

The John D. Hromi Center for Quality and Applied Statistics Six Sigma Black Belt Certification

The following outlines the requirements to earn Six Sigma Black Belt Certification in conjunction with one of the academic programs offered by CQAS.

1. Completion of one of the academic programs offered by CQAS:
 - MS in Applied Statistics
 - Advanced Certificate in Statistical Quality
 - Advanced Certificate in Statistical Methods for Product and Process Improvement

Students who are still taking coursework are also eligible, provided they have taken the required courses listed in item 3. However, a Black Belt will not be conferred until the student graduates from the CQAS program.
2. Acceptance as a Black Belt Candidate
 - Completion of the Six Sigma Black Belt Certification application form.
 - Approval by an individual in a leadership role in the organization at which the candidate will be leading a Black Belt project. It is preferred that this be an organization at which the candidate is working full-time. Part-time employment may be acceptable upon the approval of CQAS.
3. Completion of the following required coursework. For students enrolled in one of the Advanced Certificate programs, this will require one or two additional courses. It is recommended that Quality Management be among the first courses taken.
 - 0307-721 Statistical Process Control
 - 0307-781 Quality Management
 - 0307-801 Design of Experiments I
 - 0307-802 Design of Experiments II
 - 0307-841 Regression I
 - Past graduates of CQAS programs will need to have their transcripts reviewed by the Department Chair. Students who took 0307-781, Quality Management prior to academic year 2004 will normally be required to re-take this course, because it now includes topics in Six Sigma as well as ISO 9000 and the Malcolm Baldrige Award. Those retaking the course may do so on an audit basis.

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4. Approval of a Project Charter
 - The CQAS Project Charter Form must be used.
 - Organization assigns a Champion. This is an individual within the organization who will help the candidate obtain resources and access to key people to complete the project.
 - Black belt candidate and organization select project in consultation with CQAS advisor. Project should be connected to company's strategic objectives. (Projects must be new—completed projects are not acceptable.)
 - \$100-\$250K first-year savings, or equivalent benefit to company (justified by Champion in consultation with CQAS advisor), with allowances for smaller (<\$10M in sales) organizations and special company needs.
 - Organization signs Project Charter indicating approval.
 - President, Plant Manager, or equivalent level in the organization
 - Candidate's direct report
 - A person within the organization who can verify the financial goals
 - CQAS advisor approves Project Charter
 - For organizations with no current Six Sigma program, an overview of Six Sigma is presented to the Black Belt candidate, the Champion, and other stakeholders within the organization. A three-hour version may be presented by a member of the CQAS faculty for a fee and travel costs.
 - Where necessary, a confidentiality agreement will be signed by the CQAS advisor.

5. Completion of the Black Belt Project
 - A. Methods and Tools
 - The Black Belt candidate must use the DMAIC problem solving structure to complete the project. This is presented in the Quality Management course. The Candidate and Champion may obtain further guidance and introduction to the typical Six Sigma tools by using any of the following Pocket Guides.
 - Lean Six Sigma Pocket Tool Book by George, Rowlands, Price and Maxey
 - Six Sigma Pocket Guide by Rath & Strong
 - Six Sigma Team Pocket Guide by Rath & Strong
 - Six Sigma Champions Pocket Guide by Rath & Strong
 - Additional information, such as Lean approaches, may be used as well.

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B. Gates

- At approximately one-month periods and/or in conjunction with completion of one of the DMAIC phases the candidate will make a formal presentation to the CQAS advisor, Champion, and other stakeholders. These will be PowerPoint presentations covering the following:
 - Strategy and steps taken
 - Methods and tools used
 - Problems, successes, challenges, current status and path forwardPresentations may be done at CQAS or remotely.

C. Fees

- The fee to have a member of the CQAS faculty present the Six Sigma overview is \$875 plus travel outside the Rochester region.
- The fee for the CQAS advisor to review the Project Charter, participate in the phase reviews, and provide guidance to the Candidate on the Six Sigma approach and tools is \$2,000 plus any travel outside the Rochester region.
- Consulting regarding other organizational issues and problems as well as playing a direct role in the project design, statistical analyses, or generation of reports will be charged additionally. These services, if requested from the organization, will be quoted separately.

The John D. Hromi Center for Quality and Applied Statistics
Six Sigma Black Belt Certification
Application Form

Name: _____

Address: _____

Phone: _____ **Fax:** _____

Email: _____ **Date:** _____

PROGRAM OF STUDY

- MS in Applied Statistics
 Advanced Certificate in Statistical Quality
 Advanced Certificate in Statistical Methods for Product and Process Improvement

Organization at which Black Belt Project will be conducted:

Name: _____

Address: _____

What is your affiliation with this organization?

- Full-time employment Part-time employment

MANAGEMENT APPROVAL FOR THE PROJECT:

This signifies the organization's willingness to have the applicant conduct a Six Sigma Black Belt project at the organization and to support this project with any required resources. The specific project may be identified later.

Name: _____

Title: _____

Phone: _____

Email: _____

Signature: _____ **Date:** _____

PAYMENT:

- Visa MasterCard

Cardholder Name _____

Card No. _____ **Exp. Date** _____

Signature of Applicant: _____ **Date:** _____

Approval by CQAS: _____ **Date:** _____