

EE 251

Basic Electrical Engineering for Non Majors

Electrical and Computer Engineering
King Abdulaziz University

This Course ...



- Applications of Electrical Engineering in Different Systems..
- Concepts and Basics of Electricity and Electronics..
- Practical Engineering Applications..

Course Content



- History of Electricity
- Basic Concepts
 - electrons, battery, DC&AC, frequency, closed loop, current, RMS
- Components
 - R, C, L, fuses, breakers, relays, solenoids, diodes, transistors, ICs

Course Content



- Circuit Analysis
 - ohms law, dividers, KCL, KVL, complex impedance, current source, power
- Application Specific Circuits
 - generators, converters, protection, math, filters
- Power Generation and Distribution
 - DC machines, transformers, 3-phase systems

Course Content



- Sensors & Actuators
 - resistive, capacitive, inductive
 - Wheatstone bridge
 - special sensors
 - data acquisition

Class Format



- Active Class
 - Teams of 4-5 students
 - Daily Quiz (no makeup's)
 - Weekly Activities and Journals
 - In-Class Readings
- Term Projects
- Lab Experiments
- Simulation Sessions

Rules



- Quizzes
 - grades 0 or 10
 - be **ON-TIME**
 - absence = -2
 - no material on table
 - calculator & pencil
 - 2 decimal points with proper units
 - **cheating = -50% (BLACK LIST!!)**
 - adjust excuses immediately (no more than 4)
- Journals due every Sunday

Rules



- Activities
 - team ID + members IDs
 - nice fonts and presentation
- Project workload = 100%
 - members loads must be equal
 - more work = more grades
- Teamwork
 - any conflict should be stated from the beginning

Grades



• Quizzes	20	15%
• Journals	10	5%
• Activities	10	10%
• Labs	5	15%
• Exams	2	20%
• Project	2	15%
• <u>Final</u>	1	20%
• Bonus	0-3	100%+

Course Website



- Visit the course website

<http://enggkau.uomb.com/ee251>

- User account will be activated soon..

Sample Pages

EE 251 Introduction to EE for Non Major

Electrical & Computer Engineering Courses

home syllabus material survey profile signout

Welcome.. Learn how to analyze and design analog circuits

- Once you receive your login ID, the initial password will be your Computer number that must be changed.
- Choose a partner from the class and assign him from the profile. One of the group members is enough to do so.
- Once the lab sessions are assigned, you can choose the suitabel slot from your profile.

last updated: Se

you will need Acrobat Reader

Students' Login

Student ID:

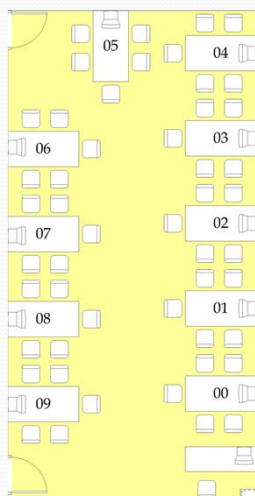
Password:

Login Reset

You Need To Login

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Students ID's



- EE251 Sections
 - A: S.M.. 11:00-12:20
 - B: S.M.. 01:00-02:20
 - C: .S.T. 08:00-09:20
 - D: .S.T. 09:30-10:50
 - E: .S.T. 01:00-02:20
- IDs in Teams (e.g. section C)
 - TCo: C01 - C05
 - TC1: C11 - C15
 - : :
 - TC9: C91 - C95

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