

Recommended Course Plan: Mechatronics Engineering

Regular Study Plan

Year 1 Fall			Spring			Summer		
ENG202	Advanced Academic English	3	COE211	Computer Programming	4	—	Liberal Arts & Sciences Elective	3
PHY201	Electricity & Magnetism	3	—	Liberal Arts & Sciences Elective	3	GNE331	Probability and Statistics	3
MTH201	Calculus III	3	MTH301	Linear Algebra	3			
MTH207	Discrete Structures I	3	MTH304	Differential Equations	3			
CIE200	Statics	3	MTH206	Calculus IV	3			
COE201	Computer Proficiency	1	MEE211	Engineering Graphics	1			
		16			17			6

Year 2 Fall			Spring			Summer		
MEE321	Material Properties & Processes	3	ELE401	Electronics I	3	—	Liberal Arts & Sciences Elective	3
COE321	Logic Design	3	ELE402	Electronics I Lab	1	LAS212	Communication in the Age of AI	3
GNE301	Professional Communication	2	COE313	Data Structures lab	1	INE320	Engineering Economy	3
COE312	Data Structures	3	ELE430	Signals and Systems	3			
ELE300	Electric Circuits	3	COE323	Microprocessors	3			
ELE303	Electrical Circuits Lab	1	MEE320	Strength of Materials	3			
			COE322	Logic Design Lab	1			
			MEE241	Dynamics	3			
		15			18			9

Year 3 Fall			Spring			Summer		
MCE410	Mechatronics System Design I	3	MCE411	Mechatronics System Design II	3	MCE498	Professional Experience	6
ELE442	Control Systems	3	MCE301	Electromechanics	3			
ELE443	Control Systems Lab	1	—	Technical Elective 1	3			
COE324	Microprocessors Lab	1	MEE341	Kinematics of Machines	3			
GNE303	Engineering Ethics	2	COE546	Machine Learning	3			
MEE311	Fluid Mechanics	3						
MEE312	Fluid Mechanics Lab	1						
MEE351	Computer Aided Design	3						
		17			15			6

Year 4 Fall

—	Technical Elective 2	3
—	Technical Elective 3	3
MCE591	Capstone Design I	3
ELE501	Microelectronics	3
MEE301	Thermodynamics	3
		15

Spring

—	Technical Elective 4	3
—	Liberal Arts & Sciences Elective	3
GNExxx	SOE Signature Course	3
MCE592	Capstone Design II	3
MEE422	Mechanical Engineering Design	3
MCE302	Electric Machines Lab	1
		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
CIE200	Statics	3
COE201	Computer Proficiency	1
		16

Spring

COE211	Computer Programming	4
—	Liberal Arts & Sciences Elective	3
MTH301	Linear Algebra	3
MTH304	Differential Equations	3
MTH206	Calculus IV	3
MEE211	Engineering Graphics	1
		17

Summer

—	Liberal Arts & Sciences Elective	3
GNE331	Probability and Statistics	3
		6

Year 2 Fall

MEE321	Material Properties & Processes	3
COE321	Logic Design	3
GNE301	Professional Communication	2
COE312	Data Structures	3
ELE300	Electric Circuits	3
ELE303	Electrical Circuits Lab	1

Spring

ELE401	Electronics I	3
ELE402	Electronics I Lab	1
COE313	Data Structures lab	1
ELE430	Signals and Systems	3
COE323	Microprocessors	3
MEE320	Strength of Materials	3

Summer

—	Liberal Arts & Sciences Elective	3
LAS212	Communication in the Age of AI	3
INE320	Engineering Economy	3

		15

COE322	Logic Design Lab	1
MEE241	Dynamics	3
		18

		9

Year 3 Fall

MCE410	Mechatronics System Design I	3
ELE442	Control Systems	3
ELE443	Control Systems Lab	1
COE324	Microprocessors Lab	1
GNE303	Engineering Ethics	2
MEE311	Fluid Mechanics	3
MEE312	Fluid Mechanics Lab	1
MEE351	Computer Aided Design	3
		17

Spring

MCE411	Mechatronics System Design II	3
MCE301	Electromechanics	3
—	Technical Elective 1	3
MEE341	Kinematics of Machines	3
COE546	Machine Learning	3
		15

Summer

MCE498	Professional Experience	6
		6

Year 4 Fall

Extended Experiential Learning		
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Spring

—	Technical Elective 4	3
—	Liberal Arts & Sciences Elective	3
GNExxx	SOE Signature Course	3
MCE591	Capstone Design I	3
MEE422	Mechanical Engineering Design	3
MCE302	Electric Machines Lab	1
		16

Year 5 Fall

—	Technical Elective 2	3
—	Technical Elective 3	3
MCE592	Capstone Design II	3
ELE501	Microelectronics	3
MEE301	Thermodynamics	3
		15