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

Course Duration and Location:
8 days of training:
July 8-11, 2019 Plus Aug 23, Sept 6, Sept 20, Oct 4 (Prerequisite: MSSU Green Belt)
Times: 8:30 a.m. – 4:30 p.m.
Location: T139 in Ummel Technology on the Missouri Southern Campus (3950 E. Newman Road, Joplin, MO).

Registration Information:
E-mail the following information to Mrs. Nancy Koon (koon-n@mssu.edu) prior to June 21, 2019: Participant name, Participant Title, Participant e-mail, company, and Company Contact. An invoice will be generated and e-mailed back to you.

Costs:
The course fee is $3,000 per participant. Please remit payments to the Bursar’s Office. Make all checks payable to MSSU, mail to MSSU with a copy of the invoice: Missouri Southern State University Bursar, 3950 E. Newman Road, Joplin, MO 64801. If paying by credit card, call Bursar’s Office 417-625-9381. We accept Visa, MasterCard, and Discover Card.

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; Ducommun 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; Boron Products of Quapaw, OK; Freeman Health Systems of Joplin, MO; Protein Solutions of Joplin, MO; and Modine of Joplin, MO

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> “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.”

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**THIS COURSE IS HIGHLY INTERACTIVE. MANY HANDS-ON SIMULATIONS, EXERCISES, AND CASE STUDIES ARE USED TO APPLY THEORY. FOR MORE INFORMATION, CONTACT ELKE HOWE AT 417-625-9848 OR HOWE-E@MSSU.EDU**