

Course Requirements and Registration Priorities
School of Engineering and Digital Sciences (Undergraduate), Fall 2019

| # | Abbr | Title | Cr(US) | Cr(ECTS) | PreRequisite | CoRequisite | AntiRequisite | 1st priority registration | 2nd priority registration | 3rd priority registration | 4th priority registration |
|---|----------|---|--------|----------|---|-------------|---------------|---|--|---------------------------|---------------------------|
| SEDS | | | | | | | | | | | |
| Chemical and Materials Engineering | | | | | | | | | | | |
| 1 | CHME 200 | Basic Principles and Calculations in Chemical Engineering | 3 | 6 | | | | 2 year UG SEDS Chemical Engineering, 2 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 2 | CHME 201 | Chemical Engineering Thermodynamics | 3 | 6 | | | | 2 year UG SEDS Chemical Engineering, 2 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 3 | CHME 222 | Inorganic and Analytical Chemistry | 3 | 6 | | | | 2 year UG SEDS Chemical Engineering, 2 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 4 | ECHE 333 | Separation Processes-I | 3 | 6 | ECHE 319 Chemical Engineering Thermodynamics (1218) (D and above) | | | Registration by School Administration | | | |
| 5 | ECHE 369 | Transport Phenomena-II | 3 | 6 | | | | Registration by School Administration | | | |
| 6 | ECHE 385 | Research Practice | 3 | 6 | | | | Registration by School Administration | | | |

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|----|----------|--|---|---|--|--|--|--|--|---------------------|--|
| 7 | ECHE 418 | Capstone project 1 | 3 | 6 | ECHE 323 Computational methods in Chemical Engineering-I (1272) (D and above) | | | Registration by School Administration | | | |
| 8 | ECHE 463 | Introduction to Molecular Modeling Methods | 3 | 6 | | | | 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 9 | ECHE 478 | Electrochemical Engineering and Corrosion Protection | 3 | 6 | ECHE 222 Chemistry I (731) (D and above) | | | 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 10 | ECHE 481 | Chemical Reaction Engineering | 3 | 6 | ECHE 126 Introduction to Chemical Engineering (33) (D and above) AND BENG 124 Engineering Mathematics I (101) (D and above) AND BENG 225 Engineering Mathematics II (48) (D and above) | | | Registration by School Administration | | | |
| 11 | ECHE 484 | Multi-Phase Flows | 3 | 6 | ECHE 319 Chemical Engineering Thermodynamics (1218) (D and above) AND ECHE 270 Transport Phenomena-I (735) (D and above) | | | 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 12 | ECHE 486 | Chemical Process Safety | 3 | 6 | | | | Registration by School Administration | | | |

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|--------------------------|-------------|--------------------------------------|---|---|--|--|--|--|--|------------------------|--|
| 13 | ECHE 487 | Soft Matter, Foods and Colloids | 3 | 6 | | | | 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 14 | ECHE 488 | Atmospheric Chemistry and Physics | 3 | 6 | | | | 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| Civil Engineering | | | | | | | | | | | |
| 15 | CEE 200 | Structural Mechanics I | 3 | 6 | | | | 2 year UG SEDS Civil Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 16 | CEE 201 | Environmental Chemistry | 3 | 6 | | | | 2 year UG SEDS Civil Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |

