

YEAR TERM		MAJOR					GENERAL EDUCATION			TOTAL CR.
YEAR 1	FALL	ETCS 105 CAREER DISCOVERY 2			MATH 170 CALCULUS I Pre-Req: Requires Placement, MATH 141 or MATH 136 4	PHYS 170 GENERAL PHYSICS I Co-Req: MATH 170 4	CHEM 107 ENGINEERING CHEMISTRY I Pre-Req: MATH 135 or MATH 141 4	FCWR 101/111 FOUND. OF COLLEGE COMPOSITION Pre-Req: Requires Placement 3		17
	SPRING	MENG 201 ENGINEERING PROGRAMMING Co-Req: MATH 161 or MATH 170 3	MENG 105 ENGINEERING GRAPHICS 1		MATH 180 CALCULUS II Pre-Req: MATH 170 4	PHYS 180 GENERAL PHYSICS II Pre-Req: PHYS 170 Co-Req: MATH 180 4		FCWR 151/161 FOUNDATIONS OF RESEARCH WRITING Pre-Req: FCWR 101/111 3		15
YEAR 2	FALL		MENG 211 ENGINEERING MECHANICS I (Statics) Pre-Req: PHYS 170, MATH 180 3		MATH 260 CALCULUS III Pre-Req: MATH 180 4	PHYS 225 INTRODUCTION OF MODERN PHYSICS Pre-Req: PHYS 180 3		FCWR 304 COMMUNICATION FOR TECHNICAL PROFESSIONS Pre-Req: FCWR 151/161 3	DATA 101 MAKING SENSE OF A DATA-ORIENTED SOCIETY 3	16
	SPRING	MENG 221 STRENGTH OF MATERIALS Pre-Req: MENG 211 & MATH 180 3	MENG 212 ENGINEERING MECHANICS II Pre-Req: MENG 211 Co-Req: MATH 260 3		MATH 320 DIFFERENTIAL EQUATIONS Pre-Req: MATH 260 3	MENG 240 THERMODYNAMICS Pre-Req: PHYS 225, CHEM 107 3		LIBERAL ARTS ELECTIVE 3		15
YEAR 3	FALL	MENG 310 INTRODUCTION TO MATERIAL SCIENCE Pre-Req: CHEM 107 or CHEM 110 3	MENG 340 FLUID MECHANICS Pre-Req: MENG 240 3	MENG 321 INTRO TO COMPUTER AIDED DESIGN Pre-Req: MENG 105 3	EENG 211 ELECTRICAL CIRCUITS Pre-Req: MATH 170 and PHYS 170 Co-Req: MATH 180 and PHYS 180 3	IENG 240 ENGINEERING ECONOMICS Pre-Req: MATH 136 or MATH 141 or higher 3				15
	SPRING	MENG 420 MODERN MANUFACTURING Pre-Req: MENG 310 and MENG 321 4	MENG 370 MACHINE DESIGN Pre-Req: MENG 221 3	MENG 324 VIBRATIONS AND SYSTEM Pre-Req: MENG 201 or CSCI 125, MENG 212, and MATH 320 3	MENG 349 HEAT TRANSFER Pre-Req: MENG 240 and MATH 320 3	EENG 275 ELECTRONICS LAB Pre-Req: EENG 211 or EENG 212 and FCWR 101 1	STEM ELECTIVE MATH/PHYS 300 or 400 level or CoECS 300 level or above 3			17
YEAR 4	FALL	MENG 438 ENGINEERING ANALYSIS Pre-Req: MENG 201 and MATH 320 3	MENG 320 OR 343 Pre-Req: MENG 310 and MENG 221 or MENG 340 and MENG 240 1		MENG 450 MECHATRONIC SYSTEM DESIGN Pre-Req: MENG 324, MENG 370, EENG 211 or EENG 212 4	IENG 245 STATISTICAL DESIGN I Pre-Req: MATH 161 or MATH 170 3		IENG 400 TECHNOLOGY AND GLOBAL ISSUES Limited to Juniors & Seniors 3	ICXX 3XX* SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161 3	17
	SPRING	MENG 470 SENIOR M.E. DESIGN Pre-Req: MENG 324, MENG 340, MENG 370, and MENG 349 4		MECHANICAL ENGINEERING ELECTIVE*** 3	MENG 460 THERMAL SYSTEM DESIGN Pre-Req: MENG 340, MENG 349 4			ICXX 3XX* SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161 3	ICXX 3XX* SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161 3	17

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*Of the three required ICXX seminar course options (ICBS, ICLT, ICPH, ICSS), students must take three seminar courses from three different areas of study.

(Rev 11/23)

Course names, numbers and/or pre-requisites subject to change.

***Mechanical Engineering Elective Options: Select 3 credits from non-required AENG, IENG, MENG 300 level or above, or graduate MENG courses with Chairperson Approval.

Co-Op Option: ETCS 300 (Foundations for Success in CoECS Co-Op) and ETCS 301 (CoECS Co-Op)

[Note] Students must receive 'C-' or higher in all required Math, Science, ETCS, EENG, MENG & CSCI courses.