

Healthcare Leadership, DMSc (Primarily Online)

Northeastern University's Doctor of Medical Science is an interdisciplinary degree designed for medical professionals to advance their education and expand their career opportunities through various healthcare concentration areas. Students from diverse healthcare backgrounds share the common goal of developing facility with healthcare systems and becoming leaders within the greater healthcare community.

In addition to taking core courses in healthcare leadership, advocacy, and research methods, students concentrate in exercise science, extreme medicine, or health informatics research. These concentrations are designed to empower graduates from diverse backgrounds with the technical and analytical expertise that is relevant and in high demand in today's healthcare environment. Students will have the opportunity to collaborate with faculty from the Department of Medical Sciences and world-renowned faculty from a variety of interdisciplinary fields within Northeastern and the greater Boston community. This collaboration allows students to access expertise and knowledge across disciplines that will culminate in the creation of an original thesis study.

This degree will take between 16 and 20 months to complete. Some courses have on-ground curriculum requirements. The exercise science and health informatics research concentrations' on-ground requirements are completed on the Boston campus. The extreme medicine concentration's on-ground experiential practicums are held in various remote locations.

Program Policies

FAILURE TO PROGRESS POLICY

Failure to progress refers to a student's inability to meet the academic requirements necessary to advance in the program as scheduled. Students who fail to progress in the program may be referred to the Department of Medical Sciences Academic Standing Committee and/or dismissed from the program.

Course Withdrawal

- Only three course withdrawals will be permitted in the program (excluding leave of absence). More than three course withdrawals will lead to dismissal from the program.
- Students who withdraw from the same course twice will be referred to the ASC.
- Students who withdraw from the same course three times will be dismissed from the program.

Course Failure

- Students will be permitted to repeat up to two failed courses (Bouvé College of Health Sciences Graduate Academic Probation Policy (<https://catalog.northeastern.edu/graduate/health-sciences/academic-policies-procedures/#text>)).
- Students who fail one course will be placed on academic probation.
- Students who fail two courses will be placed on academic probation and referred to the ASC.
- Students who fail three courses will be dismissed from the program.

Please visit Bouvé College Learning Outcomes for the specific student learning outcomes for this program.

Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

Milestones

Thesis topic approval
Thesis committee
Thesis proposal
Thesis defense

Core Requirements

A grade of B– or higher is required in each course.

Code	Title	Hours
Healthcare Leadership		
MSCI 6001	Principles of Healthcare Advocacy	3
MSCI 6002	Workforce Metrics: Measuring, Comparing, and Privileging the Interprofessional Healthcare Team ⁵	3-4
or HLTH 5800	AI Across the Health Sciences	
MSCI 6003	Healthcare Leadership Seminar	3
PHTH 6204	Society, Behavior, and Health	3
Research		
HLTH 5410	Introduction to Statistics in Health and Behavioral Science	3

MSCI 6900	Research Methods and Design	3
MSCI 6901	Doctoral Writing Seminar	3
MSCI 7990	Thesis	3

Registration in the following course is required if the thesis is not completed by the conclusion of the term of registration for MSCI 7990:

MSCI 7996	Thesis Continuation - Half-Time ¹	
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Concentrations

Completing a concentration is required to complete this program. A minimum of 12 semester hours is required.

- Exercise Science (p. 2)
- Extreme Medicine (p. 2)
- Health Informatics Research (p. 2)

Program Credit/GPA Requirements

Minimum of 36 total semester hours required

Minimum 3.000 GPA required

EXERCISE SCIENCE CONCENTRATION⁶

Code	Title	Hours
EXSC 5210	Physical Activity and Exercise: Prescription, Measurement, and Testing ⁷	3
EXSC 5220	Advanced Exercise Physiology	3
EXSC 6202	Electrocardiography, Clinical Assessment, and Prescription	3
Selective		
Complete 3 semester hours from the following:		3
EXSC 5200	Cardiopulmonary Physiology	
EXSC 5230	Physical Activity and Exercise: Effects on Musculoskeletal Health and Disease	

EXTREME MEDICINE CONCENTRATION

Code	Title	Hours
Complete a minimum of 12 semester hours.		
MSCI 5403 and MSCI 5400	Expedition and Wilderness Medicine Experience and Experiential Reflections: Bridging Theory and Experience ^{2, 4}	3
Complete a minimum of 6 semester hours from the following (students may choose additional courses from the list below and/or an optional experiential elective to meet the minimum 12-semester-hour program requirement):		6-9
MSCI 5001	Human Factors and Situational Awareness	
MSCI 5002	Crisis Resource Management and Case Studies	
MSCI 5003	Humanitarian Aid Practice and Principles	
MSCI 5004	Humanitarian and Disaster Response Ethics	
MSCI 5005	Care During Conflict	
Optional Elective Experiential Courses ³		
MSCI 5401 and MSCI 5400	Human Factors and Situational Awareness Experience and Experiential Reflections: Bridging Theory and Experience ^{2, 4}	
MSCI 5402 and MSCI 5400	Expedition and Cold Weather Medicine Experience and Experiential Reflections: Bridging Theory and Experience ^{2, 3, 4}	
MSCI 5405 and MSCI 5400	Humanitarian Medicine Experience and Experiential Reflections: Bridging Theory and Experience ^{2, 3, 4}	

HEALTH INFORMATICS RESEARCH CONCENTRATION

Code	Title	Hours
HINF 5101	Introduction to Health Informatics and Health Information Systems	3
HINF 6220	Database Design, Access, Modeling, and Security	3
HINF 6400	Introduction to Health Data Analytics	3
Selective		
Complete 4 semester hours from the following:		4

CS 6350	Empirical Research Methods
HINF 5300	Personal Health Interface Design and Development

- ¹ Students who have not completed their thesis but have already registered for the required number of thesis hours, and have no remaining coursework to complete the degree, may register for Thesis Continuation—Half-Time (MSCI 7996) in their last semester (including summer term). There is a 1-semester-hour tuition charge for Thesis Continuation—Half-Time (MSCI 7996). Thesis Continuation may be taken only once.
- ² Additional expenses may be associated with the experience courses, which are offered on-ground in a weeklong experiential format.
- ³ Some of the optional experiential learning experiences are limited to specific groups of medical or allied health professionals.
- ⁴ One semester hour of Experiential Reflections: Bridging Theory and Experience (MSCI 5400) must be completed for each experience course. Experiential Reflections: Bridging Theory and Experience (MSCI 5400) may be taken concurrently or after the associated courses.
- ⁵ Students who select AI Across the Health Sciences (HLTH 5800) (4 semester hours) vs. Workforce Metrics: Measuring, Comparing, and Privileging the Interprofessional Healthcare Team (MSCI 6002) (3 semester hours) will incur an additional 1-semester-hour cost beyond the total program credits.
- ⁶ Anatomy and Physiology I and II, or equivalent, and an exercise physiology or medical background are strongly recommended for the exercise science concentration.
- ⁷ Physical Activity and Exercise: Prescription, Measurement, and Testing (EXSC 5210) is offered online with a four-day, on-campus, hands-on lab component in a low-residency format.