

Proposed Catalog Description

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APPROVED MAR 21 2007

Changes:

Student will be expected to place out of MATH 1310 by either Math Placement Exam, CLEP or have taken MATH 1310 prior to beginning courses in Electrical Power Engineering Technology.

ELET 4326 has moved from the elective block to become a requirement in the major courses.

Electrical Power Engineering Technology (EPTE)

The goal of the Electrical Power Engineering Technology program is to provide students with a high quality applications-oriented undergraduate education based on state-of-the-art technological equipment associated with electrical technology. This goal is achieved through several objectives such as continuing to update specific courses in the program to ensure relevance to the latest industrial changes, supporting the development of appropriate computer facilities, promoting the integration of advanced technology in all courses, and encouraging professional growth and development of the faculty.

The program is designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for life-long learning.

Students completing a major in Electrical Power Engineering Technology receive a strong foundation in measurement systems, analog and digital signal conditioning, microprocessor hardware and software, industrial electronics, and rotating machinery.

Students have the opportunity to select additional coursework in either control systems, power electronics, or electrical power.

Although analog electronics remain important, one of the newest and fastest growing areas is in the application of computers for control; this may be control within some manufactured product or control of some manufacturing process.

The manufacturers of electrical systems and machines need electrical power technologists who are familiar with machines and machine controls, both traditional and computer-controlled.

The electrical industry provides and controls the transformers, motors, generators, switch gear, and protection equipment required to power homes, businesses, and industries. Electrical power technologists plan electrical systems and modifications to existing electrical systems that generate and use large amounts of electricity required for distribution networks that are economical, safe, and functional.

Graduates of the Electrical Power Engineering Technology major understand, design, analyze, and work effectively in industrial settings utilizing product/process control systems and electrical power systems. Graduates are working in petrochemical companies, food manufacturing, steel processing, utilities, electrical equipment, sales, manufacturing and testing, and a host of other diverse industries.

Majors in Electrical Power Engineering Technology may use no grade below C- in junior and senior level ELET courses to satisfy major degree requirements.

Students pursuing a major in Electrical Power Engineering Technology must complete the following requirements, in addition to university core and general college requirements:

Major Requirements -

Electrical Power Engineering Technology

ELET 1300, 1100. Electrical Circuits I, Laboratory

ELET 1301, 1101. Electrical Circuits II, Laboratory

ELET 2301, 2101. Poly-Phase Circuits and Transformers, Laboratory

ELET 2303, 2103. Digital Systems, Laboratory

ELET 2305, 2105. Semiconductor Devices and Circuits, Laboratory

ELET 3301. Linear Systems Analysis

ELET 3405. Microprocessor Architecture

ELET 3307, 3107. Electrical Machines, Laboratory

ELET 3312, 3112. Programmable Logic Controllers and Motor Control Systems ,
Laboratory

ELET 4303. Computer-Based Power Distribution and Transmission

ELET 4305. Project Management and Economic Considerations for Power Systems

ELET 4310. Alternative Electrical Energy Sources and Power Quality Issues

ELET 4311. Computer-Based Communications and Security Issues for Electrical Power
Systems

ELET 4317. Computer-Based Electrical System Protection and Safety

ELET 4319. Electrical Power Systems and Industry Practices

ELET 4326. Power Converter Circuits

Approved Electives

(6 semester hours)

ELET 4304. Control Systems

ELET 4310. Alternative Electrical Energy Sources

ELET 4311. Communication and Security Issues

Approved ELET elective (3 advanced semester hours)

General Technology Requirements:

ELET 2300. Introduction to C ++ Language Programming

TELS 3340. Organizational Leadership and Supervision

or

HDCS 3300. Organizational
 Decisions in Technology

TELS 3363. Technical Communications

MECT 1364. Materials and Processes I

ITEC 2334. Information Systems Applications

Free electives (3 semester credit hours)

Technology and Other Requirements

Mathematics (14 semester hours which includes university core)

Students are required to have credit for MATH 1310 by Math Placement Exam, CLEP or completion of course.

MATH 1330. Precalculus

MATH 1431. Calculus I

MATH 1432. Calculus II

TMTH 3360 Applied Technical Statistics or MATH 3307 Statistical Applications

Natural Sciences (8 semester hours which includes university core)

PHYS 1301, 1101. Introductory General Physics I, Laboratory

PHYS 1302, 1102. Introductory General Physics II, Laboratory

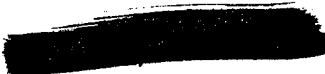
Social Sciences

(6 semester hours, 3 must be writing intensive)

Selected from core approved list.

Degree awarded: Bachelor of Science

Major: Electrical Power Engineering Technology



Current catalog Description

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Approved Electives

(6 semester hours)

ELET 4304. Control Systems

ELET 4326. Power Converter Circuits

Approved ELET elective (3 advanced semester hours)

General Technology Requirements:

ELET 2300. Introduction to C ++ Language Programming

TELS 3340. Organizational Leadership and Supervision

or

HDCS 3300. Organizational Decisions in Technology

TELS 3363. Technical Communications

MECT 1364. Materials and Processes I

ITEC 1301. Introduction to Computer Application Technology

Free electives (3 semester credit hours)

Technology and Other Requirements

Mathematics (14 semester hours which includes university core)

MATH 1310. College Algebra

MATH 1330. Precalculus

MATH 1431. Calculus I

MATH 1432. Calculus II

Natural Sciences (11 semester hours which includes university core)

PHYS 1301, 1101. Introductory General Physics I, Laboratory

PHYS 1302, 1102. Introductory General Physics II, Laboratory

CHEM 1301. Foundations of Chemistry

Social Sciences

(6 semester hours, 3 must be writing intensive)

Selected from core approved list.

Degree awarded: Bachelor of Science

Major: Electrical Power Engineering Technology