

Recommended Course Plan: Electrical Engineering

Regular Study Plan

Year 1 Fall		
ENG202	Advanced Academic English	3
PHY201	Electricity & Magnetism	3
MTH201	Calculus III	3
MTH207	Discrete Structures I	3
GNE212	Engineering Mechanics	3
COE201	Computer Proficiency	1
		16

Spring		
COE211	Computer Programming	4
—	Liberal Arts & Sciences Elective	3
—	Liberal Arts & Sciences Elective	3
MTH304	Differential Equations	3
MTH206	Calculus IV	3
		16

Summer		
—	Liberal Arts & Sciences Elective	3
LAS212	Communication in the Age of AI	3
		6

Year 2 Fall		
MEE211	Engineering Graphics	1
COE321	Logic Design	3
—	Liberal Arts & Sciences Elective	3
ELE391	Mathematical Methods in Electrical Engineering	3
ELE300	Electric Circuits	3
ELE303	Electrical Circuits Lab	1
GNE331	Probability and Statistics	3
		17

Spring		
ELE401	Electronics I	3
ELE402	Electronics I Lab	1
ELE411	Electromagnetic Fields	3
ELE430	Signals and Systems	3
COE323	Microprocessors	3
----	Free Elective	1
COE322	Logic Design Lab	1
		15

Summer		
GNE303	Engineering Ethics	2
GNE301	Professional Communication	2
INE320	Engineering Economy	3
		7

Year 3 Fall		
—	ELE Elective 1	3
ELE413	Electromagnetic Waves	3
ELE442	Control Systems	3
ELE443	Control Systems Lab	1
ELE493	Professionalism in Engineering	3
ELE537	Communication Systems	3
COE324	Microprocessors Lab	1
		17

Spring		
COE546	Machine Learning	3
ELE420	Electromechanics	3
ELE538	Noise in Communication Systems	3
ELE540	Communication Systems Lab	1
—	ELE Elective 2	3
—	ELE Elective 3	3
		16

Summer		
ELE498	Professional Experience	6
		6

Year 4 Fall

—	ELE Elective 4	3
ELE595	Capstone Design Project I	3
ELE501	Microelectronics	3
ELE422	Power Systems	3
—	ECE Elective 1	3
COE521	Embedded Systems	3
		18

Spring

ELE423	Electric Machines Lab	1
—	ECE Elective 2	3
ELE593	ELE Application	3
—	ECE Elective 3	3
GNE—	SOE Signature Course	3
ELE596	Capstone Design Project II	3
		16

Total

150

Study Plan with Extended Experiential Learning

Year 1 Fall

ENG202	Advanced Academic English	3
PHY201	Electricity & Magnetism	3
MTH201	Calculus III	3
MTH207	Discrete Structures I	3
GNE212	Engineering Mechanics	3
COE201	Computer Proficiency	1
		16

Spring

COE211	Computer Programming	4
—	Liberal Arts & Sciences Elective	3
—	Liberal Arts & Sciences Elective	3
MTH304	Differential Equations	3
MTH206	Calculus IV	3
		16

Summer

—	Liberal Arts & Sciences Elective	3
LAS212	Communication in the Age of AI	3
		6

Year 2 Fall

MEE211	Engineering Graphics	1
COE321	Logic Design	3
—	Liberal Arts & Sciences Elective	3
ELE391	Mathematical Methods in Electrical Engineering	3
ELE300	Electric Circuits	3
ELE303	Electrical Circuits Lab	1
GNE331	Probability and Statistics	3
		17

Spring

ELE401	Electronics I	3
ELE402	Electronics I Lab	1
ELE411	Electromagnetic Fields	3
ELE430	Signals and Systems	3
COE323	Microprocessors	3
----	Free Elective	1
COE322	Logic Design Lab	1
		15

Summer

GNE303	Engineering Ethics	2
GNE301	Professional Communication	2
INE320	Engineering Economy	3
		7

Year 3 Fall			Spring			Summer		
—	ELE Elective 1	3	COE546	Machine Learning	3	ELE498	Professional Experience	6
ELE413	Electromagnetic Waves	3	ELE420	Electromechanics	3			
ELE442	Control Systems	3	ELE538	Noise in Communication Systems	3			
ELE443	Control Systems Lab	1	ELE540	Communication Systems Lab	1			
ELE493	Professionalism in Engineering	3	—	ELE Elective 2	3			
ELE537	Communication Systems	3	—	ELE Elective 3	3			
COE324	Microprocessors Lab	1						
		17			16			6

Year 4 Fall			Spring		
Extended Experiential Learning			ELE423	Electric Machines Lab	1
			—	ECE Elective 2	3
			ELE593	ELE Application	3
			—	ECE Elective 3	3
			GNE—	SOE Signature Course	3
			ELE595	Capstone Design Project I	3
					16

Year 5 Fall		
—	ELE Elective 4	3
ELE596	Capstone Design Project II	3
ELE501	Microelectronics	3
ELE422	Power Systems	3
—	ECE Elective 1	3
COE521	Embedded Systems	3
		18