SIX SIGMA

Requirements

Six Sigma has been incorporated by statewide and national companies involved in manufacturing, health care, and service industries. The Six Sigma process has also been used to address environmental and sustainability concerns, such as recycling and food waste/share programs. This minor is designed for students who are interested in the Six Sigma statistical methodology for process improvement and quality enhancement. Students completing the minor will develop their analytical, managerial, and statistical skills, and gain a competitive advantage in the workplace.

Six Sigma Minor versus Six Sigma Certification

Any student may obtain a minor in Six Sigma by taking six or more courses (24 credit hours) from the lists below. To additionally obtain a Green Belt Certification, the student must pass an external Six Sigma exam and submit a Six Sigma Green Belt project that must be approved by the Six Sigma minor advisor.

Requirements

Code	Title	Hours
Introductory Statistics Course		
MA 223	Engineering Statistics	4
or MA 382	Introduction to Statistics with Probability	
Quality and Six Sigma Courses		
EMGT E445	Quality Methods	4
EMGT E446	Statistical Methods in Six Sigma	4
EMGT 447	Six Sigma in Practice	4
Supporting Coursework		
Select two of the following: Courses not on this list may count towards the minor if approved by the minor advisor.		8
EMGT 330	Introduction to Engineering Management	
EMGT E524	Production/Operations Management	
EMGT E527	Project Management	
MA 485	Applied Linear Regression	
MA 487	Design of Experiments	
ME 412	Lean Manufacturing	

Note: If MA 381 Introduction to Probability with Applications to Statistics is taken before MA 223 Engineering Statistics/MA 382 Introduction to Statistics with Probability, it is strongly recommended the student take MA 382 Introduction to Statistics with Probability instead of MA 223 Engineering Statistics.

External Examination for Six Sigma Green Belt Certification

- Take an external exam that will give students an objective credential from a recognized agency (IISE).
- Students who pass the EMGT 548 Six Sigma's Body of Knowledge IISE SSGB exam will be reimbursed for the exam (while funding is available)
- If the student intends to obtain a minor only, then they do not need to take the external exam.

Approved Six Sigma Green Belt Project for Six Sigma Green Belt Certification

- The student must submit a Six Sigma Green Belt project to be approved by the Six Sigma advisor to obtain their certification.
- If the student intends to obtain a minor only, then they do not need to submit a project to be approved by the Six Sigma advisor.

Notes and Limitations on Requirements

1. Almost all students are required to take either MA 223 Engineering Statistics or MA 382 Introduction to Statistics with Probability as a requirement for their major; therefore, only five "extra courses" are required for most students.
2. Electives not listed above may be substituted with other courses with the approval of the minor advisor for Six Sigma.
3. All minors must be approved by the minor advisor. The department has a form for the planning and approval of a minor.
4. All certifications must be approved by the minor advisor. The department has a form for the planning and approval of a certificate.