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| 17 | CEE 204 | Civil Engineering CAD and Surveying | 3 | 6 | | | | 2 year UG SEDS Civil Engineering, 2 year UG SEDS Civil and Environmental Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 18 | ECE 303 | Construction Management and Practice | 3 | 6 | BENG 148 Engineering Practice (1073) (D and above) | | | Registration by School Administration | | | |
| 19 | ECE 307 | Engineering Geology and Rock Mechanics | 3 | 6 | | | | Registration by School Administration | | | |
| 20 | ECE 318 | Structural Design - Concrete | 3 | 6 | ECE 479 Structural Analysis II (2460) (C- and above) | | | Registration by School Administration | | | |
| 21 | ECE 401 | Capstone Project 1 | 3 | 6 | | | | Registration by School Administration | | | |
| 22 | ECE 404 | Construction Technologies and Processes | 3 | 6 | BENG 148 Engineering Practice (1073) (D and above) AND ECE 302 Civil Engineering Materials (1040) (D and above) | | | Registration by School Administration | | | |
| 23 | ECE 405 | Environmental Engineering | 3 | 6 | ECE 473 Environmental Systems (1953) (D and above) OR ECE 218 Environmental Chemistry (3296) (D and above) | | | Registration by School Administration | | | |
| 24 | ECE 416 | Highway Engineering | 3 | 6 | ECE 302 Civil Engineering Materials (1040) (D and above) | | | Registration by School Administration | | | |
| 25 | ECE 421 | Behaviour and Design of Structural System | 3 | 6 | (ECE 318 Structural Design - Concrete (3709) (D and above) OR ECE 314 Structural Engineering Applications I (1042) (D and above)) AND (ECE 319 Structural Design - Steel (4038) (D and above) OR ECE 315 Structural Engineering Applications II (1041) (D and above)) | | | 4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |

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| 26 | ECE 481 | Individual Research Projects in Civil Engineering | 3 | 6 | | | | Registration by School Administration | | | |
| 27 | ECE 482 | Solid and Hazardous Waste Management | 3 | 6 | ECE 405 Environmental Engineering (1265) (C- and above) | | | 4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| Civil and Environmental Engineering | | | | | | | | | | | |
| 28 | MAE 201 | Computer Aided Design | 3 | 6 | | | | 2 year UG SEDS Mechanical Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| Computer Science | | | | | | | | | | | |
| 29 | CSCI 111 | Web Programming & Problem Solving | 3 | 6 | | | CSCI 100 Computation and Problem Solving (1078) (C- and above) | Anthropology, Economics, History, Political Science and International Relations, Sociology, Undeclared, World Languages, Literature and Culture | | | |
| 30 | CSCI 115 | Programming Fundamentals | 4 | 8 | | | CSCI 151 Programming for Scientists and Engineers (192) (C- and above) | Biological Sciences, Chemistry | Computer Science, Mathematics, Physics, Robotics and Mechatronics, Undeclared | SSH | |
| 31 | CSCI 151 | Programming for Scientists and Engineers | 4 | 8 | | | ROBT 102 Programming for robotics and physics (188) (C- and above) OR CSCI 150 Fundamentals of Programming (1501) (C- and above) | Computer Science, Mathematics, Physics, Robotics and Mechatronics | Biological Sciences, Chemistry, Undeclared | SSH | |

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|----|-----------|-----------------------------------|---|----|--|---|--|----------------------------------|---|-----|--|
| 32 | CSCI 231 | Computer Systems and Organization | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science | | | |
| 33 | CSCI 235 | Programming Languages | 4 | 8 | CSCI 152 Performance and Data Structures (489) (C and above) | | | Computer Science | | | |
| 34 | CSCI 262 | Software Project Management | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C and above) | | | Computer Science | Biological Sciences, Chemistry, Mathematics, Physics, Robotics and Mechatronics, Undeclared | SSH | |
| 35 | CSCI 341 | Database Systems | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science | | | |
| 36 | CSCI 344 | Data Mining and Decision Support | 3 | 6 | CSCI 341 Database Systems (195) (C- and above) AND MATH 273 Linear Algebra with Applications (84) (C- and above) | | | Computer Science | | | |
| 37 | CSCI 361 | Software Engineering | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science | | | |
| 38 | CSCI 390 | Artificial Intelligence | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science | | | |
| 39 | CSCI 398 | Directed Study | 3 | 6 | | | | Instructor's permission required | | | |
| 40 | CSCI 399 | Internship II | 3 | 6 | | | | Instructor's Permission Required | | | |
| 41 | CSCI 399A | Internship II - A | 1 | 2 | | | | Instructor's permission required | | | |
| 42 | CSCI 399F | Internship II - F | 6 | 12 | | | | Instructor's Permission Required | | | |
| 43 | CSCI 408 | Senior Project I | 3 | 6 | | | | Computer Science | | | |
| 44 | CSCI 434 | Information Security | 3 | 6 | | CSCI 333 Computer Networks (1145) (D and above) | | Computer Science | Biological Sciences, Chemistry, Mathematics, Physics, Robotics and Mechatronics, Undeclared | | |
| 45 | CSCI 471 | Complexity and Computability | 3 | 6 | MATH 251 Discrete Mathematics (85) (C- and above) | | | Computer Science | | | |
| 46 | CSCI 490 | Brain Computer Interface | 3 | 6 | MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above) | | | Computer Science | Biological Sciences, Chemistry, Mathematics, Physics, Robotics and Mechatronics, Undeclared | SSH | |

