JOHNS HOPKINS
WHITING SCHOOL of ENGINEERING

Department of Civil and Systems Engineering

## GRADUATE SEMINAR

# Residency Block Scheduling: A Case Study in Using Integer Programming within a Healthcare Setting

**Amy Cohn – Thurnau Professor, Department of Industrial and Operations Engineering, University of Michigan**

Within the healthcare setting, there are many problems where traditional operations research techniques such as integer programming can add significant value. Applying these techniques successfully, however, requires a deep understanding of the problem domain, an ability to communicate effectively with non-technical clinical partners, and a new way of thinking about "optimality." I will present a real-world case study on building block schedules for the University of Michigan Medical School and discuss these issues within that context.

**Amy Ellen Mainville Cohn** is an Alfred F. Thurnau Professor in the Department of Industrial and Operations Engineering at the University of Michigan, where she also holds an appointment in the Department of Health Management and Policy in the School of Public Health. Dr. Cohn is the Faculty Director of the Center for Healthcare Engineering and Patient Safety (CHEPS). She holds an A.B. in applied mathematics, magna cum laude, from Harvard University and a PhD in operations research from the Massachusetts Institute of Technology. Her primary research interests are in applications of combinatorial optimization, particularly to healthcare and aviation, and to the challenges of optimization problems with multiple objective criteria.

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12 - 1:15 PM
https://wse.zoom.us/j/91421546814?pwd=bGl3MU9MNjNEUytHNS9WUEJJZ3V5QT09