

# Manufacturing Engineering Technology B.S. Course Sequence

Undergraduate Catalog - 2017/2018

Total undergraduate credits: 124

Name: \_\_\_\_\_

Z-ID: \_\_\_\_\_

Advisor: \_\_\_\_\_

## Freshman (Fall)

- ENGL103 - Composition I (F,S)
- COMS 100 - Fundamentals of Oral Communication (F,S)
- CHEM 110 - Chemistry or CHEM 210 - General Chem I (F,S)
- CHEM 111 - Chem Lab or CHEM 212 - Gen Chem Lab I (F,S)
- MATH 155 - Trigonometry (F,S)  
*PRQ: MATH 110 w/C*
- TECH 211 - CAD/ Computer-Aided Modeling (F,S)

## Freshman (Spring)

- MATH 229 - Calculus I (F,S)  
*PRQ: MATH 155 w/C*
- ENGL 203 - Composition II (F,S)  
*PRQ: ENG 103 w/C*
- TECH 265 - Basic Manufacturing Processes (F,S)  
*PRQ: MATH 155 w/C*
- TECH 262 - Machine Production Processes (F,S)  
*PRQ: T211*
- PHYS 210 - General Physics I (or PHYS 253) (F,S)  
*PRQ: MATH 155 (253: MATH 229 crq.)*

## Sophomore (Fall)

- MATH 230 - Calculus II (F,S)  
*PRQ: MATH 229 w/C*
- TECH 175 - Electronics and Electricity Fundamentals (F,S)  
*PRQ: MATH 155 w/C, PHYS 150&151 or 210 CRQ: T175A*
- TECH 175A - Electronics & Electricity Fund Lab (F,S)  
*CRQ: T175A*
- TECH 393 - Structure and Properties of Materials (F)  
*PRQ: T265, CHEM 110 or 210*
- Gen. Ed. 1 (Creativity/Critical Analysis) *Class: \_\_\_\_\_*
- Man. Proc. Elective 1 - *Class: \_\_\_\_\_*

## Sophomore (Spring)

- TECH 210 - Engineering Mechanics (S)  
*PRQ: PHYS 210 or 253 CRQ: MATH 229*
- TECH 212 - Engineering Dynamics (S)  
*CRQ: T210, MATH 229*
- TECH 311 - Advanced Computer-Aided Modeling (S)  
*PRQ: T211 w/C*
- TECH 295 - Mfg Comp Apps or CSCI 240 - Comp Prog in C++ (F,S)  
*PRQ: MATH 155 w/C, T265 (CSCI 240 PRQ: MATH 110)*
- STAT 208 - Basic Stats or STAT 301 - Elementary Stats (F,S)
- Gen. Ed. 2 (Creativity/Critical Analysis) *Class: \_\_\_\_\_*

## Junior (Fall)

- TECH 369 - Strength of Materials (F)  
*PRQ: MATH 229, T210*
- TECH 425 - Programmable Electronic Controllers (F,S)  
*PRQ: T175, T265, T295 or CSCI 215 or 240*
- TECH 391 - Industrial Quality Control (F,S)  
*PRQ: MATH 155, STAT 208 or 301*
- ENGL 308 - Tech Writing or MGMT 346 - Bus Comms (F,S)  
*MGMT 346 PRQ: COMS 100, ENG 203 or 204, Jr. Standing*
- Gen. Ed. 3 (Society and Culture) *Class: \_\_\_\_\_*

## Junior (Spring)

- TECH 326 - Fluid Mechanics/Lab (S)  
*PRQ: MATH 230, PHYS 210*
- TECH 342 - Manufacturing Component Design (S)  
*PRQ: MATH 230, T211, T212, T369*
- TECH 443 - Engineering Economy (S)  
*PRQ: MATH 155*
- Man. Proc. Elective 2 - *Class: \_\_\_\_\_*
- TECH 415 - Applied Industrial Experimental Analysis (S)  
*PRQ: MATH 155, STAT 208*

## Senior (Fall)

- TECH 420 - Computer-Integrated Manufacturing (F)  
*PRQ: T175/175A, T211, T265*
- TECH 477 - Egr Tech Senior Design Project I (F,S)  
*PRQ: ENGL 308, T342, T369, T391*
- Gen. Ed. 4 (Society/Culture) *Class: \_\_\_\_\_*
- Man. Sys. Elective 1 *Class: \_\_\_\_\_*
- Man. Sys. Elective 2 *Class: \_\_\_\_\_*

## Senior (Spring)

- TECH 362 - Numerical Control Systems (S)  
*PRQ: T262, T295 or CSCI 215 or 240*
- TECH 423 - Automated Manufacturing Systems (S)  
*PRQ: T326, T420, T425*
- TECH 478 - Egr Tech Senior Design Project II (F,S)  
*PRQ: T477*
- Man. Sys. Elective 3 *Class: \_\_\_\_\_*
- Gen. Ed. 5 (Any Knowledge Domain) *Class: \_\_\_\_\_*

## Manufacturing Systems Electives (3 courses)

- TECH 305 - Green Technologies (F,S)  
*PRQ: MATH 155, CHEM 110*
- TECH 404 - Supervision in Industry (F,S)  
*PRQ: STAT 208*
- TECH 406 - Facilities Management Technology (S)  
*PRQ: MATH 155, T211*
- TECH 409 - Internship  
*PRQ: Jr. Standing, Department Consent*
- TECH 429 - Plant location, Layout, and Materials Handling (F)  
*PRQ: MATH 155, T265*
- TECH 434 - Human Factors in Industrial Accident Prevention (F,S)
- TECH 442 - Work Simplification and Measurement (F)  
*PRQ: MATH 155, T265*
- TECH 444 - Production Control Systems (S)  
*PRQ: MATH 155, T265*
- TECH 484 - Energy Management (F)  
*PRQ: MATH 155*
- TECH 492 - Manufacturing Distribution Applications (S)  
*PRQ: MATH 155, STAT 208*
- TECH 496 - Industrial Project Management (F,S)  
*PRQ: T429, T415, MGMT 346 or ENGL 308, Sr. Status*

## Manufacturing Processes Electives (2 courses)

- TECH 260 - Metal Fabrication Processes (F)  
*PRQ: T211, MATH 155*
- TECH 312 - Design Dimensioning and Tolerancing (S)  
*PRQ: T211, T260 or T265*
- TECH 313 - Product Design & Development for Manufacturability (F)  
*PRQ: MATH 155, T311, T265*
- TECH 314 - Tool & Die Design (F)  
*PRQ: MATH 155, T211*
- TECH 344 - Materials and Processes in the Plastics Industry (F)  
*PRQ: MATH 155, T265, CHEM 110*
- TECH 365 - Metrology (F)  
*PRQ: T211, MATH 155*
- TECH 414 - Computer-Aided Machine Design (F)  
*PRQ: PHYS 150/151, T265, T311*
- TECH 416 - Heating, Ventilating, and Air Cond Tech (S)  
*PRQ: MATH 155, PHYS 210*
- TECH 417 - Design for Energy Efficiency and Green Materials (F)  
*PRQ: MATH 155, PHYS 210*
- TECH 427 - Testing Methods, Procedures, & Selection of Sustainable Plastics (F)  
*PRQ: T265 or T344, CHEM 110, ENGL 308*
- TECH 479 - Special Topics in Engineering Technology (F)  
*See my NIU for any prerequisites for semester*

## Human Diversity Requirement

Satisfied with: \_\_\_\_\_