INDUSTRIAL ENGINEERING - BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING

Requirements (126 credits)

In addition to the university requirements for graduation, a student must have a 2.0 grade-point average in all departmental courses.

General Education

State of New Mexico Common Core

Area I: Communications
ENGL 111G Rhetoric and Composition 4
ENGL 218G Technical and Scientific Communication 3
Oral Communications Elective 1

Area II: Mathematics
MATH 191G Calculus and Analytic Geometry I 4

Area III: Natural Sciences
CHEM 111G General Chemistry I 4
PHYS 215G Engineering Physics I 3
PHYS 215GL Engineering Physics I Laboratory 1

Areas IV & V: Social and Behavioral Sciences & Humanities and Fine Arts
Select 15 total credits from Area IV and V, with at least 6 credits from each area:

Area IV: Social and Behavioral Sciences:
Select 6-9 credits from Economics, Political Science, Psychology, Sociology and Anthropology electives 1

Area V: Humanities and Fine Arts:
Select 6-9 credits from History, Philosophy, Literature, Art, Music, Dance, Theater, and Religion electives 1

Institution Specific General Education

Viewing a Wider World Electives 1 6

Program Specific Requirements

Mathematics
MATH 192G Calculus and Analytic Geometry II 4
MATH 291G Calculus and Analytic Geometry III 3
MATH 392 Introduction to Ordinary Differential Equations 3
MATH 480 Matrix Theory and Applied Linear Algebra 3

Natural Science Electives 7
CHEM 112G or PHYS 216G/216GL General Chemistry II Engineering Physics II

Choose one of
GEOL 111G Introductory to Geology
BIOL 211G Cellular and Organismal Biology
PHYS 217 Heat, Light, and Sound

Engineering
C E 233 Mechanics-Statics 3
or M E 236 Engineering Mechanics I
CHME 361 Engineering Materials 3

ENGR 100 Introduction to Engineering 3
M E 159 Graphical Communication and Design 2
Engineering Electives (choose one 3 credit engineering course numbered 300 and above) 6

Choose one from the following:
C E 234 Mechanics-Dynamics 3
C E 301 Mechanics of Materials
E E 201 Electric Circuit Analysis
M E 234 Mechanics-Dynamics
M E 237 Engineering Mechanics II
M E 240 Thermodynamics

Industrial Engineering
I E 151 Computational Methods in Industrial Engineering 3
I E 217 Manufacturing Processes 2
I E 217 L Manufacturing Processes Laboratory 1
I E 311 Engineering Data Analysis 3
I E 316 Methods Engineering 3
I E 351 Applied Problem Solving in Industrial Engineering 3
I E 365 Quality Control 3
I E 413 Engineering Operations Research I 3
I E 423 Engineering Operations Research II 3
I E 424 Manufacturing Systems 3
I E 451 Engineering Economy 3
I E 460 Evaluation of Engineering Data 3
I E 467 Discrete-Event Simulation Modeling 4
I E 478 Facilities Planning and Design 3
I E 480 Senior Design 3

Total Credits 126

1 See the required courses (http://catalogs.nmsu.edu/nmsu/essential-information-students/general-education-courses) section of the catalog for a full list of courses.
2 Students must complete 15 total credits from Area IV and V, with at least six credits from each area.

Recommended Freshman Year

Course Title Credits

Freshman
CHEM 111G General Chemistry I 4
ENGL 111G Rhetoric and Composition 4
ENGR 100 Introduction to Engineering 3
I E 151 Computational Methods in Industrial Engineering 3
M E 159 Graphical Communication and Design 2
MATH 191G Calculus and Analytic Geometry I 4
MATH 192G Calculus and Analytic Geometry II 4
PHYS 215G Engineering Physics I 3
PHYS 215GL Engineering Physics I Laboratory 1
Area V: Humanities and Fine Arts 3
<table>
<thead>
<tr>
<th>Area IV: Social/ Behavioral Sciences</th>
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<tbody>
<tr>
<td>Credits</td>
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