



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Industrial Electronics
Course Number: EET232

Required Materials

Textbook(s): Industrial Electronics, James A. Rehg and Glenn J. Sartori, Publisher: Prentice Hall Copyright: 2006
ISBN-10: 0132064189, Format: Cloth; 880 pp, ISBN-13: 9780132064187, Published: 04/05/2005

Required Readings: None

Additional Materials: Slides, handouts & additional information available on Internet, example Industrial Electronics Handbook Fundamentals, Coffee, and a reference book for LabVIEW: NI.com
LabVIEW reference https://www.ni.com/en-us/shop/labview.html?cid=Paid_Search-7013q000001UgkyAAC-Consideration-GoogleSearch_102713974073&s_kwid=AL!6304!3!449107487676!b!!g!!!labview&gclid=EAlaIQobChMIImdDBnZS89QIV_xmtBh1fig7JEAAYASAAEgIQ2fD_BwE

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
1	Course and PLC Introduction
2	PLC Addressing Instructions, Operations & Functions, Relational Logical Operations
3	LabVIEW Basics & Virtual Instruments (potential PLC Quiz) Transient Analysis p 1-20 Step Response, Natural Responses
4	AC Circuit Analysis, Mutual Inductance, Autotransformer Frequency Response, Impedance
5	Laborview Editing & Debug Virtual Instruments & Sub VI
6	LabView Sub VI, Transistor Operation, FET & BJT, Sensors
7	LabVIEW Structure, For & While Loops, Timing OpAmps
8	LabVIEW Arrays & Functions, Clusters, Polymorphism
9	LabVIEW Analysis, Embedded Microcontrollers
10	Control of Continuous Processes, Industrial Robots
11	Mid-Term Test, Operation of Programming Industrial Robot
12	SCRs, TRIACs and Thyristors 2, Sensors
13	Sensors & 555 Pulse Generator
14	Fuel Cells & Battery Characteristics
15	Lab Completion & Final Exam
16	Finals Week