OPERATIONS RESEARCH AND MANAGEMENT SCIENCE MINOR

College of Engineering

Program Website (https://www.engineering.cornell.edu/orie/minor/)

Program Description

This minor is open to all students except majors in Operations Research & Engineering (ORIE) and Information Science, Systems, and Technology (ISST).

The minor exposes students to the rational basis for decision making through understanding and modeling complex situations. Students use this understanding to predict system behavior and improve system performance. Students have the opportunity to obtain a wide exposure to the core methodological tools used in OR/MS including mathematical programming, stochastic and statistical models, and simulation.

The objective of the minor is for students to obtain a broad knowledge of these fundamentals versus training students in one specific domain. Students are able to adjust the selection of their advanced courses in the minor to pursue areas—either methodological or application oriented—of greatest interest to their educational goals.

Academic Standards

- At least C- in each course in the minor.
- GPA ≥ 2.0 for all courses in the minor.

Minor Requirements

At least six courses (≥ 18 credits), chosen as follows:

Code	Title	Hours
Core Courses		
Select at least three of the following:		
ENGRD 2700	Eng Probability and Statistics: Modeling and Data Science	
ORIE 3300	Optimization I	
ORIE 3310	Optimization II	
ORIE 3500	Eng Probability and Statistics: Modeling and Data Science II	
ORIE 3510	Stochastic Processes for Decision-Making	
ORIE 4580	Simulation Modeling and Analysis	
Elective Courses		
Three courses chosen from either the core courses above, or any ORIE courses at the 3000 level or higher. [1]		

[1] At most three of these credits can be satisfied ORIE 4900 Undergraduate Research in ORIE, ORIE 4999 ORIE Project, and ORIE 4990 Teaching in ORIE combined.

Graduation Requirements for Engineering Minor Degree Programs
Requirements

Students may pursue minors in any department in any college that offers them, subject to limitations placed by the department offering the minor or by the students' major. Completed minors will appear on the student's transcript. Not all departments offer minors. Additional information on specific minors can be found above, in the *Engineering Undergraduate Handbook*, in the undergraduate major office of the department or school offering the minor, and in Engineering Advising.

An engineering minor recognizes formal study of a particular subject area in engineering normally outside the major. Students undertaking a minor are expected to complete the requirements during the time of their continuous undergraduate enrollment at Cornell. Completing the requirements for an engineering minor (along with a major) may require more than the traditional eight semesters at Cornell. However, courses that fulfill minor requirements may also satisfy other degree requirements (e.g., distribution courses, advisor-approved, or major-approved electives), and completion within eight semesters is possible.

An engineering minor requires:

- successful completion of all requirements for an undergraduate degree.
- enrollment in a major that approves participation in the minor.
- satisfactory completion of six courses (at least 18 credits) in a college-approved minor.

Students may apply for certification of a minor at any time after the required course work has been completed in accordance with published standards. An official notation of certification of a minor appears on the Cornell transcript following graduation.