

**ET/ETE 253-001 CLASS SYLLABUS
INDUSTRIAL ELECTRONICS**

INSTRUCTOR: Michael A. Binzer
INSTRUCTOR'S OFFICE: 125 Moloney Building
OFFICE HOURS: As posted or by appointment
OFFICE PHONE: 859-257-4872 ext: 4109
INSTRUCTOR'S E-MAIL: mike.binzer@kctcs.edu

PROGRAM COORDINATOR: Michael A. Binzer (As Above)
DIVISION CHAIR: Cindy Barber; ext: 4112
DIVISION PHONE: 859-257-4872 ext: 4004

COURSE DESCRIPTION:

This course covers solid state elements of industrial control including Triacs, SCRs, triggering devices, computer control issues, photo-electronics, industrial applications of electronics and other control devices. Lecture three hours; Laboratory two hours.
Prerequisite: ET 241 or consent of instructor

COURSE OBJECTIVES:

To explore electronic devices used in industrial control.
To explore industrial controls from a systems approach.

PREREQUISITES: ETE 241 or consent of instructor

TEXT: "Industrial Electronics Third Edition"; Thomas E. Kissell; Prentice Hall

COURSE REQUIREMENTS

One Test-	25%
Experiments-	25%
Homework/Assignments-	25%
Final Exam-	25%

GRADE SCALES:

90%-100%	A
80%-89.5%	B
70%-79.5%	C
60%-69.5%	D
Below 59.5%	E

ATTENDANCE POLICY:

Students are expected to attend lectures and labs. The labs must be completed in the LCC labs using LCC equipment.

LATE WORK POLICY:

Late work without an excused absence will be discounted by 20% per day in credit and accepted at the discretion of the instructor.

**ET/ETE 253-001 CLASS SYLLABUS
INDUSTRIAL ELECTRONICS**

MAKEUP WORK POLICY:

Work missed due to documented excused absences will be accepted. Work missed due to unexcused absences will be discounted by 20% per day and accepted at the discretion of the instructor.

WITHDRAW POLICY:

Any student may withdraw from the class with a "W" up to and including the last day of classes.

TOPICS COVERED:

Motor Principles

Three Phase Power

Solid State Devices Used In Industrial Logic Circuits

Advanced Solid State Logic

Programmable Logic Controllers

Solid State Devices Used To Control Power

Solid state Devices Used For Firing Circuits

Photoelectronics, Lasers and Fiber Optics

Industrial Power Supplies, Inverters and Converters

Operational Amplifiers

Open Loop and Closed Loop Feedback Systems

Input Devices: Sensors, Transducers and Transmitters for Measurement

Output Devices: Amplifiers, Valves, Relays, VFD's, Stepper Motors, and Servomotor Drives.