

**EELE 2305 – Electronics I
For Industrial Engineering's students
Course Syllabus**

“Energy is the power that drives every human being. It is not lost by exertion but maintained by it.” Germaine Greer, b. 1939

Instructor	Dr. Hala J. El-Khozondar Office: E204 Email: hkhonzondar@iugaza.edu Homepage: www.iugaza.edu/homes/hkhonzondar
Teaching Assistant	Eng. Ruba Salamah
Prerequisite:	Electric circuits I
Topics	<ul style="list-style-type: none">* Characteristics of PN junction, the diode.* Diode applications, half-wave & full-wave rectifiers.* Zener diode and its applications.* Bipolar junction transistor, construction, basic operation, characteristics and parameters, transistor as amplifier. Transistor bias circuits, DC operating point, base bias, emitter bias, voltage-divider bias, collector-feedback bias. Small ac signal analysis.* Field-effect transistor and Biasing, junction field-effect transistor (JFET), JFET characteristics, parameters, and biasing.* Thyristor, SCR, Diac and triac.* Phototransistor, LASCR* Basic OpAmp* Voltage regulators.
Textbook	Thomas L. Floyd, Electronic Devices, 7 th ed., Prentice-Hall, 2002.
Helpful site	http://wps.prenhall.com/chet_floyd_electronic_7
Reference	<ol style="list-style-type: none">1- Robert Boylestad and Louis Nashelsky, Electronic Devices and Circuit Theory, Sixth Edition, 1996.2- M. Kaufman and J. Wilson, Electronic Technology, Schaum's Outline series.3- Charles A. Schuler, Electronics Principles and Applications, 19794- Albert P. Malvino, Electronics Principles, 3rd ed., 1998.
Course Objectives	<ol style="list-style-type: none">1. To know the characteristics of electronic components such as diodes and transistors2. To be familiar with their applications3. To know how to distinguish between different electronic components and their functions4. To know how to analysis simple electronic circuits
Intended Learning Outcomes	<ol style="list-style-type: none">1. To be able to define the characteristics of electronic components such as diodes and transistors2. To be able to list the diodes' applications3. To distinguish between different electronic components and their

functions

4. To analysis simple electronic circuits

Assessment

Midterm Exam (35%)

Assignments (10%)

Quizzes (10%)

Final Exam (45%)

Homework Policy

Homework assignments will be given in a regular basis. Each assignment is to be returned within one week. *No delay will be accepted except with good excuse.*

Office Hours

As posted on the office's door, or by appointment.