

2021-2022 MECHANICAL ENGINEERING BS: 4 YR. SEQUENCE

FALL CLASSES	SPRING CLASSES
<p><u>FALL: First Semester (15 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> First Year Colloquium: SYEN 1210 Intro to Systems Engineering OR PEAW 1300 The First Year Experience <input type="checkbox"/> MEEG 1207 Intro to Mechanical Engineering <input type="checkbox"/> CHEM 1406 Engineering Chemistry OR CHEM 1402 General Chemistry I <input type="checkbox"/> MATH 1451 Calculus <input type="checkbox"/> Core: Communications – Written (RHET 1311) 	<p><u>SPRING: Second Semester (15 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> MEEG 2117 Fabrication Lab I OR ETME 2117 Manufacturing Processes Lab <input type="checkbox"/> PHYS 2321/2121 Physics for Scientists and Engineers I and Lab <input type="checkbox"/> MATH 1452 Calculus II <input type="checkbox"/> Core: Communications – Written (RHET 1312) <input type="checkbox"/> Core: U. S. Traditions (HIST 2311/2312 or POLS 1310)
<p><u>FALL: Third Semester (17 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> SYEN 1302 C/C++ Programming for Engineers and Scientists² <input type="checkbox"/> PHYS 2322/2122 Physics for Scientists and Engineers II <input type="checkbox"/> MATH 2453 Calculus III <input type="checkbox"/> Core: Social Science <input type="checkbox"/> Core: History of Civilization (HIST 1311/1312) 	<p><u>SPRING: Fourth Semester (18 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> MEEG 2370 Engineering Statics OR CNMG 2370 Engineering Statics <input type="checkbox"/> MEEG 3372. Engineering Materials <input type="checkbox"/> STAT 3350. Intro to Probability or SYEN 3314 Probability Theory and Random Variables <input type="checkbox"/> MATH 3322 Introduction to Differential Equations <input type="checkbox"/> Core: Fine Arts <input type="checkbox"/> Core: Humanities (PHIL 2321)
<p><u>FALL: Fifth Semester (17 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> MEEG 2233 Solid Modeling and Design <input type="checkbox"/> SYEN 3316 Discrete Events Systems Modeling and Simulation <input type="checkbox"/> MEEG 3371 Dynamics I <input type="checkbox"/> SYEN 3373 Mechanics of Materials I <input type="checkbox"/> MEEG 3378 Thermodynamics I OR CNMG 3378 Engineering Thermodynamics <input type="checkbox"/> MATH 3312 Linear Algebra 	<p><u>SPRING: Sixth Semester (15 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> SYEN 3312 Optimization Methods in Systems Engineering <input type="checkbox"/> SYEN 3320 Systems Engineering Design and Analysis <input type="checkbox"/> MEEG 3370 Vibrations I <input type="checkbox"/> MEEG 3374 Fluid Mechanics I <input type="checkbox"/> MEEG 3379 Elements of Mechanical Design
<p><u>FALL: Seventh Semester (17 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> SYEN 3318 Decision and Risk Analysis <input type="checkbox"/> SYEN 4174 Mechanical Engineering Laboratory I <input type="checkbox"/> SYEN 4185 Systems Engineering Capstone Design I <input type="checkbox"/> MEEG 4379 Heat Transfer <input type="checkbox"/> PHYS 3350 Electronics OR SYEN 4326 Measurement Techniques <input type="checkbox"/> SYEN X3XX Major Elective¹ <input type="checkbox"/> SYEN X3XX Major Elective¹ 	<p><u>SPRING: Eighth Semester (16 hours)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> SYEN 3301 Engineering Economy OR CNMG 3302 Engineering Economy <input type="checkbox"/> SYEN 4176. Mechanical Engineering Laboratory II <input type="checkbox"/> SYEN 4335. Mechatronics I OR SYEN 3364 Intro to Control Systems Engineering <input type="checkbox"/> SYEN 4386 Systems Engineering Capstone Design II <input type="checkbox"/> SYEN X3XX Major Elective¹ <input type="checkbox"/> SYEN X3XX Major Elective¹

130 credit hours (128 credits hours of required courses + 2 credit hours of FYC [SYEN 1210])

¹ These courses should be chosen from the following: SYEN 4182, SYEN 4282, SYEN 4315, SYEN 4320, SYEN 4325, SYEN 4327, SYEN 4329, SYEN 4350, SYEN 4371, SYEN 4372, SYEN 4374, SYEN 4375, SYEN 4376, SYEN 4380, SYEN 4381, SYEN 4383, SYEN 4384.

Students may choose up to six hours of upper-level courses from SYEN or CVCE. In unusual circumstances, three of these six hours may be chosen from a technical area outside engineering, such as ETME, CPSC, or PHYS with approval of the program faculty. At most, three of these six hours may be taken from either independent study or cooperative education.

² Students may substitute CPSC 1375 with approval of the program coordinator.