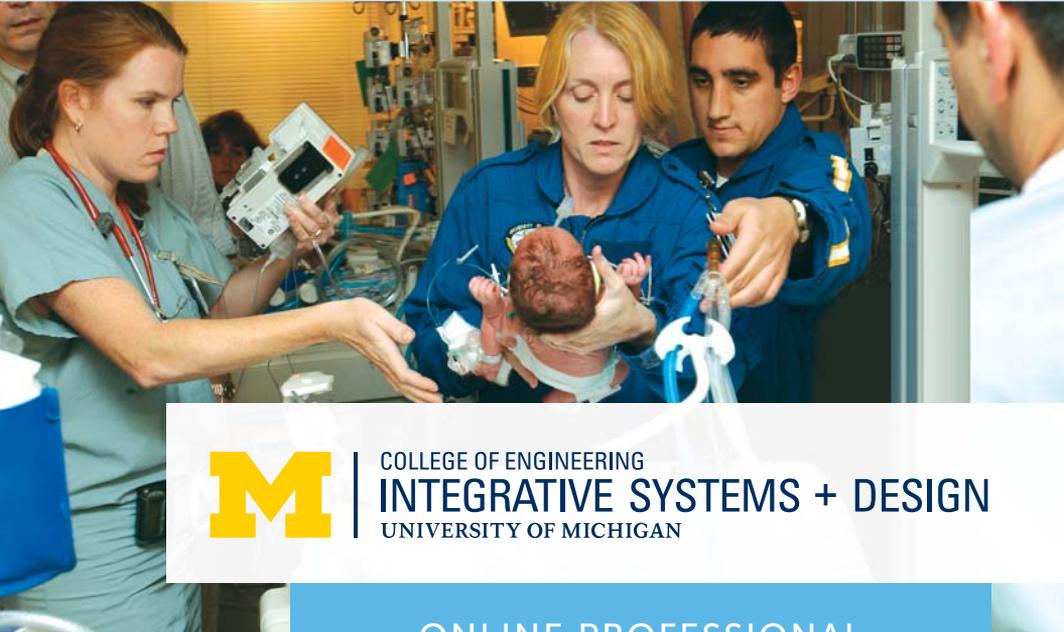# Six Sigma Green Belt Healthcare

COLLEGE OF ENGINEERING
INTEGRATIVE SYSTEMS + DESIGN
UNIVERSITY OF MICHIGAN

ONLINE PROFESSIONAL CERTIFICATION PROGRAM

Bring Increased Value to Your Healthcare Organization

Learning how to use Six Sigma's data-driven analysis and process change tools will help you improve efficiency, savings, and customer satisfaction. You will know how to frame and effectively solve quality problems in healthcare organizations at the Green Belt skill level.

Learn more and register for courses at:

**isd.engin.umich.edu/
OnlineSixSigmaGreenBeltHealthcare**

Take Process Improvement to the Next Level

An Interactive Online Experience

In addition to viewing lecture modules and completing homework exercises you can participate in student discussions, and relevant case studies to make your learning experience come alive.

Real-World Applications

Six Sigma analyses can be applied to a vast array of health system issues that also lend themselves to student projects. Examples include the following:
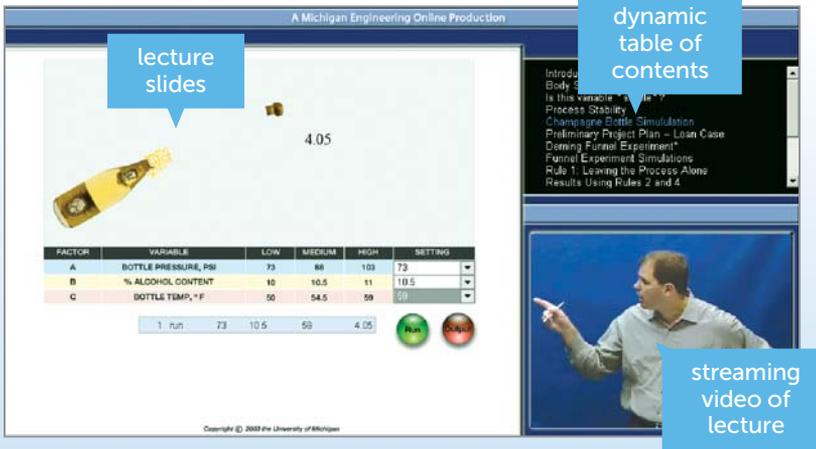
- **Patient Satisfaction:** Wait time, medical errors, length of stay, fewer patients leaving without being seen
- **Medical Operations:** Procedure quality, procedure time, equipment utilization, staff utilization, staff scheduling, diagnostic time
- **Laboratory Testing:** Efficiency, testing errors, availability capacity (patients per lab per workday)
- **Administrative:** Corrections, billing, insurance denials

Get a Free Copy of QE Tools Software

QE Tools is a highly functional, user friendly, Excel-based add-in tool designed specifically for Six Sigma. You can use QE Tools to apply the various problem-solving tools and statistical analysis methods for your Six Sigma Green Belt project. This is an Excel tool that will make your job much easier!

