Photo credit: Noah Berger

CONNECT WITH US

Cal Day
Come to UC Berkeley's annual **Open House** in April for information sessions, campus tours, special talks, and more.

Golden Bear Orientation
Join your peers in the campus-wide UC Berkeley **orientation** program for all new students.

Events
Attend department events with students, faculty, and staff. Visit **ieor.berkeley.edu** for news and updates.

ADVISING

ORMS students are assigned to faculty advisors in the IEOR department. Before the enrollment period for each semester, students meet with their faculty advisors to discuss their tentative schedule of classes.

The Undergraduate Advisor for ORMS is also available for advising on academic matters, including academic difficulty, change of major/double majors/simultaneous degrees, withdrawal/readmission, degree completion, education abroad, academic progress, and petitions and exceptions. Contact the Undergraduate Advisor at **ieor-student-services@berkeley.edu**.

HOW TO USE THIS MAP

Use this map to help plan and guide your experience at UC Berkeley, including academic, co-curricular, and discovery opportunities. Everyone's Berkeley experience is different and activities in this map are suggestions. Always consult with your advisors whenever possible for new opportunities and updates.

Visit **ue.berkeley.edu/majormaps** for the latest version of this major map.

Berkeley
Industrial Engineering and Operations Research
4141 Etcheverry Hall
Berkeley, CA 94720-1777
ieor.berkeley.edu

OPERATIONS RESEARCH AND MANAGEMENT SCIENCE
Bachelor of Arts

Berkeley
UNIVERSITY OF CALIFORNIA

INTRODUCTION TO THE MAJOR

The **Operations Research and Management Science** (ORMS) major provides a solid foundation in the quantitative, model building, and problem-solving skills of operations research and management science. The major is very math intensive and is appropriate for students who enjoy and are good at mathematics, computers, and solving practical, multidisciplinary problems.

The ORMS major is designed for students in the College of Letters & Science and is administered by the Department of Industrial Engineering and Operations Research (IEOR) in the College of Engineering. The department also offers a major and minor in **IEOR**, as well as a combined **Bachelor's-Master's program**.

Photo credit: IEOR

> ❝ *The IEOR community is vibrant, bright and supportive, which allowed me to navigate through my undergraduate career and find my passion.* ❞
> – *Zilan (Eleanor) Yuan, ORMS Class of 2020*

ADMISSION TO THE MAJOR

To be considered for admission to the ORMS major, students should have a minimum 3.2 overall GPA in the prerequisite courses. The major is impacted and applications are submitted by invitation only. Visit **ieor.berkeley.edu/academics/ba-orms/** for more information.

We recommend students apply during the semester that they are completing their final prerequisite courses or prior to the accumulation of 80 units (not including high school units). For most students, this is typically at the end of their sophomore year. For transfer students, you must apply at the end of your first semester at UC Berkeley.

AMPLIFY YOUR MAJOR

- Get involved in a student organization such as the **Engineering and Project Management Society** and **Institute of Industrial Systems Engineers** (IISE).
- Take a Challenge Lab course such as IEOR 185.
- Enrich your studies with the **Sutardja Certificate in Entrepreneurship and Technology**.
- Participate in the **ORMS honors program** by completing an original research project or graduate-level coursework in ORMS.

