

BS in Engineering Management

Program Codes:

20FQ1217BS

Degree Requirements

To earn a Bachelor of Science in Engineering Management degree from UIC, students need to complete University, college, and department degree requirements. The Department of Mechanical and Industrial Engineering degree requirements are outlined below. Students should consult the *College of Engineering* section for additional degree requirements and college academic policies.

| Code | Title | Hours |
|---|-------|-------|
| Summary of Requirements | | |
| Nonengineering and General Education Requirements | | 74 |
| Required in the College of Engineering | | 52 |
| Elective outside the Major Rubric | | 2 |
| Total Hours | | 128 |

Nonengineering and General Education Requirements

| Code | Title | Hours |
|---|---|-------|
| Required Courses | | |
| ENGL 160 | Academic Writing I: Writing in Academic and Public Contexts | 3 |
| ENGL 161 | Academic Writing II: Writing for Inquiry and Research | 3 |
| Understanding the Past course ^a | | 3 |
| Understanding the Creative Arts course ^a | | 3 |
| Exploring World Cultures course ^a | | 3 |
| MATH 180 | Calculus I ^b | 4 |
| MATH 181 | Calculus II ^b | 4 |
| MATH 210 | Calculus III ^b | 3 |
| MATH 310 | Applied Linear Algebra | 3 |
| CHEM 122 | General Chemistry I Lecture ^e | 4 |
| CHEM 123 | General Chemistry Laboratory I ^{b,e} | 1 |
| PHYS 141 | General Physics I (Mechanics) ^b | 4 |
| PHYS 142 | General Physics II (Electricity and Magnetism) ^b | 4 |
| ACTG 210 | Introduction to Financial Accounting | 3 |
| ACTG 211 | Introduction to Managerial Accounting | 3 |
| ECON 120 | Principles of Microeconomics ^{c,d} | 4 |
| ECON 121 | Principles of Macroeconomics ^{c,d} | 4 |
| FIN 300 | Introduction to Finance | 3 |
| MGMT 340 | Introduction to Organizations | 3 |
| MGMT 350 | Business and Its External Environment | 3 |
| MKTG 360 | Introduction to Marketing | 3 |
| MGMT 495 | Competitive Strategy | 4 |
| STAT 362 | Elements of Statistical Computing | 2 |
| Total Hours | | 74 |

- a Students should consult the General Education (<http://catalog.uic.edu/ucat/degree-programs/general-education>) section of the catalog for a list of approved courses in this category.
- b This course is approved for the Analyzing the Natural World General Education category.
- c This course is approved for the Understanding the Individual and Society General Education category.
- d This course is approved for the Understanding U.S. Society General Education category.
- e General Education credit is given for successful completion of both CHEM 122 and CHEM 123.

Required in the College of Engineering

| Code | Title | Hours |
|-------------------------|--|-------|
| Required Courses | | |
| ENGR 100 | Engineering Orientation ^a | 1 |
| CME 201 | Statics | 3 |
| CME 203 | Strength of Materials | 3 |
| CS 109 | C/C ++ Programming for Engineers with MatLab | 3 |
| IE 201 | Financial Engineering | 3 |
| IE 342 | Probability and Statistics for Engineers | 3 |
| IE 345 | Regression Applications and Forecasting in Engineering | 3 |
| IE 365 | Work Productivity Analysis | 4 |
| IE 380 | Manufacturing Process Principles | 3 |
| IE 442 | Design and Analysis of Experiments in Engineering | 3 |
| IE 446 | Quality Control and Reliability | 3 |
| IE 461 | Safety Engineering | 3 |
| IE 463 | Plant Layout and Materials Handling | 3 |
| IE 466 | Production Planning and Inventory Control | 3 |
| IE 467 | Discrete Event Computer Simulation Application | 3 |
| IE 471 | Operations Research I | 3 |
| IE 472 | Operations Research II | 3 |
| IE 473 | Stochastic Processes and Queuing Models | 3 |
| IE 499 | Professional Development Seminar | 0 |
| Total Hours | | 52 |

- a ENGR 100 is a one-semester-hour course, but the hour does not count toward the total hours required for graduation.

