

Healthcare Quality and Safety

Degree Offered:	M.S.
Program Director:	Allyson Hall, PhD
Phone:	(205) 934-3509
E-Mail:	askhqs@uab.edu
Website:	www.uab.edu/hqs

Master of Science in Healthcare Quality and Safety

The Master of Science in Healthcare Quality and Safety will prepare individuals to provide leadership in the design, implementation, and evaluation of clinical and non-clinical process improvement and patient safety activities in complex healthcare environments. The program will comprise a didactic and experiential curriculum including:

- Quantitative and analytical methods and statistical process control techniques
- Quality management models such as PDSA, Lean, and Six Sigma
- Risk and patient safety assessment and management techniques
- Implementing and managing cultural and organizational change
- Team leadership and communication
- Leadership of high reliability organizations
- Integrative capstone project
- Currently working full-time in the healthcare industry

The program is housed in the Department of Health Services Administration (HSA) in the School of Health Professions. The HSA Department offers graduate degrees in health administration and health informatics, both of which include courses with leadership, quality improvement, and data analytics content, as well as a graduate degree in healthcare simulation, and a graduate certificate in Healthcare Quality and Safety (HQS).

Admission Requirements

Admission requirements include eligibility for admission to the UAB Graduate School, at least five years of relevant work experience, and currently working full-time in the healthcare industry. Applicants must have completed 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 on the last 60 hours of course work.

Additional requirements will include completion of a program-specific application showing quality or safety-related employment and previous relevant training, personal statement regarding interest in the program, three professional letters of recommendation, and prior completion of a basic statistics course.

An admissions committee comprised of, faculty, program administrators and HQS course directors will review applications and make final admission decisions based on desired cohort size. Application to the

program may be made September through May 31, preceding the expected date of enrollment for the next fall term. Applications received after May 31 are considered on a space-available basis.

Entry Term:	Fall Semester
Deadline for All Application Materials to be in the Graduate School Office:	July 1, after July 1 applications will be considered on a space available basis
Length of Study:	36 Credit Hours
Number of Evaluation Forms Required:	Three Professional Letters of Recommendation

Master of Science in Healthcare Quality and Safety and Executive Health Administration Coordinated Degree

Students wishing to pursue simultaneously the Master of Science in Healthcare Quality and Safety and the executive format of the Master of Science in Health Administration degrees must be accepted into both programs and complete twenty-eight (28) courses, including an interactive capstone experience course. A student who enters a coordinated program, but subsequently decides to pursue only one of the degrees, must satisfy all the requirements of the degree sought.

Graduate Certificate in Healthcare Quality and Safety

Prospective students should use this checklist to obtain specific admissions requirements on how to apply to Graduate School.

Degree Offered:	Graduate Certificate
Program Director:	Allyson Hall, PhD
Medical Director:	Scott Buchalter, MD
Phone:	(205) 934-3509
E-Mail:	askhqs@uab.edu
Website:	www.uab.edu/hqs

Certificate Information

The Graduate Certificate in Healthcare Quality and Safety is a unique, multidisciplinary approach to the analysis and solution of complex problems. The program, which is offered totally online, prepares clinical and administrative professionals to deploy quality- and safety-focused strategies for their organizations. HQS is a high quality, academically rigorous forum for developing the individual knowledge and skills needed to conduct clinical practice and non-clinical process improvement projects in a complex medical environment.

The certificate program, housed in the Department of Health Services Administration in the School of Health Professions, requires a combined approach using data and models from the natural, social, technological, behavioral and life sciences, and other specialized fields. The curriculum is delivered by an interdisciplinary team of faculty from the University of Alabama at Birmingham Schools of Health Professions, Nursing, Public Health and Medicine.

Certificate Options

This certificate is offered as a blended or online option.

Blended

- Students complete the 4-course certificate in an accelerated cohort: 4 months/1 semester
- Students complete 50 % of the curriculum online and 50 % face-to-face over four long weekends

Online

- Students complete the 4-course certificate over 2 semesters
- Students will take 2 courses during the fall semester and 2 courses during the spring semester.

Admission Requirements

- Undergraduate, graduate or professional degree in a health-related field and at least five years of experience in health care
- Currently working full-time in health care.
- Personal statement regarding interest in the program and the identification of a quality related project topic
- Minimum G.P.A of 3.00 or above for the past 60 hours of course work
- Non-refundable application fee of \$50, payable online
- Official transcripts of all previous academic work beyond the secondary level
- Current Resumé or CV which outlines your professional work experience

Entry Term:	Blended Option: Fall and Spring Semesters; Online Option: Fall Semester
Deadline for All Application Materials to be in the Graduate School Office:	Blended Option: July 1st or Nov 1st; Online Option: July 1st -- applications submitted after the deadlines will be considered on a space available basis
Length of Study:	15 Credit Hours

Required Coursework

Requirements	Hours
HQS 600 Introduction to Clinical Quality Improvement	4
HQS 610 Quantitative Methods, Measurement, and Tools for Quality Improvement	4
HQS 625 Fundamentals of Patient Safety	4
HQS 630 Leadership of High Reliability Healthcare Organizations	3
Total Hours	15

Healthcare Quality and Safety Certificate for Executive Master of Science in Health Administration

Students enrolled in the Executive Master of Science in Health Administration program, may pursue a graduate certificate in Healthcare Quality and Safety. To obtain the certificate, Executive MSHA students may add an online HQS certificate course in each fall and spring term, increasing their credit hours from 9 to 13. For more information, please contact the HQS or MSHA programs.