OPERATIONS RESEARCH AND MANAGEMENT SCIENCE

Bachelor of Arts

DESIGN YOUR JOURNEY

	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Explore your major	Meet with your major and **college advisor** to discuss your academic plans. Review **major** and **college requirements**. Talk to the **ORMS advisor** about department programs and research opportunities.	Complete lower division prerequisites and **apply to the major**. Plan now for a **certificate, course thread,** or **summer minor**. Review major guidelines for study abroad.	Focus on upper division requirements and electives such as machine learning (IEOR 142) or production systems analysis (IEOR 150). Review your degree progress with your major and college advisors. Take a Challenge Lab course (IEOR 185), **Data X** (IEOR 135) or another project-based class.	Do a **degree check** to ensure you are on track to graduate. Complete any "bucket list" courses and remaining **major, college,** and **campus requirements**. If eligible, take part in the **ORMS honors program**. Consider applying for the **IEOR-ORMS Masters Program**.
Connect and build community	Get 1:1 mentoring with **Berkeley Connect**. Find study groups, tutoring, and academic support at the **Student Learning Center**. Take advantage of STEM community and resources from programs like **Cal NERDS**.	Join a student organization such as **Engineering and Project Management Society**. Follow the IEOR department on **Facebook** and **Instagram** and start attending **department events**. Get to know professors and graduate student instructors during their office hours.	Apply to the **Data Science Education Program** and participate in one of the student teams. Consider becoming a **Golden Bear Orientation Leader** and welcome new students to UC Berkeley. Check out **Alpha Pi Mu**, the Industrial Engineering Honor Society.	Join a professional association such as the **Institute of Industrial Systems and Engineering**. Connect with **IEOR alumni** and build your **network** as you prepare to graduate. Follow up with your past professors and ask what you can do to help them as an ORMS alumnus.
Discover your passions	Discover new interests in a **Freshman Seminar, L&S 1**, or a student-run **DeCal course**. Attend the Undergraduate Research and Scholarships Fair in October. Learn how to get involved in research on campus with **Undergraduate Laboratory at Berkeley**. Broaden your perspective by attending **Newton Series** or **View from the Top** lectures.	Enroll in a **Sophomore Seminar, Big Ideas Course** or **Discovery Course**. Learn about **research** taking place within the IEOR department. Assist faculty in their research through **URAP**. Enjoy teaching? Explore a career in education while gaining teaching skills with **CalTeach**.	Apply for a research opportunity if you haven't done so already. Explore entrepreneurship through the **Sutardja Center** and **Skydeck**. Consider earning the **Sutardja Certificate in Entrepreneurship and Technology**.	Teach your own **DeCal course**. Undertake an optional honors thesis or independent study. Keep pursuing your interests through a **fellowship** or gap year after graduation.
Engage locally and globally	Attend the **Calapalooza** student activities fair and get involved with a student organization. Find service opportunities through the **Public Service Center**. Explore study, internship, and research abroad options with **Berkeley Study Abroad**.	Work with a community organization in an **American Cultures Engaged Scholarship course**. Go on a service-learning trip with the **Alternative Breaks Program**. Engage in STEM education and mentorship of local youth with **Bridging Berkeley, Expand Your Horizons,** or **SENDforC**.	Experience life at another UC or college on a **visitor and exchange program**. Study and intern in Washington D.C. with **UCDC** or **Cal in the Capital**. Consider a **Berkeley Global Internship** in the United States or abroad.	Hone your leadership skills with the **Peter E. Haas Public Service Leaders program**. Interested in a public service career? Apply for the **John Gardner Fellowship**. Explore service opportunities after graduation, such as **Peace Corps, Teach for America,** or **U.S. Department of State**.
Reflect and plan your future	Visit **Berkeley Career Engagement** and the **Career Counseling Library**. **Develop a plan** for getting career ready. Sign up for **Handshake** and **CareerMail**. Explore **career fields** in the **Career Connections Networking Series** or a winter **externship**.	Reflect on your education so far and continue to set goals for yourself. Discuss career options and goals with a **Career Educator**. Think about doing an **internship** and attend an **internship fair**. Learn about **graduate and professional school**. See **Step-by-Step** for planning help.	Update your resume and **LinkedIn** profile. Discuss post-graduate options with advisors and professors. Attend **career and graduate school fairs** such as the STEM Career & Internship Fair. Ask professors and graduate student instructors for recommendation letters.	Utilize **job board tools** in your job search. Browse job listings on the department **website**. Meet employers at **Employer Info Sessions** and **On-Campus Recruiting**. Apply to jobs, graduate school, and other opportunities.

WHAT CAN I DO WITH MY MAJOR?

The IEOR major prepares students for technical careers analyzing a broad array of systems-level decision problems concerned with economic efficiency, productivity, and quality. It provides a strong foundation for those headed for operations management positions or for those intending to go on to specialized graduate study in operations research, analytics, or business administration.

Jobs and Employers

Analyst, Cornerstone Research
Analyst, WI Harper Group
Consultant, Applied Predictive Technologies
Digital Risk Solution Associate, PwC
Software Development Engineer, Amazon
Software Engineer, Google
Technology Analyst, Deloitte

Graduate Programs

Business, Masters
Computational Math., Masters
Computer Science, Masters, PhD
Economics, PhD
Engineering Science, Masters
Industrial Engineering, Masters, PhD
Operations Research, Masters

Examples gathered from the **First Destination Survey** of recent Berkeley graduates.

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