Elective outside the Major Rubric

| Code | Title | Hours |
|---|-------|-------|
| Electives | | |
| Elective outside the IE Rubric and College of Business Administration | | 2 |
| Total Hours | | 2 |

Sample Course Schedule— Engineering Management

| Course | Title | Hours |
|-------------------------------|---|-------|
| Freshman Year | | |
| First Semester | | |
| MATH 180 | Calculus I | 4 |
| CHEM 122 | General Chemistry I Lecture | 4 |
| CHEM 123 | General Chemistry Laboratory I | 1 |
| ENGL 160 | Academic Writing I: Writing in Academic and Public Contexts | 3 |
| ECON 120 | Principles of Microeconomics | 4 |
| ENGR 100 | Engineering Orientation ^a | 1 |
| | Hours | 16 |
| Second Semester | | |
| MATH 181 | Calculus II | 4 |
| PHYS 141 | General Physics I (Mechanics) | 4 |
| ENGL 161 | Academic Writing II: Writing for Inquiry and Research | 3 |
| ECON 121 | Principles of Macroeconomics | 4 |
| | Hours | 15 |
| Sophomore Year | | |
| First Semester | | |
| MATH 210 | Calculus III | 3 |
| PHYS 142 | General Physics II (Electricity and Magnetism) | 4 |
| IE 201 | Financial Engineering | 3 |
| ACTG 210 | Introduction to Financial Accounting | 3 |
| CS 109 | C/C ++ Programming for Engineers with MatLab | 3 |
| | Hours | 16 |
| Second Semester | | |
| ACTG 211 | Introduction to Managerial Accounting | 3 |
| CME 201 | Statics | 3 |
| IE 342 | Probability and Statistics for Engineers | 3 |
| MGMT 340 | Introduction to Organizations | 3 |
| MKTG 360 | Introduction to Marketing | 3 |
| | Hours | 15 |
| Junior Year | | |
| First Semester | | |
| MATH 310 | Applied Linear Algebra | 3 |
| IE 345 | Regression Applications and Forecasting in Engineering | 3 |
| IE 365 | Work Productivity Analysis | 4 |
| CME 203 | Strength of Materials | 3 |
| General Education Core course | | 3 |
| | Hours | 16 |
| Second Semester | | |
| IE 380 | Manufacturing Process Principles | 3 |
| IE 442 | Design and Analysis of Experiments in Engineering | 3 |

| | | |
|-------------------------------|--|-----|
| IE 446 | Quality Control and Reliability | 3 |
| FIN 300 | Introduction to Finance | 3 |
| STAT 362 | Elements of Statistical Computing | 2 |
| General Education Core course | | 3 |
| | Hours | 17 |
| Senior Year | | |
| First Semester | | |
| IE 461 | Safety Engineering | 3 |
| IE 467 | Discrete Event Computer Simulation Application | 3 |
| IE 471 | Operations Research I | 3 |
| IE 473 | Stochastic Processes and Queuing Models | 3 |
| MGMT 350 | Business and Its External Environment | 3 |
| General Education Core course | | 3 |
| | Hours | 18 |
| Second Semester | | |
| MGMT 495 | Competitive Strategy | 4 |
| IE 463 | Plant Layout and Materials Handling | 3 |
| IE 466 | Production Planning and Inventory Control | 3 |
| IE 472 | Operations Research II | 3 |
| IE 499 | Professional Development Seminar | 0 |
| Elective outside Major Rubric | | 2 |
| | Hours | 15 |
| | Total Hours | 128 |

^a ENGR 100 is one-semester-hour course, but the hour does not count toward the total hours required for graduation.