

Manufacturing Engineering Technology B.S. Course Sequence

Undergraduate Catalog - 2018/2019

Total undergraduate credits: 124

Name: _____

Z-ID: _____

Advisor: _____

Freshman (Fall)	
<input type="checkbox"/>	ENGL103 - Rhetoric & Composition I (F,S)
<input type="checkbox"/>	COMS 100 - Fundamentals of Oral Communication (F,S)
<input type="checkbox"/>	CHEM 110 - Chemistry or CHEM 210 - General Chem I (F,S)
<input type="checkbox"/>	CHEM 111 - Chem Lab or CHEM 212 - Gen Chem Lab I (F,S)
<input type="checkbox"/>	MATH 155 - Trigonometry (F,S) <i>PRQ: MATH 110 w/C</i>
<input type="checkbox"/>	TECH 211 - CAD/Computer-Aided Modeling (F,S)

Freshman (Spring)	
<input type="checkbox"/>	MATH 229 - Calculus I (F,S) <i>PRQ: MATH 155 w/C</i>
<input type="checkbox"/>	ENGL 203 - Rhetoric & Composition II (F,S) <i>PRQ: ENG 103 w/C</i>
<input type="checkbox"/>	TECH 265 - Basic Manufacturing Processes (F,S) <i>PRQ: MATH 155 w/C</i>
<input type="checkbox"/>	TECH 262 - Machine Production Processes (F,S) <i>PRQ: T211</i>
<input type="checkbox"/>	PHYS 210 - General Physics I (or PHYS 253) (F,S) <i>PRQ: MATH 155 (253: MATH 229 crq.)</i>

Sophomore (Fall)	
<input type="checkbox"/>	MATH 230 - Calculus II (F,S) <i>PRQ: MATH 229 w/C</i>
<input type="checkbox"/>	TECH 175 - Electronics and Electricity Fundamentals (F,S) <i>PRQ: MATH 155 w/C, PHYS 150&151 or 210 CRQ: T175A</i>
<input type="checkbox"/>	TECH 175A - Electronics & Electricity Fund Lab (F,S) <i>CRQ: T175A</i>
<input type="checkbox"/>	TECH 393 - Structure and Properties of Materials (F) <i>PRQ: T265, MATH 155, CHEM 110 or 210</i>
<input type="checkbox"/>	Gen. Ed. 1 (Creativity/Critical Analysis) Class: _____
<input type="checkbox"/>	Man. Proc. Elective 1 - Class: _____

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

Junior (Fall)	
<input type="checkbox"/>	TECH 369 - Strength of Materials (F) <i>PRQ: MATH 229, T210</i>
<input type="checkbox"/>	TECH 325 - Programmable Electronic Controllers (F) <i>PRQ: T175, T175A, T265, CSCI 215, or 240 or T295</i>
<input type="checkbox"/>	TECH 391 - Industrial Quality Control (F,S) <i>PRQ: MATH 155, STAT 208 or 301</i>
<input type="checkbox"/>	ENGL 308 - Tech Writing or MGMT 346 - Bus Comms (F,S) <i>MGMT 346 PRQ: COMS 100, ENG 203 or 204, Jr. Standing</i>
<input type="checkbox"/>	Gen. Ed. 3 (Society and Culture) Class: _____

Junior (Spring)	
<input type="checkbox"/>	TECH 326 - Fluid Mechanics/Lab (S) <i>PRQ: MATH 230, PHYS 210</i>
<input type="checkbox"/>	TECH 342 - Manufacturing Component Design (S) <i>PRQ: MATH 230, T211, T212, T369</i>
<input type="checkbox"/>	TECH 443 - Engineering Economy (S) <i>PRQ: MATH 155</i>
<input type="checkbox"/>	TECH 425 - Advanced Programmable Electronic Controllers (F,S) <i>PRQ: T325</i>
<input type="checkbox"/>	TECH 415 - Applied Industrial Experimental Analysis (S) <i>PRQ: MATH 155, STAT 208</i>

