Table of Curriculum

Typically, students can take all the courses that are provided by the Dept. of Electrical Engineering, Physics, Chemistry, Materials Science & Engineering, Chemical & Biomolecular Engineering, and Division Mechanical Engineering. The following courses are highly recommended.

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
Mandatory	EE563	35.563	Display Engineering	3:0:3(6)	Spring	
Elective	EE535	35.535	Digital Image Processing	3:0:3(6)	Spring	
	EE555	35.555	Optical Electronics	3:0:3(6)	Spring	
	EE566	35.566	MEMS in EE Perspective	3:0:3(6)	Fall	
	EE568	35.568	Introduction to Organic Electronics	3:0:3(6)	Fall	
	EE571	35.571	Advanced Electronic Circuits	3:0:3(6)	Spring	
	EE647	35.647	Nano-Photonics	3:0:3(6)	Spring	
	EE666	35.666	Optoelectronic Semiconductor Devices and Their Applications	3:0:3(6)	Fall	
	EE676	35.676	Analog Integrated Circuits	3:0:3(6)	Fall	
	EE766	35.766	Plasma Electronics	3:0:3(6)	Fall	
	EE772	35.772	Electronic Circuits for Green Energy	3:0:3(6)	Fall	
	EE867	35.867	Special Topics in Physical Electronics	3:0:3(6)	Spring.Fall	
	PH441	20.441	Introduction to Plasma Physics	3:0:3(4.5)	Fall	
	PH503	20.503	Quantum Mechanics I	3:0:3(4.5)	Spring	
	PH507	20.507	Advanced Electrodynamics I	3:0:3(4.5)	Fall	
	PH508	20.508	Advanced Electrodynamics II	3:0:3(4.5)	Spring	
	PH611	20.611	Advanced Solid State Physics I	3:0:3(4.5)	Spring.Fall	
	PH613	20.613	Semiconductor Physics	3:0:3(4.5)	Spring.Fall	
	PH615	20.615	Introduction to Phase Transition	3:0:3(4.5)	Spring.Fall	
	PH621	20.621	Advanced Wave Optics	3:0:3(4.5)	Spring.Fall	
	PH622	20.622	Geometrical Optics	3:0:3(4.5)	Spring.Fall	
	PH643	20.643	Applied Plasma Physics	3:0:3(4.5)	Spring.Fall	
	PH721	20.721	Nonlinear Optics	3:0:3(4.5)	Spring.Fall	
	PH726	20.726	Semiconductor Optics	3:0:3(4.5)	Spring.Fall	
	CH542	23.542	Organometallic Chemistry	3:0:3(3)	Fall	
	CH607	23.607	Surface Chemistry	3:0:3(3)	Spring.Fall	
	CH671	23.671	Organic Chemistry of High Polymers	3:0:3(3)	Spring.Fall	
	CH674	23.674	Organic Electronic Materials	3:0:3(3)	Spring.Fall	
	CH675	23.675	Introduction to Lithography	3:0:3(3)	Spring.Fall	
	CBE473	39.473	Microelectronics Processes	3:0:3(3)	Spring.Fall	
	CBE525	39.525	Molecular Electronics	3:0:3(3)	Spring.Fall	
	CBE551	39.551	Polymer Rheology	3:0:3(3)	Spring.Fall	
	CBE552	39.552	Materials Engineering of Polymers	3:0:3(3)	Spring.Fall	

Classification	Course No.	Computer Code	Course Name	Lecture; Lab.; Credit (Assignment)	Semester	Note
	CBE554	39.554	Physical Principles of Polymers	3:0:3(3)	Fall	
	CBE572	39.572	Inorganic Materials Processing	3:0:3(4)	Spring.Fall	
	CBE631	39.631	Microfluidics	3:0:3(4)	Fall	
	CBE682	39.682	Organic Nano-Structured Materials	3:0:3(3)	Spring	
	MS536	34.536	Thin Film Processing	3:0:3(2)	Spring	
	MS544	34.544	Engineering of Soft Materials	3:0:3(3)	Fall	
	MS575	34.575	Non-Crystalline Materials	3:0:3(3)	Fall	
	MS613	34.613	Solid State Physics	3:0:3(3)	Fall	
	MS620	34.620	Optical Materials	3:0:3(3)	Spring	
	MS624	34.624	Optical Waves and Periodic Media	3:0:3(3)	Fall	
	MS697	34.697	Special Topics in Advanced Materials II	3:0:3(3)	Spring.Fall	
	MAE505	40.505	Sensor and Instrumentation Engineering	3:1:3(6)	Fall	
	MAE512	40.512	Advanced Heat Transfer	3:0:3(6)	Fall	
	MAE537	40.537	Optional design of Composite Structures	3:0:3(6)	Spring	
	MAE549	40.549	Reliability in Microsystems Packaging	3:1:3(6)	Fall	
	MAE574	40.574	Joining Engineering	3:1:3(6)	Fall	
	MAE582	40.582	Introduction to Microfabrication Technology	3:0:3(6)	Spring	
	MAE583	40.583	MEMS Design and Experimental Microfabrication	2:3:3(6)	Fall	
	MAE587	40.587	Optomechatronics	3:0:3(6)	Fall	
	MAE589	40.589	Applied Optics	3:1:3(6)	Spring	
	MAE592	40.592	Laser : Principles and Applications	3:0:3(6)	Fall	
	MAE633	40.633	Mechanical Behavior of Polymeric and Composite Materials	3:0:3(6)	Fall	
	MAE800	40.800	Special Topics in Mechanical Engineering	3:0:3(6)	Spring.Fall	

※Course classification, course title, and mutual recognition of credits may differ according to the effective year of the requirements.