

# Major: Operations Research and Engineering

Accredited by ABET (see inside front cover.)

Offered by: **School of Operations Research and Industrial Engineering**  
206 Rhodes Hall, 255-4856, [www.orie.cornell.edu](http://www.orie.cornell.edu)

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## Engineering Distributions

ENGRD 270 Basic Engineering Probability and Statistics (required)  
ENGRD 211 Computers and Programming<sup>1</sup>

## Required Major Courses

OR&IE 310 Industrial Systems Analysis  
OR&IE 320 Optimization I  
OR&IE 321 Optimization II  
OR&IE 350 Financial and Managerial Accounting  
OR&IE 360 Engineering Probability and Statistics II  
OR&IE 361 Introductory Engineering Stochastic Processes I  
OR&IE 580 Simulation Modeling and Analysis

## Electives

A behavioral science (organizational behavior) course

At least 9 credits of OR&IE electives

At least 9 credits of major-approved electives, with at least 3 credits from outside OR&IE<sup>2</sup>

At least 6 credits of approved electives

At least one of the courses taken must satisfy the technical writing requirement

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<sup>1</sup>ENGRD 211 is required by the Major. It is recommended that this course be counted as an engineering distribution.

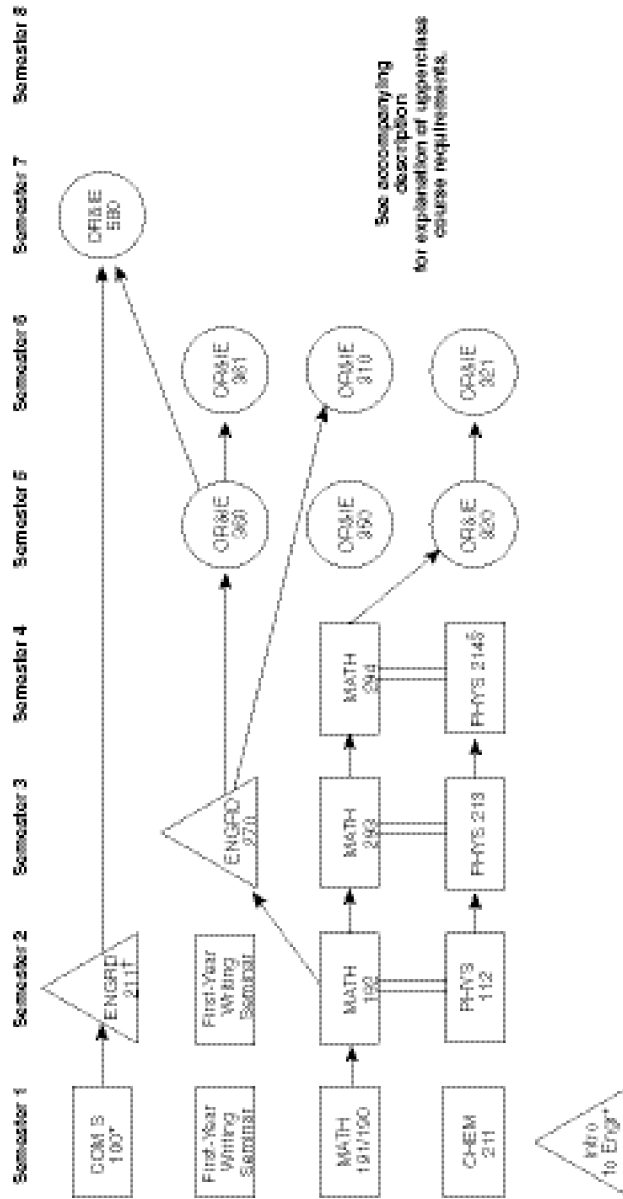
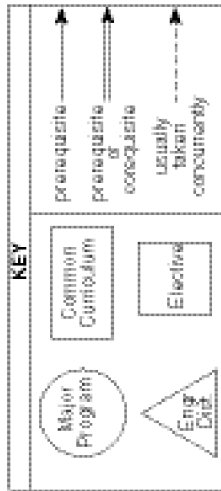
<sup>2</sup>All ENGRD courses may count as Major-approved electives. A complete list of Major-approved electives can be obtained in 202 Rhodes Hall

# OPERATIONS RESEARCH AND ENGINEERING (ORE)

\* May be taken in semester 1 or 2

† May be taken in semester 2 or 3

§ ORE 81208 may be used in place of PHYS 214



## Operations Research and Engineering Major Checklist\*

	<i>Min.</i> <i>Credit Hours</i>	<i>✓ When Done</i>
MATH 191 (or 190)	4	n
MATH 192	4	n
MATH 293	4	n
MATH 294	4	n
CHEM 211 (or 207 or 215)	4	n
PHYS 112 (or 116)	4	n
PHYS 213 (or 217)	4	n
PHYS 214 (or 218 or CHEM 208 or 216)	4	n
COM S 100	4	n
Intro. to Engr. (ENGR1 1XX)	3	n
Engr. Dist. 1: ENGRD 270	3	n
Engr. Dist. 2: ENGRD 211** (recommended)	3	n
First-Year Writing Seminar 1†	3	n
First-Year Writing Seminar 2	3	n
Liberal Studies Distribution—6 courses (18-credit minimum)‡		
Lib. Studies 1: Humanity/History		n
Lib. Studies 2: Humanity/History		n
Lib. Studies 3		n
Lib. Studies 4		n
Lib. Studies 5		n
Lib. Studies 6		n
Approved Elective (2 courses; 6-credit minimum)		n
Approved Elective		n
Physical Education (2 semesters) and swim test		
<b>Required Major Courses (49-credit minimum)§</b>		
OR&IE 310	4	n
OR&IE 320	4	n
OR&IE 321	4	n
OR&IE 350	4	n
OR&IE 360	4	n
OR&IE 361	4	n
OR&IE 580	4	n
Behavioral Science (organizational behavior)	3	n
OR&IE Elective	3	n
OR&IE Elective	3	n
OR&IE Elective	3	n
Major-Approved Elective-Non-OR&IE	3	n
Major-Approved Elective	3	n
Major-Approved Elective	3	n
Total Required Credits	124 min.	_____
Additional Elective Courses (0 credits min., no max.)		

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†In addition to the first-year writing seminars, a technical writing course must be taken as an engineering distribution, liberal studies or approved elective.

‡Approved courses must be chosen from at least three of the following six groups: (1) Cultural Analysis (CA), (2) Historical Analysis (HA), (3) Literature and the Arts (LA), (4) Knowledge, Cognition, and Moral Reasoning (KCM), (5) Social and Behavioral Analysis (SBA), (6) Foreign Languages (not literature courses). At least two courses must be from the first three groups (CA, HA, LA). At least two of the six courses must be at 200-level or higher.

§The required 9 credits of Major-complementary courses (outside the Major) are ENGRD 211, the behavioral science, and one Major-approved elective course.

\*\*ENGRD 211 is required by the Major. It is recommended that this course be counted as an engineering distribution.

Note: This engineering checklist is formatted to conform to the general specifications of the College of Engineering. We strongly recommend that you visit 202 Rhodes Hall for an official Operations Research and Engineering checklist.