(Starting Sept. 2022)   MECHANICAL ENGINEERING PROGR (Mechatronics) – 173 ch   (rev. Aug.15, 2022)

Classification	1 Fall '22	2 Winter '23	3 Su'23	4 Fall '23	5 Winter '24	6 Su'24	7 Fall '24	8 Winter '25	9 Su'25	10 Fall '25	11 Winter '26
Math, Stats & Numerical	MATH 1003 (4C)3 Intro to Calc I MATH 1503 (4C)3 Intro to Lin Alg	MATH 1013 (4C)3 Intro to Calc II		MATH 2513 (4C)4 Calc for Eng	MATH3503 (3C1T)3 Diffl Eqns for Eng STAT 2593 (3C)3 Prob &Statist		CS 3113 / MATH 3413 (3C)3 Numerical .Methods				
CS, Chem, Physics & ECE	CS 1003 (3C)3 Prog & Prob Solv for Eng PHYS 1081 (3C)3 Intro Physics for EnG	ECE1813 (3C1T)3 Elec & Magnet CHEM 1982 (3C1T)3 Gen'l Chemistry		ECE 2711 (3C,1T)3 Electric Circuits ECE 2214 (3C,1T)3 Digital Logic Des			ECE 3111 (3C,1T)3 Electronics I	ME 4673 (3C)3 Introduction to Mechatronics		ME 4683 (3C)3 Mechatronics Applications ECE 3612 (3C,1T)3 Electric Machines & Design	
Applied Mechanics		ENGG 1082 (3C,1T*)3 Mechanics for Engineers		ME 2111 (3C,1T)3 Mech of Mat. I ME 2003 (3C,1T)3 Dynamics for Eng	ME2122 (3C2T*)3 Mech of Mat. II ME2143 (3C2T*)3 Kinematics & Dyn.		ME 3613 (3C,1T)3 System Dynamics	ME 3623 (3C,1T)3 Auto. Controls I ME 4613 (3C) Mech Vibration			
Thermo & Heat Transfer					ME 2413 (3C,1T)3 Thermodynamics			ME 3433 (3C,1T)3 Heat Transfer		ME 4421 (2C,1T)2 Applied Thermo	
Fluid Mechanics							ME 3511 (3C)3 Fluid Mechanics	ME 3522 (2C,1T)2 Applied Fluid Mech			
Mat'rls and Manufacturing				CHE 2501 (3C,1T)3 Materials Science			ME3222 (3C1T*)3 Manufacturing Eng. I			ME 4283 (3C)3 Manufact. Eng. II	
Laboratories (mostly part of courses)	Intr. Physics for Eng. Lab (3L)2 Programming Lab (3L*)1 Design & Prob. Solv. Lab (2L)1 Tech. Commun. Lab (3L)1	CAD Lab (3L)2 Elec and Mag. Lab (2L)1 CHEM 1987*(3L)2 Chemistry Lab Mech for Eng Lab (3L*)1	Summer Term	CHE 2506* (3L*)1 Mat'rl Science Lab Electric Circuits Laboratory (3L*)1 Dynamics Laboratory (2L)1 ECE 2215 (2L) 1 Dig. Log. Des. Lab	ME 2415* (3L*)1 Thermodynamics Lab	Summer Term	ME 3515* (3L*)1 Fluid Mech Lab Sys Dynamics Lab (1L*)1 Manuf. Eng. I Lab (2L*)1 Electronics I Lab (3L*)1	ME 3435* (3L*)1 Heat Transfer Lab Auto Controls Lab (1L*)1 Vibration Lab (3L*)1 Mechatronics Lab (2L)1	Summer Term	Manuf. II Lab (3L*)1 Mechatronics Lab (2L)1 Electric Machines Lab (3L*)1	
Design and Synthesis	ENGG 1015 (1C)1 Intro. Design & Problem Solving				ME 2352 (3C,2L)4 Design Optimization		ME3341(3C,2T*)3 Machine Design			ME 4424*(1C,2L)2 Sustainable Energy Systems Design	
Design Projects		ME 1312 (3C)3 CAD			ME 2145* (2L*)1 Kin Dyn Des Proj ME 2125* (2L*)1 Mech. of Materials Design Project		ME 3345* (4L*)2 Machine Design Proj	ME 3524*(1C,1L)2 Fluid Syst. & Design		ENGG 4000 (1C,2T,4L)4 Senior Design Project	ENGG 4000 (1C,2T,4L)4 Senior Design Project
Complimentary Studies	ENGG 1001 (1C)0 Eng. Pract Lec ENGG 1003 (2C)3 Tech. Commun.							One Compl. Studies Elective (3 C)		ME 4861(1C)1 Mech Health and Safety	ENGG 4013 (3C)3 Law and Ethics ME 3232 / CE 3963 (3C)3 Eng. Economics Two Compl. Studies Elec** (6C)6
Technical Electives											One Mechatronics Elective (3 C) 3
Credit Hours	21 (17C, 0T, 9.5L)	20(15C,2.5T,9.5L)		23 (19C, 5T, 7L)	22(18C, 5T, 5.5L)		22 (18C, 3.5T,7L)	21 (18C, 3T, 6L)		20 (14C, 3T, 11L)	19 (16C, 2T, 4L)

Laboratory or project course co-requisite with a lecture course.   L - labs on alternate weeks

NOTES:(1) Students must take at least 9 ch of technical electives (3 courses), including at least 6 ch (2 courses) of ME technical electives.
(2) Students must take at least 9 ch of complementary studies electives; one of which has to be either HIST3925 or SOCI2534, at least 3 ch must be "humanities" – see regulations for definition.
(3) All courses must be passed with a grade of at least a **C**.
(4) Some courses are available online and may be taken during May-August: e.g. CE 3963, ENGG 4013.