

OPERATIONS RESEARCH

Operations research (OR) is the discipline of applying advanced analytical methods to help make better decisions. It uses mathematical modeling, analysis, and optimization in a holistic approach to improving our knowledge of systems and designing useful, efficient systems. Its applications range from engineering to management, and from industry to the public sector.

Operations research has helped advance the mathematics of optimization, applied probability, and statistics. OR researchers, collaborating with colleagues in related fields, have created innovative methods for pricing goods and services, and for marketing them. They have contributed to improving transportation, developing new financial instruments and auctions, and analyzing biological and medical information, as well as many more areas. In today's complex and interconnected world, the rigorous techniques and methodologies of operations research have become especially important aids to informed decision making.

The Operations Research Center (ORC) (<https://catalog.mit.edu/mit/research/operations-research-center>) coordinates a PhD degree and SM degree in operations research, providing a strong background in OR theory as well as the practical techniques used in building models for a wide variety of applications. In addition, the ORC, in collaboration with the Sloan School of Management, offers a specialized one-year Master of Business Analytics (MBAn) (<http://mitsloan.mit.edu/master-of-business-analytics>).

Founded as an interdepartmental program, the Operations Research Center has maintained its interdisciplinary roots. Its faculty comes from nine different departments at MIT, including the Sloan School of Management, five of the engineering departments, the Department of Mathematics, the Department of Economics, and the Department of Urban Studies and Planning.

For more information about the Operations Research Center and its degree programs, visit the website (<http://web.mit.edu/orc/www>) or contact Laura Rose (lrose@mit.edu), Room E40-107, 617-253-9303. Request information on the MBAn program via email (BusinessAnalytics@mit.edu).