Purpose of the Course:
This course builds on the Missouri Southern Six Sigma Green Belt course. Six Sigma improvement tools and techniques are taught. This course enables individuals to earn Six Sigma Black Belt certification.

Target Group:
This course is designed for people involved in leading projects aimed at improving products, processes or services. Course participants must have successfully completed the MSSU Six Sigma Green Belt course.

University Certification:
Participants who satisfy all requirements will be certified by Missouri Southern State University as Six Sigma Black Belts. Certification requirements include:

- Successful completion of the Six Sigma Green Belt course
- 56 classroom hours
- 2 exams with an average grade of ≥80%
- 1 business sponsored Black Belt project
- Analysis of >20 cases
- Several hands-on simulations

Course Duration and Location:
8 days of training:
June 29-July 2, 2015 and Aug 3-6, 2015
Times: 8:30 a.m. – 4:30 p.m.
Location: T118 in Ummel Technology on the Missouri Southern Campus (3950 E. Newman Road, Joplin, MO).

Registration Information:
Go to http://bit.ly/mssublackbelt to register. We require registration and full payment of the seminar fee 2 weeks prior to the seminar start date.

Costs:
The course fee is $3,000 per participant. Registration information will be needed for each individual registering.

Course Outline:

Week 1:
- Review of DMAIC model
- Review of Statistical Process Control
- Review of Measurement Systems Analysis
- Failure Mode Effects Analysis
- Industrial Experimentation
- Hypothesis Testing
- Type I & II Error
- Single Factor Designs
- Randomized Block Designs

Week 2:
- $^k$ Designs
- General Factorial Designs
- Center Points
- Fractional Factorial Designs
- Decision Analysis
- Response Plans
- Closing out the Project
- Project Presentations

Design-Expert software by Statease is used to teach Industrial Experimentation.
Companies that have participated in the MSSU Six Sigma training:
Enersys of Hays, KS; American Castings of Pryor, OK; Agile Mfg of Anderson, MO; Leggett & Platt of Carthage, MO; Blitz USA of Miami, OK; MWM Dexter of Aurora, MO; Graham Packaging of Joplin, MO; Labarge of Joplin, MO; Hampshire Pet Products of Joplin, MO; Target of Topeka, KS; Efco of Monett, MO; Discovery Plastics of Miami, OK; Precision Machining of Miami, OK; Quest Diagnostic of Joplin, MO; Digital Monitoring Products of Springfield, MO; Thorco of Lamar, MO; Carlisle Power Transmission Products, Inc. of Springfield, MO and Ft. Scott, KS; CertainTeed Corporation of Joplin, MO; Malone’s CNC Machining of Grove, OK; T-Mobile of Springfield, MO; La-Z-Boy of Neosho, MO; Bemis Packaging of Joplin, MO; Umicore Optical Materials of Quapaw, OK; Mars PetCare USA of Joplin, MO and Miami, OK; Able Manufacturing & Assembly of Joplin, MO; Cerdyne Boron Products of Quapaw, OK; Lafayette House of Joplin, MO; Rock Tenn of Joplin, MO; Small Business and Technology Development Center of Northwest Missouri State University of St. Joseph, MO; KMT Waterjet of Joplin, MO.

“I feel like I am ready to apply DMAIC at work.”

“Notebook/software were great and there were plenty of practice sessions in class.”

“I feel good about the material and can use it with confidence.”

“Great class! Best instructor I ever had at any time during my school years and during any work related training, the material was well presented and easy to follow.”

This course is highly interactive. Many hands-on simulations, exercises, and case studies are used to apply theory.