

## Curriculum

Classification	Subject No.	Subject Name	Lecture:Lab.:Credit (Homework)	Semester	Remark
General Courses	CC010	Special Lecture on Leadership	1:0:0		
	CC500	Science Writing in English	3:0:3		
	CC510	Introduction to Computer Application	2:3:3		
	CC511	Probability and Statistics	2:3:3		
	CC512	Introduction to Materials and Engineering	3:0:3		
	CC513	Engineering Economy and Cost Analysis	3:0:3(6)		
	CC522	Introduction to Instruments	2:3:3		
	CC530	Enterpreneurship and Business Strategies	3:0:3		
Mandatory Major	NT511	Nano Science	3:0:3(3)	Spring	
	NT512	Nano Technology	3:0:3(3)	Fall	
Elective Major	PH603	Quantum Mechanics I	3:0:3(4.5)	Spring	
	PH604	Quantum Mechanics II	3:0:3(4.5)	Fall	
	PH611	Advanced Solid State Physics I	3:0:3(4.5)	Spring, Fall	
	PH612	Advanced Solid State Physics II	3:0:3(4.5)	Spring, Fall	
	PH711	Physics of Magnetism	3:0:3(4.5)	Spring, Fall	
	PH726	Semiconductor Optics	3:0:3(4.5)	Spring, Fall	
	BS465	Biotechnology II	3:0:3(2)	Spring	
	BS524	Advanced Molecular Biology	3:0:3(3)	Fall	
	BS583	Structural Biology	3:0:3(1)	Spring	
	CH502	Quantum Chemistry I	3:0:3(3)	Spring	
	CH604	Quantum Chemistry I	3:0:3(3)	Spring, Fall	
	CH607	Surface Chemistry	3:0:3(3)	Spring, Fall	
	MAE614	Statistical Thermodynamics	3:0:3(6)	Fall	
	MAE662	Precision Positioning System Design	3:0:3(6)	Spring	
	MAE693	Micro Electro Mechanical Systems	3:0:3(6)	Spring	
	MAE810	Special Topics in Thermal & Fluid Engineering	3:0:3(6)	Fall	
	BiS471	Bio-Inspired Electromechanical Sentuating Systems	3:0:3(4)	Spring	
	BiS472	Micro Heat & Mass Transport	3:0:3(4)	Fall	
	BiS522	Genomics and Proteomics	3:0:3(4)	Fall	
	BiS571	Bio Electro Mechanics	3:0:3(6)	Spring	
	BiS572	Microtransducers and Laboratory	3:0:3(6)	Fall	
	BiS623	Bioelectronic Devices	3:0:3(3)	Spring, Fall	
	BiS671	Nanomaterial Process and Behavior	3:0:3(4)	Spring	
	BiS672	Nano Electro Mechanical Systems	3:0:3(4)	Fall	
	BiS771	Nanobiotechnology	3:0:3(4)	Spring	
	BiS772	Nano / Micro-machining Process Laboratory	2:3:3(4)	Fall	
	CBE455	Nanochemical Technology	3:0:3(3)	Spring	
	CBE512	Introduction to Catalysis Engineering	3:0:3(4)	Spring, Fall	
	CBE522	Introduction to Interfacial Engineering	3:0:3(3)	Spring	
	CBE525	Molecular Electronics	3:0:3(3)	Spring, Fall	
	CBE612	Design of Catalysis	3:0:3(4)	Spring, Fall	
	CBE632	Colloids and Surface Chemistry	3:0:3(3)	Fall	
	CBE682	Organic Nano-Structured Materials	3:0:3(3)	Fall	
	CBE712	Surface Phenomena	3:0:3(3)	Spring, Fall	
	NQE489	Special Topics in Nuclear and Quantum Engineering I	3:0:3(6)	Spring	
	NQE513	Neutron and Quantum Particle Transport Theory and Computation	3:0:3(6)	Spring	
	NQE524	Simulation of Nuclear and Quantum System	3:0:3(6)	Winter	
	NQE526	Quantum and Micro Energy Transport	3:0:3(6)	Fall	
	NQE571	NMR Engineering	3:0:3(6)	Spring, Fall	
	NQE572	Neutron Optics	3:0:3(6)	Spring, Fall	
	MS523	Electron Microscopy and Experiment	3:0:3(3)	Spring	
	MS525	Introduction to Quantum Mechanics	3:0:3(3)	Fall	
	MS536	Thin Film Processes	3:0:3(2)	Spring	
	MS654	Surface Science	3:0:3(2)	Spring	
MS670	Sol-Gel Nano Materials and Process	3:0:3(2)	Fall		
MS671	Frist-Principles Modeling of Materials	3:0:3(2)	Spring, Fall		
MS672	Special Topics on Nano Material Technology	3:0:3(2)	Spring, Fall		

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Elective Major	MS685	Physics of Magnetism and Magnetic Materials	3:0:3(2)	Fall	
	EE461	Semiconductor Devices	3:0:3(6)	Spring	
	EE561	Physical Electronics	3:0:3(6)	Spring	
	EE564	Integrated Circuit Process	3:0:3(6)	Fall	
	EE661	Solid State Physics	3:0:3(6)	Spring	
	EE662	Quantum Electronics	3:0:3(6)	Fall	
	EE663	High Frequency Electronic Devices	3:0:3(6)	Spring	
	EE762	Advanced MOS Device Physics	3:0:3(6)	Spring	
	NT591	Special Topics of Nano Technology I	2:0:2(2)	Spring, Fall	
	NT592	Special Topics of Nano Technology II	2:0:2(2)	Spring, Fall	
Research	NT960	M.S. Thesis			
	NT966	M.S. Seminar	1:0:1		
	NT980	Ph.D. Thesis			
	NT986	Ph.D. Seminar	1:0:1		