Online, Anytime, Anyplace

Lecture slides, a dynamic table of contents, and streaming video are part of the user experience in online distance education from ISD. All lectures, exercises, and course materials are online and students can interact with instructors.

Program Overview

This new online program focuses the power of Six Sigma Green Belt training on healthcare applications. Participants will learn how to identify, frame, and effectively solve quality problems in healthcare organizations at the Green Belt skill level. They will master tools that help to define problems, collect data, analyze, resolve, and implement systems and procedures. The results can bring increased value to organizations as measured by revenue growth, cost savings, reduction in customer complaints, and patient satisfaction improvements.

Online E-Learning Benefits

- Self-paced learning
- Allows students to structure course around their schedule
- Gives students time to review materials without slowing down classmates
- Lectures can be reviewed multiple times
- Active learning (thinking and doing during a lecture)
- Instructor interaction (students ask questions via email)
- Instructors try to answer material-related questions within one day
- Video/audio files can be placed on corporate intranets

Six Sigma Program Director

Pat Hammett, Ph.D.

As the Director of live and online Six Sigma programs, Dr. Hammett has provided education and training to more than 10,000 participants across a variety of industries. He is the lead developer of several widely acclaimed programs for healthcare, manufacturing, business processes, and other environments, as well as Design for Six Sigma, leading to certification at the Green Belt and Black Belt levels. He also teaches several pivotal under-graduate and graduate courses in the Industrial and Operations Engineering Department and the Global Automotive and Manu-facturing Engineering Program in the Integrative Systems and Design Division. These include Quality Engineering Principles and Analysis and Designing in Quality: A Design for Six Sigma.

Program Components

Each module of this course consists of one to two hours of web-based instruction, with an accompanying exercise. Exercises are a combination of multiple choice and Six Sigma data analysis problem sets. (Microsoft Excel is required to conduct analysis). The examples used throughout the course are based on real world Six Sigma Healthcare projects.

Module Topics

- Overview of Six Sigma in Healthcare
- DMAIC Problem Solving Process
- Process Mapping Tools
- Value Stream Mapping
- Distributions and Patterns: Histograms and Box Plots
- Descriptive Statistics
- Six Sigma Measure Phase: DPM, DPMO
- Qualitative Analysis
- Check Sheets
- Pareto Analysis
- Statistical Process Control: Stability vs. Capability Analysis
- Statistical Process Control Charts
- Measurement System Analysis
- Stratification Analysis
- Two Groups Hypothesis Tests (Two Means and Two Variances)
- Two Group Hypothesis Tests (Two Proportions)
- Two Variable Analysis
- Correlation Analysis
- Wait Time Analysis
- Improvement Countermeasures
- Control Methods
- Project Selection, Scoping, and Management
- DMAIC Project Example

Program Details

Register Today!

Visit either of our Online Six Sigma Green Belt Healthcare program website at isd.engin.umich.edu/OnlineSixSigmaGreenBeltHealthcare, send an email to MEonline@umich.edu or call (734) 647-7200.

Professional Certification

Students pursuing the University of Michigan Six Sigma Green Belt Healthcare Certification must score a cumulative average of 80% or higher on required exercises and online tests, as well as complete a pre-approved Green Belt project for certification.

Degrees of Success

Whatever your professional dreams, you'll be a step ahead with exceptional graduate degree programs offered through ISD. These programs are immediately useful and relevant and some can be completed entirely online.

Visit our website at isd.engin.umich.edu to learn more.

Customized Programs

Our professors and industry experts are available to collaborate with you by tailoring programs to meet your specific organizational needs and presenting them at a location of your choice.

For more information, contact us at (734) 647-7200 or MEonline@umich.edu.

About Michigan Engineering and Integrative Systems + Design

The University of Michigan's College of Engineering was founded in 1853. Today, Michigan Engineering and its academic departments rank in the top ten in their respective areas (U.S. News and World Report). The faculty's ongoing research and industry consultation in engineering contribute to Michigan's strength and impact on professional development. Michigan Engineering's total research expenditures for fiscal 2012 exceeded $190 million, placing it in the forefront of collegiate engineering research in the U.S.

Integrative Systems + Design (ISD) (formerly known as Interdisciplinary Professional Programs), a division of Michigan Engineering, offers credit courses to students on campus and at locations around the world. Recognized as a global leader in online education in addition to offering on campus programs, ISD provides lifelong learning to technical professionals, and has served more than 100,000 with intensive short courses, conferences, professional certifications, and online advanced degree and certification programs.

ISD responds to the needs of industry, healthcare, government, the military, and non-profit organizations with specialized education programs.

For more information about ISD, visit **isd.engin.umich.edu**
Questions? Email **meonline@umich.edu**