

# HCS-Healthcare Simulation

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## **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.

## **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.