

## MEng, ELECTRICAL AND COMPUTER ENGINEERING

TABLE 1: MEng Fields and Courses (✕ Core Technical, ⊖ Professional Engineering, † Recommended Elective)

COMMUNICATIONS SYSTEMS AND DATA NETWORKING	POWER SYSTEMS ENGINEERING	SOFTWARE ENGINEERING	ROBOTICS AND CONTROL
<b>Core Technical Courses</b>	<b>Core Technical Courses</b>	<b>Core Technical Courses</b>	<b>Core Technical Courses</b>
✕ Applied Probability Theory (ECE 9305)	✕ Computer-Based Power System Protection (ECE 9401)	✕ Software Evolution (ECE 9602)	✕ Linear Systems and Modern Control Theory (ECE 9506)
✕ Random Signals, Adaptive Filtering (ECE 9203)	✕ Flexible AC Transmission Systems (FACTS) (ECE 9400)	✕ Advanced Topics in Software Engineering (ECE 9960)	✕ Robot Manipulators (ECE 9503)
✕ Performance Evaluation and Modeling of Computer Networks (ECE 9605)	✕ Power Electronics (ECE 9403)	✕ Optical Networks (ECE 9300)	✕ Human-Computer Interface Design (ECE 9200)
✕ Numerical Methods for Analysis and Design of High-Speed Electrical Circuits (ECE 9702)	✕ Modeling and Control of Power Electronic Converter Systems (ECE 9404)	✕ Soft Computing in Computer Vision (ECE 9601)	✕ Fault-Tolerant Control Systems (ECE 9500)
✕ Linear Systems and Modern Control Theory (ECE 9506)	✕ Control, Instrumentation and Electrical Systems in Nuclear Power Plants (ECE 9505)	✕ Advanced Topics in Software and Systems Design (ECE 9962)	✕ Non-Linear Control Theory (ECE 9502)
✕ Advanced Topics in Networking Engineering (ECE 9310)			✕ Advanced Digital Control Systems (ECE 9507)
✕ Wireless Communications: Design and Simulation (ECE 9308)			✕ Optimization Techniques (ECE 9504)
<b>Professional Engineering Courses (choose 2)</b>			
⊖ Engineering Planning and Project Management (CEE 9510)			
⊖ Engineering Communication (MME 9670)			
⊖ Intellectual Property for Engineers (ECE 9010)			
⊖ Risk Assessment and Management in Engineering Systems (CBE 9185)			
<b>Recommended Electives</b>	<b>Recommended Electives</b>	<b>Recommended Electives</b>	<b>Recommended Electives</b>
† Introduction to Digital Image Processing (ECE 9201)	† Theory and Application of Protective Relays (cross-listed) (ECE 9402, ECE 4456b)	† Human-Computer Interface Design (ECE 9200)	† Introduction to Digital Image Processing (ECE 9201)
† Optical Networks (ECE 9300)	† Power Electronics (u/g) (ECE 4457)	† Introduction to Digital Image Processing (ECE 9201)	† Applied Probability Theory I: Introduction to Random Processes (ECE 9305)
† Information Security (u/g) (SE 4472)	† Conventional, Renewable and Nuclear Energy (u/g) (ECE 4439)	† Advanced Medical Image Processing and Analysis (ECE 9202)	† Power Electronics (ECE 9403)
† Fault-Tolerant Control Systems (ECE 9500)	† Power Systems II (u/g) (ECE 4464)	† Embedded Real-Time Control Systems (ECE 9501)	† Random Signals, Adaptive and Kalman Filtering (ECE 9203)
† Non-Linear Control Theory (ECE 9502)	† Fault-Tolerant Control Systems (ECE 9500)	† Applied Probability Theory I: Introduction to Random Processes (ECE 9305)	† Control, Instrumentation and Electrical Systems in Nuclear Power Plants (ECE 9505)

		9305)	9505)
† CMOS VLSI Circuits and Technology (ECE 9703)	† Non-Linear Control Theory (ECE 9502)	† Wireless LANs and WANs (u/g) (SE 4410)	† Photonic and Optoelectronic Devices and Applications (ECE 9700)
† Very-Deep-Submicron Silicon Devices and Circuits (ECE 9704)	† Linear Systems and Modern Control Theory (ECE 9506)	† Software Verification and Validation (u/g) (SE 4452)	† Selected Topics: Advanced Robotic Systems (ECE 9940)
† Wireless Networks (u/g) (ES xxxx)	† Random Signals, Adaptive and Kalman Filtering (ECE 9203)	† Software Quality, Reliability and Maintenance (u/g) (SE 4453)	† CMOS VLSI Circuits and Technology (ECE 9703)
	† Advanced Digital Control Systems (ECE 9507)	† Information Security (u/g) (SE 4472)	† Very-Deep-Submicron Silicon Devices and Circuits (ECE 9704)
	† Electrostatic Theory and Engineering Applications (ECE 9100)		
	† Computational Electromagnetics (ECE 9101)		
	† Digital Signal Processing (u/g) (ECE 4429)		
<b>Non-ECE Electives</b>			<b>Non-ECE Electives</b>
† Computer Science Courses			† Two half courses from the MME Department
† Signal Processing from GeoScience			

**TABLE 2: Courses Offered** (‡ Core Technical, ⊖ Professional Engineering, † Recommended Elective)

The Department of Electrical and Computer Engineering courses offered in the upcoming semesters are listed in the table below. Please note that this list is tentative and is subject to change, as courses may be changed, added or removed, contingent on demand and other factors.

SUMMER 2010	FALL 2010	WINTER 2011	SUMMER 2011
<b>MEng Technical and Elective Courses</b>	<b>MEng Technical and Elective Courses</b>	<b>MEng Technical and Elective Courses</b>	<b>MEng Technical and Elective Courses</b>
Coming soon!	Coming soon!	Coming soon!	Coming soon!