## University Degree Requirements

### Overall Credit and GPA Requirements
- Total Credits (129)
- Resident Credits (32)
- Stout GPA (2.000)

### Racial and Ethnic Studies (6 credits)
- (Select three credits from RES Category A)
- (Select three credits from any RES area)

### Global Perspective (6 credits)
- (Complete a program of university-approved work or study abroad, or 6 credits of global perspective approved courses)

**NOTE:** RES and GLP requirements may be met within GE or major course selection.

## General Education Requirements (40 credits)

### Communication Skills (9 credits)
- ENGL 101 or ENGL 111 Composition 1
- ENGL 102 or ENGL 112 Composition 2
- SPCOM 100 Fundamentals of Speech

### Analytic Reasoning and Natural Science (13 credits)
- (At least one math or statistics course and a natural science course with a lab are required)
- MATH 153 Calculus I
- MATH 154 Calculus II
- CHEM 135 College Chemistry I

### Arts and Humanities (6 credits)
- (Must be from at least two categories: Art History/Music Appreciation, Creative/Performing Arts, Foreign Language & Culture, History, Literature, Philosophy)

### Social and Behavioral Sciences (6 credits)
- (Must be from at least two categories: Anthropology, Economics, Geography, Political Science, Psychology, Sociology)

### Contemporary Issues (3 credits)
- (Courses must be selected from the list of approved contemporary issues courses)

### Social Responsibility and Ethical Reasoning (3 credits)
- (Courses must be selected from the list of approved social responsibility and ethical reasoning courses)

## Manufacturing Major Requirements (89 Credits)

### Mathematics and Basic Sciences (21 credits)
- CHEM 341 Chemistry of Materials
- STAT 330 Probability and Statistics for Engineering & Sciences
- MATH 250 Differential Equations/Linear Algebra
- PHYS 291 Statics
- MECH 292 Dynamics
- PHYS 282 University Physics II

### Engineering Core (14 credits)
- ELEC 290 Circuits & Devices
- MECH 294 Mechanics of Materials
- MFGE 275 Thermodynamics & Heat Transfer
- MFGE 349 Internship Experience OR
- MFGE 449 Cooperative Experience
- MFGE 150 Introduction to Manufacturing Materials

### Process, Assembly, and Product Engineering (12 credits)
- ENGR 112 Engineering Graphics Fundamentals
- ENGR 210 Engineering Graphics Using Solid Modeling
- MFGE 441 Design of Jigs, Fixtures, & Tooling
- MFGE 405 Capstone I: Concurrent Design

### Materials and Manufacturing Processes (15 credits)
- MFGT 251 Funds of Plastic Materials Processing
- MFGT 252 Material Removal & Forming Processing
- MFGT 253 Joining & Casting Processes
- MFGE 351 Manufacturing Process Engineering I
- MFGE 352 Manufacturing Process Engineering II

### Manufacturing Integration Methods & System Design (18 credits)
- MFGE 325 Computer Aided Manufacturing
- MFGE 363 Controls & Instrumentation
- MFGE 391 Fluid Mechanics
- MFGE 415 Machine Vision & Robotics
- MFGE 410 Capstone II: Manufacturing System Design
- MFGE 440 Mfg. System Design & Simulation

### Manufacturing Competitiveness (9 credits)
- INMG 300 Engineering Economy
- INMG 422 Quality Engineering
- INMG 335 Lean Manufacturing Systems

## For more information:
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