

Healthcare System Operations, Minor

The objective of the minor in healthcare system operations is to prepare students to apply industrial and systems engineering methods in healthcare applications. Distinct from other service industries, healthcare systems are characterized by extensive complexities driven by communication between and interdependencies among multiple actors, and the need to simultaneously address multiple competing objectives pertaining to economic, quality-driven, individual-driven, and population-driven goals. This minor will benefit students by highlighting the unique features of this industry and methods for addressing its unique challenges to engineer improvements to the design, operation, and management of healthcare systems.

Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Required Courses

At most, one course from the minor may be counted toward major requirements.

| Code | Title | Hours |
|--------------------------------|--|-------|
| Required Courses | | |
| IE 5617 | Lean Concepts and Applications | 4 |
| IE 5400 | Healthcare Systems Modeling and Analysis | 4 |
| or IE 3500 | Introduction to Healthcare Systems Engineering | |
| PHTH 1260 | The American Healthcare System | 4 |
| Electives | | |
| Complete one of the following: | | 4 |
| PHTH 4511 | Healthcare Management | |
| PHTH 5226 | Strategic Management and Leadership in Healthcare | |
| PHTH 5232 | Evaluating Healthcare Quality | |
| NRSG 5121 | Epidemiology and Population Health | |
| IE 5374 | Special Topics in Industrial Engineering (System Dynamics in Healthcare) | |
| IE 5500 | Systems Engineering in Public Programs | |
| IE 5640 | Data Mining for Engineering Applications | |

GPA Requirement

2.000 GPA required in the minor