Comprehensive Mechanical Engineering Technology Bachelor of Science Fall 2024 6/17/2024 Cr Hrs Cr Ba Prerequisites / Periodicity Rec General Education Requirements 45-49 **Specific General Education Requirements** MTH 261 - Analytic Geometry and Calculus I "C" or better in MTH 137 or 138 or placement ENG 210 - Writing across the Disciplines 3 30 hours, ENG 110 3 ECO 155 - Principles of Macroeconomics 3 PSY 121 - Introductory Psychology PHY 203 - Foundations of Physics I 5 MTH 261 or concurrent if ACT MTH > 29 **Mechanical Engineering Technology Core Requirements** Declared major TCM 110 - Introduction to Engineering Design 3 TCM 273 - Mechanics of Materials 3 PHY 233/ Spring TCM 281 - Dynamics 3 PHY 233/ Spring TCM 315 - Thermodynamics and Heat Transfer MTH 280, PHY 203/ Spring 3 3 TCM 315/ Spring TCM 325 - Fluid Mechanics TCM 331 - Materials and Manufacturing Processes 3 TCM 273/ Fall TCM 337 - Quality Control and Measurement 3 MTH 345 or QBA 237/ Fall TCM 347 - Electrical Circuits 3 TCM 322 or PHY 204/ Fall TCM 355 - Production Planning and Control 53 hours/ Spring 3 TCM 359 - Principles of Project Management 3 53 hours TCM 365 - Computer Integrated Manufacturing 3 TCM 110; TCM 347 or concurrent enrollment/ Fall TCM 411 - Mechanical Design and Analysis 3 TCM 331 or concurrent enrollment/ Demand TCM 438 - Systems Integration 3 TCM 365 or TCM 366/ Spring TCM 498 - Senior Design 3 TCM 411/ Spring TCM 551 - Project Schedule and Cost Management 3 80 hours, TCM 359; admitted to program **Related Quantitative and Science Requirements** ACC 201 - Introduction to Financial Accounting 12 hours; "C" or better in MTH 134 or above CHM 160 - General Chemistry I 4 MTH 136 or higher; concurrent enrollment in CHM 161 CHM 161 - General Chemistry I Laboratory 1 CHM 160 or concurrent enrollment 3 ITC 260 -Programing Logic and Design for Business OR MTH 134 or higher 4 CSC 125 - Introduction to C++ Programming MTH 136 or higher or concurrent recommended 5 "C" or better in MTH 261 MTH 280 - Analytic Geometry and Calculus II MTH 345 - Statistics for Scientists and Engineers 3 MTH 280 or 288 "C" or better in PHY 203; MTH 280 or 288 or concurrent 5 PHY 204 - Foundations of Physics II PHY 233 - Engineering Statics 3 "C" or better in MTH 280 and PHY 203 Approved Upper Division (300 level or above) electives 6 Must be approved by advisor

Cr Rec - Credit hours received for courses completed. Cr Bal - Credit balance needed to fulfill requirements.

Electives, as needed to bring total credit hours to a minimum of 120 and upper division hours (300+) to 40.

For advisement only. Consult appropriate catalog for degree requirements.

^{**}Admission to the Mechanical Engineering Technology program: At least a "C" or better in MTH 261.**