Contact Information

For detailed information, contact the Department of Health Services Administration, Healthcare Quality and Safety Program, UAB School of Health Professions, SHPB 580A, 1716 9th Avenue, Birmingham,

Alabama 35294-1212.

Telephone 205-934-3509.

E-mail [HQS \(SHRP-GCHQS@uab.edu\) askhqs@uab.edu](mailto:HQS (SHRP-GCHQS@uab.edu) askhqs@uab.edu)

Website: <http://www.uab.edu/hqs>

Graduate Certificate in Healthcare Quality and Safety

A student who receives two grades of "C", or any grade of "F" on any course taken in pursuit of the HQS Graduate Certificate will be dismissed from the program.

Requirements	Hours
HQS 600 Introduction to Clinical Quality Improvement	4
HQS 610 Quantitative Methods, Measurement, and Tools for Quality Improvement	4
HQS 625 Fundamentals of Patient Safety	4
HQS 630 Leadership of High Reliability Healthcare Organizations	3
Total Hours	15

Master of Science in Healthcare Quality and Safety

A student who receives two grades of "C", or any grade of "F" on any course taken in pursuit of the MS degree in Healthcare Quality and Safety will be dismissed from the program.

Requirements	Hours
HQS 600 Introduction to Clinical Quality Improvement	4
HQS 610 Quantitative Methods, Measurement, and Tools for Quality Improvement	4
HQS 613 Advanced Data Use in Quality Improvement and Patient Safety	3
HQS 625 Fundamentals of Patient Safety	4
HQS 630 Leadership of High Reliability Healthcare Organizations	3
HCS 640 Project Management: Leading Successful Healthcare Initiatives	3
HQS 635 Healthcare Policy and Regulation	3
HQS 655 Population Health for Healthcare Quality Leaders	3
HCS 660 Financial Management for Healthcare Quality Leaders	3
HQS 675 Evaluating and Designing Quality Improvement Models	3
HQS 698 Integrative Capstone Experience/Non-Thesis Project	3
Total Hours	36

Courses

HQS 600. Introduction to Clinical Quality Improvement. 4 Hours.

Clinical quality improvement theory; classes of outcomes; process management; management tools and modeling techniques for improvement of clinical processes and decision-making.

HQS 610. Quantitative Methods, Measurement, and Tools for Quality Improvement. 4 Hours.

Statistical process control techniques applied to clinical and patient service processes, including Lean and Six Sigma methodologies; data system design concepts applied to clinical and financial data for managing health care business processes.

HQS 612. Health Data Management and Analytics for Enterprise Performance Improvement. 4 Hours.

Managing health data across the information lifecycle; assuring data quality and integrity; data visualization and analytics techniques; health information governance.

Prerequisites: [HQS 600](#) [Min Grade: C] and [HQS 610](#) [Min Grade: C] and [HQS 625](#) [Min Grade: C] and [HQS 630](#) [Min Grade: C]

HQS 613. Advanced Data Use in Quality Improvement and Patient Safety. 3 Hours.

Applying quantitative techniques to clinical and administrative data to inform and improve healthcare quality and patient safety outcomes.

Prerequisites: [HQS 610](#) [Min Grade: C]

HQS 615. Collaborative Analytics for Quality and Safety Improvement. 3 Hours.

Survey of analytics used by HCO improvement project teams; emphasis on conceptual understanding of analytics approaches to investigate and resolve organizational quality and safety issues.

Prerequisites: [HQS 610](#) [Min Grade: C] and [HQS 612](#) [Min Grade: C]

HQS 625. Fundamentals of Patient Safety. 4 Hours.

Nature and science of medical error; strategies for design of safety-critical systems; hazard analysis and risk assessment in health care organizations; design elements of safety programs and high reliability systems.

HQS 630. Leadership of High Reliability Healthcare Organizations. 3 Hours.

Applying concepts of high reliability organizations to create an organizational culture that supports strong, functional, and safe patient care environments resulting in quality clinical care and patient satisfaction.

HQS 635. Healthcare Policy and Regulation. 3 Hours.

External drivers for quality and safety improvement in healthcare organizations, particularly policies and regulations affecting reimbursement. Discussion and analysis of key federal legislation and regulations promulgated by the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission.

Prerequisites: [HQS 600](#) [Min Grade: C] and [HQS 630](#) [Min Grade: C] and [HQS 610](#) [Min Grade: C] and [HQS 625](#) [Min Grade: C]

HQS 655. Population Health for Healthcare Quality Leaders. 3 Hours.

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.

HQS 675. Evaluating and Designing Quality Improvement Models. 3 Hours.

Application of analytical and decision tools to determine appropriate enterprise models for quality improvement, including problem identification, selection of metrics, analytical approaches, prioritization criteria, and post-implementation evaluation.

Prerequisites: [HQS 612](#) [Min Grade: C] and [HQS 635](#) [Min Grade: C]

HQS 678. Special Topics in Healthcare Quality and Safety. 1-4 Hour.

Exploration of current issues in Healthcare Quality and Safety.

HQS 698. Integrative Capstone Experience/Non-Thesis Project. 3-6 Hours.

Investigation of a process or safety improvement opportunity in a healthcare organization to propose a solution; application of the concepts and tools presented in the program courses. A written project report is required.

Prerequisites: [HQS 615](#) [Min Grade: C] and [HQS 635](#) [Min Grade: C] and [HQS 675](#) [Min Grade: C] and [HA 650](#) [Min Grade: C]