

# Engineering Technology - MECHATRONICS Concentration

## Bachelor of Science

NAME:

W#:

|  | Grade        | Semester  | Minimum Grade of D Required:   | Grade | Semester                                   | Minimum Grade of C required:                                 |  |
|--|--------------|---|--|-------|--|--|--|
| <b>ENGLISH (12 hrs)</b>  |              |   | <b>ENGL 101</b> Freshman Composition (3 hrs)   |       |  | <b>OSHE 111</b> Introduction to OSHE (3 hrs)                 | <b>ENGINEERING TECHNOLOGY (31 hrs)</b>     |
|  |              |   | <b>ENGL 102</b> Critical Reading and Writing (3 hrs)   |       |  | <b>IT 407</b> Six Sigma Industrial Quality (3 hrs)           |  |
|  |              |   | <b>ENGL 230, 231 <u>or</u> 232</b> (3 hrs)   |       |  | <b>ET 100</b> Introduction to Engineering Technology (3 hrs) |  |
|  |              | <b>ENGL 322</b> Intro to Prof and Technical Writing (3 hrs) |  |       | <b>ET 111</b> Engineering Graphics (3 hrs) |  |  |
| <b>NATURAL SCIENCE (15 hrs)</b>  |              |   | <b>Biology - GBIO 151</b> (3 hrs)  |       |  | <b>ET 202</b> Computer Applications (3 hrs)                  |  |
|  |              |   | <b>Biology - BIOL 152</b> (1 hr)   |       |  | <b>ET 213</b> Electrical Circuits (3 hrs)                    |  |
|  |              |   | <b>Chemistry - CHEM 121</b> Lecture (3 hrs)  |       |  | <b>ET 241</b> Introduction to Engineering Materials (3 hrs)  |  |
|  |              |   | <b>Physics - PHYS 191</b> Lecture (3 hrs)  |       |  | <b>ET 490</b> Seminar (1 hr)                                 |  |
|  |              |   | <b>Physics - PLAB 193</b> Lab (1 hr)   |       |  | <b>ET 492</b> Project Management (3 hrs)                     |  |
|  |              |   | <b>Physics - PHYS 192</b> Lecture (3 hrs)  |       |  | <b>ET 493</b> Senior Design I (3 hrs)                        |  |
|  |              |   | <b>Physics - PLAB 194</b> Lab (1 hr)   |       |  | <b>ET 494</b> Senior Design II (3 hrs)                       |  |
| <b>GENERAL EDUCATION (17 hrs)</b>  |              |   | <b>ART, DNCE, MUS, <u>or</u> THEA</b> (3 hrs)  |       |  | <b>ET 205</b> Mathematical Methods for Engineering (3 hrs)   | <b>MECHATRONICS CONCENTRATION (36 hrs)</b> |
|  |              |   | <b>HIST 101, 102, 201, <u>or</u> 202</b> (3 hrs)   |       |  | <b>ET 212</b> Introduction to Programming (3 hrs)            |  |
|  |              |   | <b>COMM 211</b> Introduction to Public Speaking (3 hrs)  |       |  | <b>ET 215</b> Computer Logic and Organization (3 hrs)        |  |
|  |              |   | <b>ECON 201 or ECON 202</b> (3 hrs)  |       |  | <b>ET 221</b> Programming for Technologists (3 hrs)          |  |
|  |              |   | <b>ANTH, ECON, POLI SCI, PSYC, <u>or</u> SOC</b> (3 hrs)   |       |  | <b>ET 225</b> Electronics I (3 hrs)                          |  |
|  |              |   | <b>SE 101 or Free Elective</b> (2 hrs) not required of transfer or re-admitted students with 30 hours or more. |       |  | <b>ET 320</b> Microprocessors and Interfacing (3 hrs)        |  |
| <b>MATH (10 hrs)</b>   | <b>Grade</b> | <b>Semester</b>   | <b>Minimum Grade of C Required:</b>  |       |  | <b>ET 322</b> Programmable Logic Controllers (3 hrs)         |  |
|  |              |   | <b>MATH 175</b> Precalculus with Trigonometry (5 hrs)  |       |  | <b>ET 325</b> Digital Electronics (3 hrs)                    |  |
|  |              |   | <b>MATH 200</b> Calculus I (5 hrs)   |       |  | <b>ET 421</b> Industrial Electrical Machinery (3 hrs)        |  |
| <sup>1</sup> Technical Electives can be chosen from:<br>CMPS 280 Algorithm Design & Implementation II<br>ET 362 Solar and Geothermal Systems<br>ET 365 Power Electronics<br>ET 371 Engineering Dynamics<br>ET 376 Applied Fluid Mechanics<br>ET 381 Strength of Materials<br>ET 385 Mechanical Design<br>ET 400 Internship |              |   |  |       |  | <b>ET 422</b> Mechatronics Systems (3 hrs)                   |  |
|  |              |   |  |       |  | <b>ET 425</b> Control and Automation (3 hrs)                 |  |
|  |              |   |  |       |  | <b>ET 488</b> Robotics and Automation (3 hrs)                |  |
|  |              |   |  |       |  | <sup>1</sup> Technical Elective (3 hrs)                      |  |
| <b>Tech Elec (3 hrs)</b>   |              |   |  |       |  |  |  |