

# DUAL M.S. HEALTHCARE SYSTEMS ENGINEERING/ MASTER OF BUSINESS ADMINISTRATION

The mission of the Dual Degree MS in Healthcare Systems Engineering/ MBA program is to educate professionals in the healthcare systems engineering and business disciplines to prepare graduates for leadership positions in highly complex healthcare endeavors.

The dual degree MS/MBA program will confer two degrees upon its graduates: an MBA and an MS in Healthcare Systems Engineering. Pursuing the dual degree program reduces a student's total number of required semester hours for the two degrees compared to pursuing the two degrees separately.

The dual degree MS in Healthcare Systems Engineering/MBA program is designed to be completed in approximately three years. Typically, the Healthcare Systems Engineering classes are completed first, followed by taking the required classes in the MBA program.

## Learning Outcomes

### For the Healthcare Systems Engineering M.S.

Graduates will:

- Apply the fundamental principles of Healthcare Systems Engineering to complex healthcare problems
- Become leaders of innovative healthcare projects and businesses
- Develop multidisciplinary skills to architect, design & manage complex healthcare systems throughout their life cycle
- Apply principles of systems engineering, systems thinking, project management and lean engineering to improve operational efficiency, reduce fragmentation, improve patient safety and reduce provider burnout, and apply state of the art knowledge to healthcare
- Develop technical skills to analyze, and design integrated healthcare systems

### For the M.B.A.

Graduates will:

- Possess the knowledge and skills to be able to apply key business concepts in organizational settings.
- Possess the knowledge and skills to manage in a global economy.
- Possess critical thinking skills and the ability to integrate concepts.
- Have the ability to communicate effectively.
- Have the knowledge and skills to function effectively as members, managers, and leaders in the organizations in which they are employed.
- Be able to incorporate ethical reasoning, social responsibility, and sustainability in making decisions in their organizations.

## Admissions

Both the MBA Program in the College of Business Administration and the Healthcare Systems Engineering Program in the Frank R. Seaver College of Science and Engineering must accept students applying to the dual degree program for admission. Prospective dual degree

students should apply first to the M.S. in Healthcare Systems Engineering degree program. After receiving admission to the M.S. in Healthcare Systems Engineering degree program and completing a minimum of 12 semester hours towards the M.S. degree, students interested in the MS/MBA Dual Degree program should contact the Associate Director of Academic Affairs, Graduate Business Programs, for admission to the MBA portion of the Dual Degree. Eligibility for the dual degree program is based upon good academic standing (minimum GPA 3.0) in the M.S. in Healthcare Systems Engineering program and approval from their respective Seaver College academic advisor. The preferred start term for the MBA portion of the Dual Degree program is the fall term.

The M.S. in Healthcare Systems Engineering degree program application is online at <https://graduatestudies.lmu.edu/apply> (<https://graduatestudies.lmu.edu/apply/>).

Applicants must submit:

- Official transcripts from all colleges and universities attended
- Essay demonstrating passion for healthcare
- Two letters of recommendation
- Resume
- Essay discussing how the two degrees fit into applicant's career development

## Graduation Requirements

Students enrolled in the Dual Degree MS/MBA Program are jointly advised by their academic advisor for Healthcare Systems Engineering and the MBA Program Director in the College of Business Administration. It is recommended that incoming students take 12 semester hours of Healthcare Systems Engineering courses per fall and spring semester and complete the M.S. in year one of the dual-degree program, then begin the MBA curriculum in year two.

Dual degree students will take a total of 24 semester hours of Healthcare Systems Engineering courses and 36 semester hours of MBA courses. 15 semester hours from the Healthcare Systems Engineering courses will also count towards the emphasis/concentration requirement for the MBA degree. 6 semester hours of the MBA courses that are taken as part of the MBA coursework will also count toward the M.S. in Healthcare Systems Engineering. Separately, the M.S. degree requires 30 semester hours and the MBA degree requires 51 semester hours, for a total of 81 semester hours. The Dual Degree program lessens the load by 21 (15+6) semester hours.

## Suggested Curriculum Flowchart for all Dual Degrees with Seaver College of Science & Engineering

Code	Title	Semester Hours
<b>Year 1 (Summer, Fall, and Spring) <sup>1</sup></b>		
<b>Core Courses</b>		
SYEG 510	Project Management	3
HSEG 535	Lean Healthcare	3
HSEG 605	Healthcare Systems Engineering	3
HSEG 625	Patient Safety and Quality Systems	3
HSEG 635	Advanced Lean Management of Healthcare	3
HSEG 665	Population Health and Big Data Analytics	3

HSEG 675	Healthcare Enterprise Informatics and Electronic Health Records	3	3
HSEG 695	Preparation for Capstone Project	0	
HSEG 696	Project in Healthcare <sup>2</sup>	3	
<b>Subtotal</b>		<b>24</b>	
<b>Year 2</b>			
<i>Fall Semester</i>			
MBAW 6400	MBA Orientation	2	
MBAA 6020	Financial and Managerial Accounting	3	
MBAA 6030	Global Economic Structures and Systems	1.5	
MBAA 6040	Managing Markets and Customer Relationships	3	
MBAA 6050	Managing Operations	1.5	
MBAA 6090	Managing Information Systems	3	
<i>Spring Semester</i>			
MBAA 6010	Managing People and Organizations	3	
MBAA 6060	Strategic Management	3	
MBAA 6070	Managing Financial Resources	3	
MBAA 6080	Data, Models, and Decisions	3	
MBAW 6402	The Elements of Becoming A Strategic Leader	0	
<i>Summer Session</i>			
	Business & Society Core	3	
	MBA Elective	3	
<b>Subtotal</b>		<b>32</b>	
<b>Year 3 <sup>3</sup></b>			
<i>Spring Semester</i>			
MBAA 6100	Managing International Business	3	
MBAW 6307	Management Leadership Workshop: Planning Your Future	0	
<i>Summer Session</i>			
MBAI 691	Comparative Management Systems (CMS)	3	
<b>Subtotal</b>		<b>6</b>	
<b>Total Semester Hours</b>		<b>62</b>	

1

**Note:**

HSEG 699 Independent Studies must be pre-approved by the academic advisor.

Healthcare Systems Engineering coursework may only be substituted upon obtaining approval from the Frank R. Seaver College of Science and Engineering Dean's Office.

**Total M.S. Degree Requirement: 30 semester hours**

24 semester hours + 6 semester hours from MBA, satisfying the MS degree requirement of 30 semester hours.

2

The Capstone Project, HSEG 696 Project in Healthcare, should be taken in the last Spring or Fall semester of the studies.

**Total M.S./M.B.A Degree Requirement: 51 semester hours**

36 semester hours + 15 semester hours from MS in Healthcare Systems Engineering, satisfying the MBA degree requirement of 51 semester hours.

**Notes:** When the course requirements outlined above are completed, the student should submit an application for degree to be awarded both the MBA and the MS in Healthcare Systems Engineering.

500-level courses taken as an undergraduate may not be repeated for graduate credit

If a 500-level course is cross listed with a 600 level course, graduate student must enroll in 600-level course.