Professional Masters Program in

# HEALTHCARE SYSTEMS ENGINEERING

**Optimizing Healthcare** 





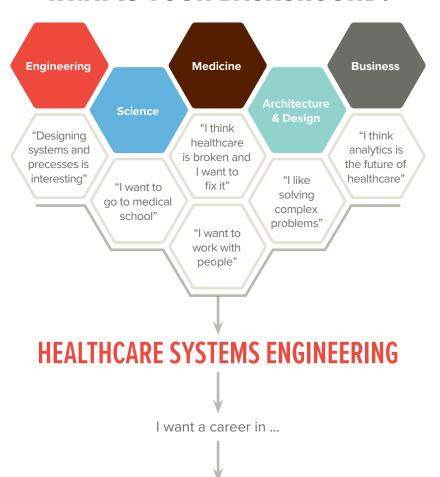


## WHAT IS HEALTHCARE SYSTEMS ENGINEERING?

Healthcare systems engineering is an emerging cross-disciplinary field that leverages systems thinking tools and engineering methodologies to measure and improve the performance of complex healthcare systems. It is what the Institute of Medicine, the Agency for Healthcare Research on Quality, the National Institute of Health and the National Science Foundation constantly advocate to increase efficiency, decrease costs, reduce errors, and to improve access and the overall value of care.

With training in healthcare systems engineering, you will be able to use analytics, operations research, quality improvement, and a deep understanding of healthcare to analyze, design and manage complex processes and systems. You will work in multi-disciplinary teams, and take on challenges in many different areas of healthcare, leading value creation and developing innovative care systems.

## WHAT IS YOUR BACKGROUND?



OPTIMIZATION EXECUTIVE ENTREPRENEURSHIP ANALYTICS PROCESS PROJECT MANAGEMENT IMPROVEMENT ADMINISTRATION LEADERSHIP CONSULTING MEDICINE OPERATIONS

THE HEALTHCARE SYSTEMS ENGINEERING PROGRAM

## Masters in Healthcare Systems Engineering

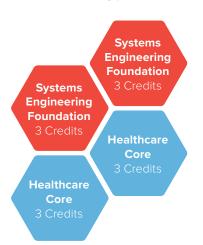
30 credits = 10 courses

#### The Curriculum

- · Systems-based perspective
- · Analytical focus
- · Project-based learning
- · Multi-disciplinary approach

#### The Experience

- · On campus and/or online
- · Part-time or full-time
- Integrated professional mentoring and career coaching
- Access to a robust network of alumni & industry partners





## Certificate in Healthcare Systems Engineering

#### 12 credits = 4 courses

- Fully integrated with and transferable to the Masters program
- Can be combined with other areas of study

#### **How Will You Benefit?**

You will graduate with a versatile skillset that will enable you to design, plan, manage, and lead the most complex healthcare processes, teams, and systems. This will lead to rewarding career opportunities in many areas of healthcare and allow you to create an impact on a larger scale. Ultimately, you will be ideally positioned to improve quality, streamline processes, and increase efficiency in the constantly changing healthcare system.

WHAT SETS US APART?

The Healthcare Systems Engineering program is rooted in Lehigh's world-class Department of Industrial and Systems Engineering. We benefit from very strong relationships with our industry partners and integrate professional and career development opportunities throughout the program.

### **Industry Engagement**

Students collaborate with partnering institutions to complete a semester-long capstone project, solving a real-world problem in the healthcare space. Our industry partners benefit from novel solutions while collaborating with faculty to provide mentorship to the students.

### **Industry Partners**

Some of our collaborators include:

- Geisinger
- NY Presbyterian Hospital
- Mayo Clinic
- · American Hospital of Dubai
- · Fox Chase Cancer Center
- VA Medical Center
- Thomas Jefferson University Hospital
- · Lehigh Valley Health Network
- · St. Luke's University Health Network
- · Coordinated Health
- B. Braun Medical
- · Bayada Home Health Care

Learn more at hse.lehigh.edu



