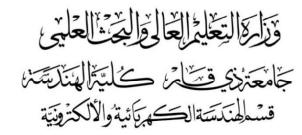
Ministry of Higher Education and Scinetific Research Thi-Qar University Collage of Engineering Electrical and Electronic Engineering Dept

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Course number and name	EE 3370: Power Electronics
Credits and contact hours	3 credits and 3 hours
Course coordinator	
Textbook	a. Power Electronics, Circuits, Devices and Applications, M.
	Rashid, 3 rd Edition. Prentice-Hall, 2003.
	b. Schematic Capture with Cadence PSpice, M. E. Herniter, 3 rd
	Edition.
	c. Spice for Power Electronics and Electric Power, M.
	Rashid,1st Edition.
	d. Elements of Power Electronics, P. T. Krien, 1st Edition,
	Oxford University Press, 1998.
	e. Introduction to Power Electronics D. W. Hart, 1st Edition,
	Prentice- Hall, 1998.
Course Information	a. Prerequisites: EE 3200 Electronics II, and EE 2300
	Electrical Machinery I
	b. Selective Elective
	- Energy conversion and the future trends, Switching
	semiconductor devices, diodes, transistors, thyristors, power
	considerations, and harmonics, Switch circuit analysis,
	Measures of quality
	– AC-DC rectifiers, diodes circuits, single-phase and three-
11 2011	phase, AC-DC controlled rectifiers, thyristor circuits, single-
Topics to be covered	phase and three-phase, natural and forced commutations
	- DC-AC inverters, single-phase and three-phase, PWM
ية والألكة ونية	inverters, DC-DC switch mode converters, buck, boost, buck-
	boost, cuk, chopper circuits, AC-AC converters,
	cycloconverters, single phase, three phase
	-Control of Converters, Applications, motor controls, power
	suppliers
	suppliers

Email: elec.dept@eng.utq.edu.iq Mob:07826194882