

YEAR TERM		MAJOR					CORE		TOTAL CR.	
YEAR 1	FALL	ETCS 105 CAREER DISCOVERY 2			MATH 170 CALCULUS I 4 Pre-Req: Placement Exam, MATH 141 or MATH 136	PHYS 170 GENERAL PHYSICS I 4 Co-Req: MATH 170	CHEM 107 ENGINEERING CHEMISTRY I 4 Pre-Req: MATH 135 or MATH 141	FCWR 101* FOUNDATIONS OF COLLEGE COMPOSITION 3 Pre-Req: Placement or WRIT 100	17	
	SPRING		MENG 105 ENGINEERING GRAPHICS 1	MENG 201 ENGINEERING PROGRAMMING 3 Co-Req: MATH 161 or MATH 170	MATH 180 CALCULUS II 4 Pre-Req: MATH 170	PHYS 180 GENERAL PHYSICS II 4 Pre-Req: PHYS 170 Co-Req: MATH 180		FCWR 151* FOUNDATIONS OF RESEARCH WRITING 3 Pre-Req: FCWR 101	15	
YEAR 2	FALL			MENG 211 ENGINEERING MECHANICS I (Statics) 3 Pre-Req: PHYS 170, MATH 180	MATH 260 CALCULUS III 4 Pre-Req: MATH 180	PHYS 225 INTRODUCTION OF MODERN PHYSICS 3 Pre-Req: PHYS 180		FCWR 304 COMMUNICATION FOR TECHNICAL PROFESSIONS 3 Pre-Req: FCWR 151	FCSP 105 FOUNDATIONS OF SPEECH COMMUNICATION 3	16
	SPRING	MENG 270 INSTRUMENTATION AND MEASUREMENT 1 Pre-Req: PHYS 170	MENG 221 STRENGTH OF MATERIALS 3 Pre-Req: MENG 211 & MATH 180	MENG 212 ENGINEERING MECHANICS II 3 Pre-Req: MENG 211 Co-Req: MATH 260	MATH 320 DIFFERENTIAL EQUATIONS 3 Pre-Req: MATH 260	MENG 240 THERMODYNAMICS 3 Pre-Req: PHYS 225, CHEM 107		ICLT 3XX** LITERATURE CHOICE 3		16
YEAR 3	FALL	MENG 370 MACHINE DESIGN 3 Pre-Req: MENG 221	MENG 340 FLUID MECHANICS 3 Pre-Req: MENG 240	MENG 321 INTRO TO COMPUTER AIDED DESIGN 3 Pre-Req: MENG 105	MENG 310 INTRODUCTION TO MATERIAL SCIENCE 3 Pre-Req: CHEM 107 or CHEM 110	IENG 240 ENGINEERING ECONOMICS 3 Pre-Req: MATH 136 or MATH 141 or higher math				15
	SPRING	AENG 420 HIGH SPEED FLOWS & SHOCK WAVES 3 Pre-Req: MENG 240, MENG 340	MENG 324 VIBRATIONS AND SYSTEM 3 Pre-Req: MENG 201, MENG 212, MATH 320	MENG 349 HEAT TRANSFER 3 Pre-Req: MENG 240 and MATH 320	EENG 211 ELECTRICAL CIRCUITS 3 Pre-Req: MATH 170 and PHYS 170 Co-Req: MATH 180 and PHYS 180	MENG 343 THERMOFLUID LABORATORIES 1 Pre-Req: MENG 340 and MENG 240	STEM ELECTIVE MATH/PHYS 300 or 400 level or CoECS 300 level or above 3			16
YEAR 4	FALL	AENG 490 FLIGHT VEHICLE DESIGN 4 Pre-Req: MENG 340		AENG 410 AERODYNAMICS 3 Pre-Req: MENG 340 and MATH 320	IENG 245 STATISTICAL DESIGN I 3 Pre-Req: MATH 161 or MATH 170	EENG 275 ELECTRONICS LAB 1 Pre-Req: EENG 211 or EENG 212 and FCWR 101	LIBERAL ARTS ELECTIVE 3	ICPH 3XX** PHILOSOPHY CHOICE 3		17
	SPRING	MENG 438 ENGINEERING ANALYSIS 3 Pre-Req: MENG 201 and MATH 320		MENG 470 SENIOR MECHANICAL ENGINEERING DESIGN 4 Department Approval Required	AENG 463 PROPULSION 3 Pre-Req: MENG 340			ICBS 3XX** BEHAVIORAL SCIENCE CHOICE 3	ICSS 309/IENG 400 TECHNOLOGY AND GLOBAL ISSUES** 3	16

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*Non-native English speakers take FCWR 111 instead of FCWR 101 and FCWR 161 instead of FCWR 151.

Course names, numbers and/or pre-requisites subject to change. (Rev 4/22)

**Pre-Req: FCWR 101 and FCWR 151

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.