

# Healthcare Simulation

Degree Offered:	M.S.
Program Director:	Michelle Brown, PhD
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## Program Overview

The Master of Science in Healthcare Simulation is designed to prepare you with leadership and quality improvement skills in healthcare simulation in order to improve patient safety, increase communication effectiveness, refine teamwork, and enhance care delivery. By developing expertise in healthcare simulation, you will be equipped with a unique skill set to impact patient outcomes in your organization through the innovation of simulation. We believe that interprofessional collaboration is fundamental in being a successful healthcare simulationist.

The curriculum is taught by faculty with a variety of clinical and educational experiences. Fellow classmates will be from diverse backgrounds who are interested in working collaboratively to improve patient care with simulation. Throughout the program, you will be challenged to think creatively and have opportunities to integrate simulation into your current practice.

## Admission Requirements

Admission requirements include eligibility for admission to the UAB Graduate School. Experience in simulation and/or the healthcare industry is preferred. Applicants must have a bachelor's degree (or higher) from an accredited college or university or from a recognized university abroad, with a minimum GPA of 3.0 in coursework.

Additional requirements include submission of a personal statement regarding interest in the program, two letters of recommendation.

Requirement	Fulfilled By:
Deadline for Entry Term(s):	Fall, Spring, Summer
Deadline for All Application Materials to be in the Graduate School Office:	August 1, December 1, May 1
International Applicants:	<a href="https://www.uab.edu/gradadmissions/apply/international-applicants">https://www.uab.edu/gradadmissions/apply/international-applicants</a>
Number of Recommendation Letters Required:	2

## Contact Information

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## Master of Science in Healthcare Simulation

The MS in Healthcare Simulation program consists of a total of 33 semester hours. Thirty semester hours are considered required core courses. The remaining 3 semester hours are elective courses chosen based on student interest and program director approval. One on-campus visit is required in the fall semester of the program.

Requirements	Hours	
HCS 575	Introduction to Healthcare Simulation for Quality and Safety	3
HCS 620	Current Trends in Simulation	2
HCS 625	Simulation Methodology	3
HCS 626	Healthcare Simulation Laboratory	1
HCS 635	Advanced Debriefing	3
HCS 640	Project Management: Leading Successful Healthcare Initiatives	3
HCS 698	Simulation Capstone/Non-thesis Research	3
HQS 600	Introduction to Clinical Quality Improvement	4
HCS 660	Financial Management for Healthcare Quality Leaders	3
HQS 630	Leadership of High Reliability Healthcare Organizations	3
HCS 610	Instructional Design in Simulation	2
Select 3 hours of elective coursework approved by the program director. <sup>1</sup>		3
<b>Total Hours</b>		<b>33</b>

<sup>1</sup> Students must take a minimum of 3 semester hours of elective courses. Program director approval is required for all elective courses

## Graduate Certificate in Healthcare Simulation

The Graduate Certificate in Healthcare Simulation meets the growing demand of healthcare simulation educators and leaders. Graduates will be able to design and implement simulations aimed at improving teamwork, communication, and clinical skills according to evidence-based practices.

## Credential Conferred

The Graduate Certificate in Healthcare Simulation is awarded by the University of Alabama at Birmingham.

## Length of Study

The certificate requires 15 credits, which can be completed in 3 semesters.

## Program Entry Term

Fall semester -- deadline for all application materials to be in the Graduate School Office: August 1, after August 1 applications will be considered on a space available basis.

## Curriculum

Our program is delivered online with one on-campus visit in the fall semester.

## Graduate Certificate in Healthcare Simulation

Requirements		Hours
HCS 575	Introduction to Healthcare Simulation for Quality and Safety	3
HCS 610	Instructional Design in Simulation	2
HCS 625	Simulation Methodology	3
HCS 626	Healthcare Simulation Laboratory	1
HCS 620	Current Trends in Simulation	2
HCS 630	Research in Simulation	1
HCS 635	Advanced Debriefing	3
<b>Total Hours</b>		<b>15</b>

### Courses

#### **HCS 575. Introduction to Healthcare Simulation for Quality and Safety. 3 Hours.**

Introductory course on origins and current applications for healthcare simulation; overview of simulation methodologies and application in education, training, quality improvement, and patient safety.

#### **HCS 610. Instructional Design in Simulation. 2 Hours.**

Instructional Design in Simulation applies the foundational concepts in the field of instructional design to the growing field of healthcare simulation. This course focuses on the processes of analysis, design, development, implementation, and evaluation as they relate to developing quality simulation learning experiences.

#### **HCS 620. Current Trends in Simulation. 2 Hours.**

Survey of emerging technologies as well as new applications and best practices in the delivery of simulation.

#### **HCS 625. Simulation Methodology. 3 Hours.**

Intensive focus on the development of simulation sequences to meet institutional priorities; emphasis on simulation case development, including debriefing and assessment strategies; teamwork and interprofessional competencies.

#### **HCS 626. Healthcare Simulation Laboratory. 1 Hour.**

Participation in simulations; application of research-based strategies for designing and implementing simulation scenarios; debriefing and developing solutions to common issues in simulation.

**Prerequisites:** HCS 575 [Min Grade: C](Can be taken Concurrently)

#### **HCS 630. Research in Simulation. 1 Hour.**

Introduction to simulation-focused research and present an overview of the current simulation evidence base.

#### **HCS 635. Advanced Debriefing. 3 Hours.**

In-depth review and application of current debriefing models in the field of simulation. Emphasis on choosing effective debriefing models for various modalities of simulation.

**Prerequisites:** HCS 625 [Min Grade: C]

#### **HCS 640. Project Management: Leading Successful Healthcare Initiatives. 3 Hours.**

Techniques for planning, scheduling, controlling, resource allocation, and performance measurement activities required for successfully completing a project.

#### **HCS 645. Simulation Modeling. 3 Hours.**

Introduction to basic concepts, approaches, and processes relevant to computer modeling in healthcare simulation environments; use of computer modeling to shorten design cycles, innovate new processes, evaluate designs, and simulate the impacts of alternative approaches relevant to healthcare environments; includes structure system analysis, model construction, data collection, and computer simulation languages.

#### **HCS 655. Population Health for Healthcare Quality Leaders. 3 Hours.**

Focuses on the foundational skills needed to work in teams to effectively collaborate in the development and implementation of population health programs aimed at improving health outcomes. Special emphasis will be on evidence-based care and patient and community engagement.

#### **HCS 660. Financial Management for Healthcare Quality Leaders. 3 Hours.**

Basic concepts in financial management; introduction to financial accounting and management accounting; emphasis on evaluating the financial impact of new programs.

#### **HCS 675. Special Topics in Healthcare Simulation. 1-4 Hour.**

Exploration of current issues in Healthcare Simulation.

#### **HCS 698. Simulation Capstone/Non-thesis Research. 1-4 Hour.**

Rigorous culminating project that provides the opportunity for focused investigation of simulation applications in a real-world setting.

Investigation and application of theory through a practical project.