

EE#407 Microwave Engineering  
Term 032----Spring 2004

Instructor: Dr. Essam Hassan 14/273 -- Tel 2370 -- email:ehassan@kfupm.edu.sa  
Text Book: Microwave Devices and Circuits by Samuel Liao, 3<sup>rd</sup> Edition

Course Outlines:

- 1- Transmission line theory.
- 2- Smith Chart
- 3- Microwave waveguides and resonators
- 4- Microwave Hybrid Circuits, connectors, isolators, ferrite phase shifters and couplers.
- 5- Bipolar and FET microwave transistors, the Gunn diode and the tunnel diode.
- 6- Microwave linear beam tubes (The Klystron, the reflex klystron and the TWT)
- 7- Microwave crossed field tubes( The Magnetron)
- 8- Microstrip lines and radiators.

Grading:

1- Homework	10%
2- Design and Presence	5%
3- Two majors	30%
4- Laboratory	20%
5- Final	35%

Date of Majors: Major I : Saturday March 27, 2004

Major II: Saturday May 8, 2004

Office hours: SMW: 11-11:50, UT: 2:10-3:00

Last day for dropping courses with grade of W is **TUESDAY** March 30, 2004