Substation	Week 8	
Week 9	Substation Homework		Week 10
Week 10	Power Systems	Week 11	
Week 11	Nominal Voltages	Week 12	
Week 12	Power Systems HMWK		Week 13

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

<i>Activity</i>	<i>Percentage</i>
Daily grades	20%
Metering Exam	20%
Underground Exam	20%
Underground Practical 1	15%
Underground Practical 2	15%
Substation Exam	10%
<i>Total</i>	<i>100%</i>

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.

ADDITIONAL COURSE POLICIES/INFORMATION

Insert additional course policies/information specific to your section here.