Senior (Fall)	
<input type="checkbox"/>	TECH 362 - Numerical Control Systems (F) <i>PRQ: T262, T295 or CSCI 215 or 240</i>
<input type="checkbox"/>	TECH 477 - Egr Tech Senior Design Project I (F,S) <i>PRQ: ENGL 308 or MGMT 346 and T369, T342, & T391</i>
<input type="checkbox"/>	Gen. Ed. 4 (Society/Culture) Class: _____
<input type="checkbox"/>	Man. Sys. Elective 1 Class: _____
<input type="checkbox"/>	Man. Proc. Elective 2 - Class: _____

Senior (Spring)	
<input type="checkbox"/>	TECH 462 - CNC Production Programming (S) <i>PRQ: T311 and T362</i>
<input type="checkbox"/>	TECH 423 - Automated Manufacturing Systems (S) <i>PRQ: T325, T326</i>
<input type="checkbox"/>	TECH 478 - Egr Tech Senior Design Project II (F,S) <i>PRQ: T477</i>
<input type="checkbox"/>	Man. Sys. Elective 2 Class: _____
<input type="checkbox"/>	Gen. Ed. 5 (Any Knowledge Domain) Class: _____

Manufacturing Systems Electives (2 courses)	
TECH 305 - Green Technologies (F,S) <i>PRQ: MATH 155, CHEM 110</i>	
TECH 404 - Supervision in Industry (S) <i>PRQ: STAT 208</i>	
TECH 406 - Facilities Management Technology (F) <i>PRQ: MATH 155, T211</i>	
TECH 407 - Maintenance Management Technology <i>PRQ: Either STAT 208 or 301 and TECH 265, or department consent</i>	
TECH 409 - Internship <i>PRQ: Jr. Standing, Department Consent</i>	
TECH 419 - Energy Auditing (F,S) <i>PRQ: MATH 155 with C or better</i>	
TECH 429 - Plant location, Layout, and Materials Handling (F) <i>PRQ: MATH 155, T265</i>	
TECH 434 - Human Factors in Industrial Accident Prevention (F,S)	
TECH 442 - Work Simplification and Measurement (F) <i>PRQ: MATH 155, T265</i>	
TECH 444 - Production Control Systems (S) <i>PRQ: MATH 155, T265</i>	
TECH 492 - Manufacturing Distribution Applications (S) <i>PRQ: MATH 155, STAT 208, TECH 265</i>	

Manufacturing Processes Electives (2 courses)	
TECH 260 - Metal Fabrication Processes (F) <i>PRQ: T211, MATH 155</i>	
TECH 312 - Design Dimensioning and Tolerancing (S) <i>PRQ: T211, T260 or T265</i>	
TECH 313 - Product Design & Development for Manufacturability (F) <i>PRQ: MATH 155, T311, T265</i>	
TECH 314 - Tool & Die Design (F) <i>PRQ: MATH 155, T211, T265</i>	
TECH 344 - Materials and Processes in the Plastics Industry (F) <i>PRQ: MATH 155, T265, CHEM 110</i>	
TECH 365 - Metrology (F) <i>PRQ: T211, MATH 155</i>	
TECH 414 - Computer-Aided Machine Design (F) <i>PRQ: PHYS 150/151, T265, T311</i>	
TECH 416 - Heating, Ventilating, and Air Cond Tech (S) <i>PRQ: MATH 155, PHYS 210</i>	
TECH 417 - Design for Energy Efficiency and Green Materials (F) <i>PRQ: MATH 155, PHYS 210</i>	
TECH 427 - Testing Methods, Procedures, & Selection of Sustainable Plastics (F) <i>PRQ: T265 or T344, CHEM 110, ENGL 308</i>	
TECH 479 - Special Topics in Engineering Technology (F) <i>See my NIU for any prerequisites for semester</i>	

Refer to current catalog for updated pre-reqs

Human Diversity Requirement

Satisfied with: _____