

# EXECUTIVE MASTER OF SCIENCE IN HEALTH SYSTEMS



Photo: Daniel Schwen



## EARN YOUR MS DEGREE IN 12 MONTHS IN MANHATTAN


**1**

Prepare for leadership roles in transforming healthcare delivery systems

**2**

Learn to identify and solve efficiency and effectiveness problems in healthcare systems using engineering techniques, data analytics and process improvement methods

**3**

Learn from experienced faculty members with proven track records in the field

### PURSUE A CAREER IN:

- Healthcare institutions
- Universities and medical centers
- Manufacturers of healthcare products
- Pharmaceutical companies
- Architectural and construction firms
- Management consulting firms
- Health insurance companies
- Research and planning organizations
- Government and nonprofit agencies

### HEALTH SYSTEMS ENGINEERING

The disciplines of industrial and systems engineering and systems science play a significant role in improving the efficiency and effectiveness of healthcare systems.

Over the years, they have helped healthcare facilities improve total-quality management, scheduling and sequencing in outpatient clinics, and operational controls, such as medical records and patient turnaround time in emergency rooms, to name a few. With the ultimate goal of continuous process improvement, the research methodology looks at current patient and work flow, identifies bottlenecks and then proposes solutions and recommendations, using a variety of tools, such as modeling and simulation, problem solving, statistical analysis, lean six sigma, operations research, human factors engineering and data mining.

## SATURDAY CLASSES – PERFECT FOR WORKING PROFESSIONALS!

### PROGRAM INFORMATION

This rare and in-demand program which applies systems engineering to healthcare:

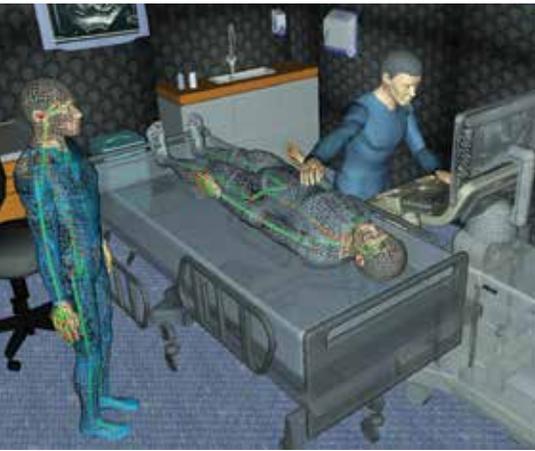
- takes only 12 months to complete (next cohort begins in August)
- comprises lectures, group activities, projects and ample classroom discussions
- meets approximately once per week, generally every Saturday between 8 a.m. and 5 p.m.
- is conveniently located in midtown Manhattan at the SUNY Global Center

A weekend program orientation is held in August on the Binghamton University main campus. Attendance is required.

This one-year program can be completed in 3 semesters.



[binghamton.edu/emshs-nyc](http://binghamton.edu/emshs-nyc)



Dr. Khasawneh and two research associates at SUNY Upstate Medical University Hospital in Syracuse

## DEGREE OFFERINGS

**Master of Science in Systems Science – Health Systems Concentration** Candidates with a baccalaureate degree in any field may apply for admission to this program.

**Master of Science in Industrial and Systems Engineering – Health Systems Concentration** Candidates with a baccalaureate degree in industrial and systems engineering or a related field may apply for admission to this program.

Based on your educational background and interest, the department will determine if your degree will be an MS in systems science or an MS in industrial and systems engineering, both with a health systems concentration.

## REQUIREMENTS FOR ADMISSION

For both master's degrees, the following requirements apply:

- a completed application, current résumé, two letters of recommendation and a personal statement
- an acceptable Graduate Record Examination (GRE) score; any request to waive the GRE requirement must be submitted with the application package (to be reviewed/approved by the graduate director)

Admission to the program is on a rolling basis; early applications are encouraged.

## HISTORY OF THE MANHATTAN PROGRAM

Binghamton University is a premier research university that has been studying health systems engineering in partnership with various domestic and international partners for more than a decade. This research ultimately translated into the classroom, where students continue to advance research in this area through the Watson Institute for Systems Excellence (WISE), an institute for advanced studies at Binghamton University.

When the concept of applying systems science and industrial engineering concepts to healthcare first reached public consciousness via national publications in the early 2000s, Binghamton University had already been informally offering specialized coursework in this arena for a number of years. By 2008, a formalized health systems concentration became officially recognized. These efforts have since expanded to provide the Executive Master of Science in Health Systems – Manhattan program; the only program of its kind, centered in New York, N.Y.

## SPONSORED BY THE BINGHAMTON UNIVERSITY ALUMNI ASSOCIATION

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**“The Executive MS for SS/ISE in Health Systems in Manhattan was one of the best decisions I could have made for my career... The faculty and SSIE department were extremely knowledgeable, flexible, and accommodating to my academic needs and professional schedule. All companies I interviewed with were very impressed with the unique degree, and within a few months of graduation I was able to attain a considerable promotion.”**

**Christina Muratore, MS-SS '14**

**“The Executive MS in Industrial and Systems Engineering Manhattan program served as a turning point in my career and jump-started my future in healthcare...The amount of relevant material I learned that I was able to use immediately was one of the great strengths of the program.”**

**Michael Wolff, MS-ISE '14**

**“The goal is to make healthcare more efficient, more effective, with higher quality and fewer errors – and, in the process, save lives.”**

**Mohammad Khasawneh**

Professor, Department of Systems Science and Industrial Engineering

## FOR MORE INFORMATION

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## BINGHAMTON UNIVERSITY

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AND APPLIED SCIENCE