

B.S. in Mechanical Engineering

Robotics Option

Freshman Year

		Credits
Fall		
CHM 113	General Chemistry for Engineering	3
COM 122	English Composition	3
	Humanities or Social Science Lower-Level or Upper-Level Elective	3
EGR 101	Introduction to Engineering	2
MA 241	Calculus and Analytical Geometry I	4
UNIV 101	College Success	(1)
Credits Subtotal		15.0
Spring		
CEC 220	Digital Circuit Design	3
CEC 222	Digital Circuit Design Laboratory	1
EGR 201	Computer Aided Design of Mechanical Systems	3
MA 242	Calculus and Analytical Geometry II	4
ME 200	Machine Shop Laboratory	1
PS 161	Physics I & II for Engineers	4
Credits Subtotal		16.0

Sophomore Year

Fall		
COM 221	Technical Report Writing (Must Earn a C or better to pass COM 221)	3
EGR 115	Introduction to Computing for Engineers	3
ES 201	Statics	3
MA 243	Calculus and Analytical Geometry III	4
PS 250	Physics for Engineers III	3
PS 253	Physics Laboratory for Engineers	1
Credits Subtotal		17.0
Spring		
CS 125	Computer Science I	4
EE 335	Electrical Engineering I	2
EE 336	Electrical Engineering I Laboratory	1
ES 204	Dynamics	3
MA 335	Introduction to Linear and Abstract Algebra	3
MA 345	Differential Equations and Matrix Methods	4
Credits Subtotal		17.0

Junior Year

Fall		
ES 202	Solid Mechanics	3
ES 208	Thermodynamics	3
	Humanities Lower-Level Elective	3
ME 302	Introduction to Robotics I	3
ME 302L	Introduction to Robotics I Laboratory	1
ME 404	Mechatronics	3
ME 404L	Mechatronics Laboratory	1
Credits Subtotal		17.0
Spring		
AE 430	Control System Analysis and Design	3
EC 225	Engineering Economics	3
ES 206	Fluid Mechanics	3
ES 320	Engineering Materials Science	2
ES 321	Engineering Materials Science Laboratory	1

ME 406	Robotics II	3
ME 406L	Robotics II Laboratory	1
Credits Subtotal		16.0
Senior Year		
Fall		
COM 420	Advanced Technical Communication I	1
ES 403	Heat Transfer	3
ME 304	Introduction to Machine Design	3
ME 305	Machine Design Laboratory	1
ME 407	Preliminary Design for Robotic Systems with Laboratory	4
	Technical Elective	3
Credits Subtotal		15.0
Spring		
COM 430	Advanced Technical Communication II	2
HU 330	Values and Ethics (or HU/SS Upper-Level Study Abroad)	3
	or HU 335 Technology and Modern Civilization	
ME 400	Mechanical Vibrations	3
ME 420	Detail Design of Robotic Systems with Laboratory	4
	Technical Elective	3
Credits Subtotal		15.0
Credits Total:		128.0