

Bachelor of Science in Manufacturing and Design Engineering Effective Fall 2013

Mathematics (4 courses)

Math 220, 224, 230, 234

Eng Analysis and Computer Proficiency (4 courses)

Gen Eng 205-1,2,3,4 Engineering Analysis

Basic Sciences (4 courses)

Physics 135-2 and 135-3

Plus 2 Chemistry courses

Design and Communications (3 Courses)

DSGN 106-1,2 (.5 each) plus English 106-1,2 (.5 each)

Gen Cmn 102 or 103

Basic Engineering (5 courses)

Systems engineering and analysis: IEMS 326

Materials science: Mat Sci 201

Fluids and solids: Civ Env 216

Electrical Science: ME 233

One additional course from the current approved list of Basic Engineering courses (see catalog)

Social Sciences-Humanities (7 courses)

Unrestricted Electives (5 courses)

Manufacturing and Design Core (10 courses)

IEMS 201 Introduction to Statistics

or IEMS 303 Statistics I

IEMS 310 Operations Research

IEMS 305 Statistical Methods for Quality Improvement

or IEMS 307 Quality Improvement by Experimental Design

DSGN 386 Manufacturing Engineering Design

IEMS 382 Production Planning and Scheduling

Mat Sci 318 Materials Selection

Mech Eng 240 Intro. to Mechanical Design and Manufacturing

Mech Eng 340-1 Computer-Integrated Manufacturing

Mech Eng 340-2 or -3 Computer-Integrated Manufacturing

DSGN 308 Human Centered Product Design

or Mech Eng 315 Theory of Machines - Design of Elements

Design Project (2 courses)

DSGN 384-1 Interdisciplinary Design Project I

DSGN 384-2 Interdisciplinary Design Project II

Technical Electives (4 courses)

At least two courses must be from the list of approved MaDE technical electives

The remaining two courses may be any 300-level or higher engineering courses.

All students must have 18 engineering credits (see

http://abet.mccormick.northwestern.edu/course_partitioning.php)

Technical Electives

For a current list of approved technical electives, contact Debbie Labeledz at 847-467-1604 or www.segal.northwestern.edu/made. A maximum of two technical electives may be taken P/N.

Dual Degree Programs

To receive two engineering degrees, students must have a total of 54 credits instead of 48.