Prerequisite Flowchart for Required Courses in B.S. Mechatronics Engineering Catalog Year 2019-2020

Freshman Fall
- ENGL 1101 Composition I 3-0-3 Credits
- MATH 1190 Calculus I 4-0-4 Credits
- MTRE 1000 Introduction to Mechatronics Engineering 1-3-2 Credits
- CHEM 1211 and CHEM 1211L Chemistry I 3-3-4 Credits
- CSE 1321/1321L (C++ version) Programming and Problem Solving I 3-3-4 Credits
- MTRE 2610 Intermediate Programming for Mechatronics 3-0-3 Credits

Freshman Spring
- ENGL 1102 Composition II 3-0-3 Credits
- MATH 2202 Calculus II 4-0-4 Credits
- PHYS 2211 and PHYS 2211L Physics I 3-3-4 Credits
- EE 2301 Circuit Analysis I 3-3-4 Credits
- MTRE 2610 Intermediate Programming for Mechatronics 3-0-3 Credits

Sophomore Fall
- MATH 2306 Differential Equations 3-0-3 Credits
- PHYS 2212 and PHYS 2212L Physics II 3-3-4 Credits
- EE 2501 Digital Logic Design 3-3-4 Credits
- MATH 2203 Calculus III 3-0-3 Credits
- ENGR 2214 Statics 3-0-3 Credits
- ENGR 3122 Dynamics 3-0-3 Credits

Sophomore Spring
- COM 1100 (Core B2) Cultural Perspectives 3-0-3 Credits
- MATH XXXX1 Mathematics Elective X-X-3 Credits
- PHYS 2211
- EE 3401 Engineering Electronics 3-3-4 Credits
- MTRE 3710* Mechatronics Engineering Fundamentals 3-3-4 Credits
- MATH 3260 Linear Algebra 3-0-3 Credits

Junior Fall
- Core C1 Literature of the World 3-0-3 Credits
- MATH 2302
- ENGR 3131/32 Strength of Materials / Lab 3-3-4 Credits
- MTRE 4001 & 4002L* Control Systems 3-3-4 Credits

Junior Spring
- Core E3 World History 3-0-3 Credits
- ENGR 3343* Fluid Mechanics 3-0-3 Credits
- MATH 2302

Senior Fall
- Core E1 U.S. Government 3-0-3 Credits
- MTRE 4100* Instruments And Controls 3-3-4 Credits

Senior Spring
- Core C2 Arts and Culture of the World 3-0-3 Credits
- Core E2 U.S. History 3-0-3 Credits

Core C1
- Literature of the World 3-0-3 Credits

Core C2
- Arts and Culture of the World 3-0-3 Credits

Core C3
- Literature of the World 3-0-3 Credits

Core C4
- Arts and Culture of the World 3-0-3 Credits

Core E1
- U.S. Government 3-0-3 Credits

Core E2
- U.S. History 3-0-3 Credits

Core E3
- World History 3-0-3 Credits

Core E4
- Social Sciences 3-0-3 Credits

* Requires Engineering Standing

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1 Select any MATH course 2332 or higher
2 Select from CPE 3xxx/4xxx (excluding CPE 4010), CS 3xxx/4xxx, EE 3xxx/4xxx (excluding EE 4201), ENGR 3xxx/4xxx, ME 3xxx/4xxx (excluding ME 3501 and ME 4501), MTRE 3xxx/4xxx
3 ENGR 3325 may be taken before or concurrently with MTRE 4800