

**EC546 Microwave technology****COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
EC443 EC434	5	10	2	2	0	3

**COURSE AIM**

The course aims at introducing the student to the basic concepts of Microwaves hardware , Mixers and design of Microstrip antenna.

**COURSE WEEKLY CONTENTS**

- 1 Comprehensive knowledge of microwave hardware.
- 2 This includes passive and active components
- 3 The study extends to the design and analysis of all generating and amplifying devices and Microwave Mixers
- 4 Amplifying Devices
- 5 Mixers
- 6 Investigating the Microwave Integrated Circuits and Introducing the Nanotechnology, Top Down and Bottom up
- 7 7th week evaluation.
- 8 exploring the different measuring techniques used at such frequency range as well as the related measuring techniques
- 9 CST program design
- 10 How to implement CST design
- 11 Microwave Network
- 12 12th week evaluation
- 13 Spectrum Analysis of Microwave network.
- 14 Application of Microwave mixers
- 15 HFSS ,CST and ADS comparisons programs .

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
8 to 12		←	20	MARKS		→	20
13 to 15		←	10	MARKS		→	10
16 or 17	40 Final						40
<b>Total</b>	<b>Exams</b>	<b>Assign.</b>	<b>Quizzes</b>	<b>Reports</b>	<b>Present.</b>	<b>Lab.</b>	100

**REFERENCES**

**Textbook** Pozar 3<sup>rd</sup> edition