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| 47 | CSCI 494 | Deep Learning | 3 | 6 | CSCI 390 Artificial Intelligence (643) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above) | | | Computer Science | Biological Sciences, Chemistry, Mathematics, Physics, Robotics and Mechatronics, Undeclared | | |
| Electrical and Computer Engineering | | | | | | | | | | | |
| 48 | ELCE 200 | Introduction to Electrical Circuits | 3 | 6 | | | | 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Electronic Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 49 | ELCE 202 | Digital Logic Design | 3 | 6 | | | | 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Electronic Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 50 | ELCE 203 | Signals and Systems | 3 | 6 | | | | 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Electronic Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| Electrical and Electronic Engineering | | | | | | | | | | | |
| 51 | EEE 238 | Digital Signal and Image Processing | 3 | 6 | | | | Registration by School Administration | | | |
| 52 | EEE 342 | Electromagnetics | 3 | 6 | | | | Registration by School Administration | | | |
| 53 | EEE 345 | Power Electronics | 3 | 6 | | | | Registration by School Administration | | | |
| 54 | EEE 382 | Antennas and Propagation | 3 | 6 | | | | Registration by School Administration | | | |

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| 55 | EEE 384 | Digital Integrated Circuits Design | 3 | 6 | EEE 250 Microelectronic Devices and Circuits (3152) (C- and above) | | | Registration by School Administration | | | |
| 56 | EEE 437 | Capstone Project 1 | 3 | 6 | | | | Registration by School Administration | | | |
| 57 | EEE 448 | Power Transmission and Distribution plants | 3 | 6 | | | | Registration by School Administration | | | |
| 58 | EEE 450 | RF and Microwave Circuit Design | 3 | 6 | | | | Registration by School Administration | | | |
| 59 | EEE 452 | Power Systems Protection | 3 | 6 | | | | Registration by School Administration | | | |
| 60 | EEE 490 | Introduction to Big Data | 3 | 6 | | | | Registration by School Administration | | | |
| 61 | EEE 493 | Industry 4.0 | 3 | 6 | | | | Registration by School Administration | | | |
| 62 | EEE 494 | Modern Characterizations for Semiconductor Industry | 3 | 6 | | | | Registration by School Administration | | | |
| 63 | EEE 497 | Signal Processing for Communications | 3 | 6 | | | | Registration by School Administration | | | |
| 64 | EEE 498 | Computer Networks | 3 | 6 | | | | Registration by School Administration | | | |
| Mechanical Engineering | | | | | | | | | | | |
| 65 | EME 354 | Advanced Control Systems | 3 | 6 | BENG 219 Control Systems (728) (D and above) | | | Registration by School Administration | | | |
| 66 | EME 358 | Heat Transfer | 3 | 6 | BENG 226 Engineering Thermodynamics (1553) (D and above) AND EME 275 Fluid Mechanics I (1988) (D and above) | | | Registration by School Administration | | | |
| 67 | EME 361 | Machine Design | 3 | 6 | | | | Registration by School Administration | | | |
| 68 | EME 410 | Aerodynamics | 3 | 6 | EME 357 Fluid Mechanics 2 (1280) (D and above) | | | Registration by School Administration | | | |
| 69 | EME 412 | Heating, Ventilating, and Air Conditioning | 3 | 6 | | | | 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |

