

Minor in Mechatronics
Course List
(Applicable for students registered in or after 2019-1 fall semester)

Compulsory Courses			
Group	Code	Title	Credit
1	ME 220	Introduction to Mechatronics	(1-0) 1
2	EE 281	Electrical Circuits	(2-2) 3
(or)	EE 201	Circuit Theory I	(4-0) 4
3	ME 205	Statics	(3-0) 3
(or)	CE 221	Engineering Mechanics I	(3-0) 3
(or)	AE 261	Statics	(3-0) 3
4	CENG 229	C Programming	(3-2) 4
(or)	CENG 240	Programming with Python ...	(2-2) 3
5	ME 462	Mechatronic Design	(2-2) 3

Students must choose minimum 4 courses (other than the ones they took in their majors) among the ones listed below. At least two of the 4 courses must be of 4xx coded.

Elective Courses		
Code	Title	Credit
ME 301	Theory of Machines I	(3-0) 3
ME 302	Theory of Machines II	(3-0) 3
ME 307	Machine Elements I	(3-0) 3
ME 308	Machine Elements II	(3-0) 3
ME 208	Dynamics	(3-0) 3
ME 206	Strength of Materials	(3-0) 3
ME 202	Manufacturing Technologies	(3-0) 3
ME 413	Introduction to Finite Element Analysis	(3-0) 3
ME 418	Dynamics of Machinery	(3-0) 3
ME 429	Mechanical Vibrations	(3-0) 3
ME 431	Kinematic Synthesis of Mechanisms	(3-0) 3
ME 432	Acoustics and Noise Control Engineering	(3-0) 3
ME 440	Numerical Machine Control	(3-0) 3
ME 442	Design of Control Systems	(3-0) 3
ME 461	Mechatronic Components and Instrumentation	(1-4) 3
ME 493	Introduction to Smart Structures and Materials	(3-0) 3
ME 448	Fundamentals of Micro Electromechanical Systems and Microsystems	(3-0) 3
EE 202	Circuit Theory II	(4-0) 4
EE 230	Probability	(3-0) 3
EE 301	Signals and Systems I	(3-0) 3
EE 361	Electromechanical Energy Conversion I	(3-2) 4
EE 302	Feedback Systems	(3-0) 3
EE 348	Introduction to Logic Design	(3-0) 3
EE 402	Discrete-Time Systems	(3-0) 3
EE 404	Nonlinear Control Systems	(3-0) 3
EE 406	Laboratory of Feedback Control Systems	(1-4) 3
EE 430	Discrete-time Signal Processing	(3-0) 3
EE 447	Introduction to Microprocessors	(3-2) 4
EE 499	Vector Space Methods in Signal Processing	(3-0) 3
EE 498	Control System Design and Simulation	(3-0) 3
CENG 213	Data Structures	(3-2) 4
CENG 222	Statistics	(3-0) 3
CENG 232	Logic Design	(3-2) 4
CENG 242	Programming Languages	(3-2) 4
CENG 280	Formal Languages	(3-0) 3
CENG 301	Algorithms and Data Structures	(3-0) 3
CENG 334	Operating Systems	(3-0) 3
CENG 336	Introduction to Embedded Systems Development	(2-2) 3
CENG 384	Signals and Systems for Computer Engineers	(3-0) 3
CENG 424	Logic for Computer Sciences	(3-0) 3
CENG 443	Introduction to Object Oriented Programming and Systems	(3-0) 3
CENG 460	Introduction to Robotics	(3-0) 3
CENG 462	Introduction to Artificial Intelligence	(3-0) 3
CENG 466	Fundamental Image Processing Techniques	(3-0) 3
CENG 499	Introduction to Machine Learning	(3-0) 3