IDIS 300 — Industrial Electricity **Summer 2007**

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Office: Thomson 225
Office Hours: 9.35-10.30 AM

This syllabus is a tentative course schedule. The policies and dates presented here are subject to change at the discretion of the instructor.

Lecture: Fermier 303 MTWRF 8:00 AM – 9:35 AM
Laboratory: Thompson 115

MW 1:45 PM — 5:35 PM (Section 101)
TR 1:45 PM — 5:35 PM (Section 102)

Topics:
- Introduction to Voltage, Current and Resistance
- DC and AC circuit analysis, Transient Analysis
- Power Generation, Transmission and Industrial Wiring
- DC & AC Motors, Motor Starters and Controllers

Prerequisite: PHYS 202 or PHYS 208. Failure to have successfully completed the prerequisites will result in dismissal from this class.

Textbook: IDIS – 300 lecture notes from Notes-n-Quotes

Reference: Introductory Circuit Analysis – Robert L. Boylestad, 10th Edition, Prentice Hall.

Web Page: http://etidweb.tamu.edu/classes/idis300

Policy: You are expected to abide by the Aggie Honor Code. Academic dishonesty will not be tolerated and will be dealt with in accordance with Texas A&M University Regulations.

Course Format: The course will consist of readings from the text, lectures, labs, exams, quizzes, and guest speakers.

Grading: In this course, homework assignments, laboratory assignments, quizzes and exams will be used for evaluation of your performance.

Exams (2)	200
Final Exam	100
Quizzes	100
Laboratory	100
Total	500

Exams: There will be 2 regular exams plus a comprehensive final exam. The dates for the regular exams will be announced in class. The final exam is scheduled for July 2nd from 8:00 AM – 10:00 AM.

Homework: Homework will be assigned periodically. Homework will consist of suggested problems pertaining to the current lecture material. Homework will not be collected but it is suggested all problems be worked as practice for a quiz or test.

Quizzes: Quizzes will be given periodically to determine how well a concept is understood. No makeup quizzes will be given unless university approved excuse is provided.

Laboratory: The lab is not optional. Labs missed can only be made up with a University approved excuse. The time to make up a lab will be at your lab instructor's discretion. Missed labs, without a University approved excuse, will result in zero for that lab.

Students with Disabilities: The Americans with Disabilities Act (ADA) is a Federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, the legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe that you have a disability requiring accommodation, please contact the Department of Student Life, Services for Students with disabilities, in room 126 of the Koldus Building, or call 845-1637. In addition, please see the instructor within the first two weeks of classes.

Schedule:

Wk I – 5/29

Day 1- Current, Ohm's Law, Power, Simple Resistance

Day 2- KVL, Series Circuits, Voltage Divider, KCL
Day 3- Parallel and Series-Parallel Circuits, Opens/Shorts
Day 4- Review Problems, Quiz 1
Lab 1- Equipment Intro and Prototyping Board Connections
Lab 2 – DC Series Circuits

Wk II – 6/4

Day 1- Capacitors, Capacitor types, RC transients
Day 2- Inductor, Inductor Types, RL Transients
Day 3- AC Characteristics, AC Series Circuits
Day 4- Review Problems
Day 5- Exam I
Lab 3- Parallel and Series-Parallel Circuits
Lab 4- DC – AC Capacitive Circuits

Wk III – 6/11

Day 1- Exam I Review, AC Parallel Circuits
Day 2- AC Series-Parallel Circuits
Day 3- Magnetic Fields and Transformers
Day 4- Transformers
Day 5- Review Problems, Quiz 2
Lab 5- AC Analysis
Lab 6- Transformers

Wk IV – 6/18

Day 1- Power Generation and Transmission
Day 2- Residential Power
Day 3- Relays
Day 4- Review Problems
Day 5- Exam II
Lab 7- TBA
Lab 8- Residential

Wk V – 6/25

Day 1- Exam 2 Review,
Day 2- DC Motors (Shunt, Series, Compound)
Day 3- AC Motors (Synchronous, Induction)
Day 4- Review Session
Day 5- Open Topic
Lab 8- Relays
Lab 9- DC Motors

Final Exam

July 2nd 8:00 AM – 10:00 AM