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|----|---------|---|---|---|--|--|--|--|--|---------------------|--|
| 70 | EME 413 | Computer Aided Geometric Design | 3 | 6 | EME 253 Computer Aided Engineering (1050) (C- and above) | | | 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 71 | EME 451 | Capstone project 1 | 3 | 6 | | | | Registration by School Administration | | | |
| 72 | EME 456 | Feasibility Analysis of Clean Energy Technologies | 3 | 6 | | | | 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 73 | EME 463 | Machine Dynamics II | 3 | 6 | | | | Registration by School Administration | | | |
| 74 | EME 467 | Vehicle Propulsion Systems | 3 | 6 | | | | 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |

Mechanical and Aerospace Engineering

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| 75 | ENG 100 | Introduction to Engineering | 3 | 6 | | | | 1 year UG SEDS Chemical Engineering, 1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Electrical and Computer Engineering, 1 year UG SEDS Electrical and Electronic Engineering, 1 year UG SEDS Mechanical Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, 1 year UG SEDS Undeclared | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| 76 | ENG 101 | Programming for Engineers | 3 | 6 | | | | 1 year UG SEDS Chemical Engineering, 1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Electrical and Computer Engineering, 1 year UG SEDS Electrical and Electronic Engineering, 1 year UG SEDS Mechanical Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, 1 year UG SEDS Undeclared | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | | |

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| 77 | ENG 200 | Engineering Mathematics III (Differential Equations & Linear Algebra) | 3 | 6 | MATH 162 Calculus II (170) (C and above) | | | 2 year UG SEDS Chemical Engineering, 2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Electronic Engineering, 2 year UG SEDS Mechanical Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Undeclared | Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Undeclared | SEDS, SMG, SSH, SoM | |
| Robotics and Mechatronics | | | | | | | | | | | |
| 78 | ROBT 201 | Mechanics: Statics and Dynamics | 3 | 6 | MATH 162 Calculus II (170) (C- and above) AND (PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above) OR PHYS 171 Physics I for Physics Majors with Laboratory (1401) (C- and above)) | | | Robotics and Mechatronics, SMG | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 79 | ROBT 203 | Electrical and Electronic Circuits I with Lab | 4 | 8 | MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above) OR (PHYS 141 Physics I for non-majors with Lab (1437) (C- and above) AND PHYS 142 Physics II for non-majors with Lab (1438) (C- and above))) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |

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|----|----------|---|---|---|---|--|--|---------------------------|--|--|--|
| 80 | ROBT 205 | Signals and Sensing with Lab | 4 | 8 | MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above)) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 81 | ROBT 301 | Mechanical Design with CAD and Machining Laboratory | 4 | 8 | ROBT 201 Mechanics: Statics and Dynamics (475) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 82 | ROBT 303 | Linear Control Theory with Lab | 4 | 8 | ROBT 202 System Dynamics and Modeling (68) (C- and above) AND MATH 274 Introduction to Differential Equations (484) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 83 | ROBT 305 | Embedded Systems | 3 | 6 | ROBT 206 Microcontrollers with Lab (476) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 84 | ROBT 307 | Power Electronics | 3 | 6 | ROBT 204 Electrical and Electronic Circuits II with Lab (491) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 85 | ROBT 308 | Industrial Automation | 3 | 6 | | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 86 | ROBT 401 | Robot Dynamics and Control | 3 | 6 | ROBT 303 Linear Control Theory with Lab (623) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 87 | ROBT 407 | Machine Learning with Applications | 3 | 6 | MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above) AND CSCI 152 Performance and Data Structures (489) (C and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |
| 88 | ROBT 414 | Human-Robot Interaction | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Robotics and Mechatronics | Biological Sciences, Chemistry, Computer Science, Mathematics, Physics, Undeclared | | |

School of Engineering

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| 89 | BENG 405 | Project Management | 3 | 6 | | | | Registration by School Administration | | | |
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