

Curriculum

Classification		Subject No.	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
General Courses	Mandatory	CC010	Special Lecture on Leadership	1:0:0(0)	Fall	
		CC020	Ethics and Safety I	1AU	Spring/Fall	
	Choose 1	CC500	Scientific Writing	3:0:3(4)	Spring/Fall	
		CC510	Introduction to Computer Application	2:3:3(10)	Spring/Fall	
		CC511	Probability and Statistics	2:3:3(6)	Spring/Fall	
		CC512	Introduction to Materials and Engineering	3:0:3(3)	Spring/Fall	
		CC513	Engineering Economy and Cost Analysis	3:0:3(6)	Fall	
		CC522	Introduction to Instruments	2:3:3(8)	Fall	
		CC530	Entrepreneurship and Business Strategies	3:0:3(6)	Fall	
		CC531	Patent Analysis and Invention Disclosure	3:0:3(6)	Spring/Fall	
		CC532	Collaborative System Design and Engineering	4:0:4	Spring	
Interdisciplinary Elective Major Courses	Mandatory	STE505	Semiconductor Process Laboratory	2:6:3	Summer	
		STE605	Semiconductor Memory Devices and SoC Designs	3:0:3	Fall	MS Elective
		EE571	Advanced Electronic Circuits	3:0:3(6)	Spring	
		CS550	Software Engineering	3:0:3(4)	Spring	
	Elective	PH441	Introduction to Plasma Physics	3:0:3(4.5)	Fall	**
		PH611	Advanced Solid State Physics I	3:0:3(4.5)	Spring/Fal	
		PH613	Semiconductor Physics	3:0:3(4.5)	Spring/Fall	
		PH621	Advanced Wave Optics	3:0:3(4.5)	Spring/Fall	
		PH643	Applied Plasma Physics	3:0:3(4.5)	Spring/Fall	
		CH471	Polymer Chemistry	3:0:3(3)	Fall	**
		CH671	Organic Chemistry of High Polymers	3:0:3(3)	Spring or Fall	
		CH672	Specialty Polymer Chemistry	3:0:3(3)	Spring or Fall	
		CH674	Organic Electronic Materials	3:0:3(3)	Spring or Fall	
		CH675	Introduction to Lithography	3:0:3(3)	Spring or Fall	
		CH774	Special Topics in Polymer Chemistry II	3:0:3(3)	Spring or Fall	
		MS613	Solid State Physics	3:0:3(3)	Fall	*EE661
		MS635	Semiconductor Integrated Process Design	3:1:3(3)	Fall	
		MS642	Electronic Packaging Technology	3:0:3(2)	Spring	
		MS654	Surface Science	3:0:3(2)	Spring	
		MS684	Principles of Semiconductor Devices	3:0:3(3)	Spring	*EE561
		MS696	Special Topics in Advanced Materials I (Advanced semiconductor intergrated process design)	3:0:3(3)	Spring/Fall	*EE665
		EE421	Wireless Communication Systems	3:0:3(6)	Spring	**
		EE432	Digital Signal Processing	3:0:3(6)	Spring/Fall	**
		EE511	Computer Architecture	3:0:3(6)	Spring	
		EE535	Digital Image Processing	3:0:3(6)	Spring	
		EE561	Introduction to VLSI Devices	3:0:3(6)	Spring	*MS684
		EE566	MEMS in EE Perspective	3:0:3(6)	Fall	
		EE568	Introduction to Organic Electronics	3:0:3(6)	Spring	

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Interdisciplinary Elective Major Courses	Elective	EE573	Introduction to VLSI Systems	3:0:3(6)	Spring	
		EE641	Monolithic Microwave Integrated Circuits	3:0:3(6)	Fall	*MS613
		EE661	Solid State Physics	3:0:3(6)	Fall	
		EE663	High Frequency Electronic Devices	3:0:3(6)	Spring	*MS696
		EE665	CMOS Front-End Process Technology	3:0:3(6)	Spring	
		EE676	Analog Integrated Circuits	3:0:3(6)	Fall	
		EE678	Digital Integrated Circuits	3:0:3(6)	Fall	
		EE679	Analog and Mixed Signal Circuits for Communication	3:0:3(6)	Spring	
		EE762	Advanced MOS Device Physics	3:0:3(6)	Fall	
		EE766	Plasma Electronics	3:0:3(6)	Fall	
		EE772	Electronic Circuits for Green Energy	3:0:3(6)	Fall	
		CS453	Formal Software Verification Techniques	3:0:3(6)	Fall	**
		CS500	Design and Analysis of Algorithms	3:0:3(6)	Spring	
		CS510	Computer Architecture	3:0:3(6)	Spring	
		CS530	Operating System	3:0:3(6)	Spring/Fall	
		CS632	Embedded Operating Systems	3:0:3(6)	Fall	
		CBE473	Microelectronics Processes	3:0:3(3)	Spring/Fall	**
		CBE525	Molecular Electronics	3:0:3(3)	Spring/Fall	
		CBE581	Micro-Chemical and Biomolecular System	3:0:3(3)	Spring	
		CBE623	The Film Nanotechnology	3:0:3	Fall	
		CBE682	Organic Nano-Structured Materials	3:0:3(3)	Spring	
		CBE773	Recent Topics in Chemical&Biomolecular Engineering(Electroactive Polymeric Materials and Devices)	3:0:3(3)	Spring/Fall	
Research		STE998	MS Internship	0:0:1	Summer/Winter	
		STE999	Ph.D Internship	0:0:1	Summer/Winter	
		STE960	MS Thesis Research			
		STE980	Ph.D. Thesis Research			

※ Notes: 1) 400 and 500 level courses open to both undergraduate and graduate students

2) * stands for substitutable courses

※ Only one subject is counted when one takes 2 equivalent substitutable courses

ex) 1. 1 course of EE561(Introduction to VLSI Devices), MS684(Principles of Semiconductor Devices)

2. 1 course of EE665(CMOS Front-End Process Technology), MS696(Special Topics in Advanced Materials I(Advanced semiconductor integrated process design))

3. 1 course of EE661(Solid State Physics), MS613(Solid State Physics)