

MATH/STAT COLLOQUIUM

The World of Mathematics and Statistics



BRIAN DENTON

DEPARTMENT OF INDUSTRIAL AND
OPERATIONS ENGINEERING
UNIVERSITY OF MICHIGAN

Operations Research: Using Math, Statistics, and Data for the Common Good

Operations Research (OR) is a branch of applied mathematics that uses mathematical models for decision-making in many contexts, including healthcare, mobility & transportation, public policy, supply chain management, energy & sustainability, and many others. As a field, it integrates mathematics, statistics, and computer science, to address human-centered socio-technical problems. This presentation will give examples illustrating how OR has helped address critical societal problems using calculus, linear algebra, probability & statistics, and graph theory. Healthcare will serve as the motivating context of OR methods drawing from applications such as cancer diagnosis, organ transplants, and vaccination planning. Tips for learning more about the field of OR and its application to areas beyond health, as well as future career opportunities, will be shared.

Tuesday, March 14
4:15pm Refreshments, 4:30pm Lecture
SC 199