



## On-demand Course Syllabus AMS371: Quality Assurance

### INSTRUCTOR CONTACT INFORMATION:

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**OFFICE HOURS:** by appointment

**COURSE CREDITS:** 3

**COURSE PREREQUISITES:** MATH 116

### CATALOG DESCRIPTION

A study of quality assurance techniques. Application of Statistical Process Control (SPC), acceptance sampling, military standards 105D & 414. Quality organizations and standards.

### REQUIRED TEXTBOOK

Quality and Performance Excellence by James R. Evans, 8th edition, 2016. South-Western Cengage Learning. ISBN-13: 9781305662223

Quality and  
Performance  
Excellence  
MANAGEMENT,  
ORGANIZATION,  
AND STRATEGY



### LEARNING OBJECTIVES

By the end of this course, students should be able to:

- Discuss the basic principles associated with total quality.
- Describe different frameworks for quality.
- Describe techniques and tools for quality and process improvement, including kaizen, Deming cycle, Six Sigma DMAIC, lean thinking, 7 QC tools, and control charts.
- Demonstrate the use of analytical tools in quality control.
- Discuss the importance of teamwork, employee engagement and leadership for quality improvement.

### COURSE TOPICS

Topics will include:

Total Quality Management and Philosophies

Frameworks for Quality

Malcolm Baldrige National Quality Award (MBNQA)

ISO 9000

Six-Sigma  
Costs of Quality  
Tools and Techniques for Quality Design and Control  
    Process Management  
    Design for Six-Sigma (DFSS)  
    Design Failure Mode and Effects Analysis (DFMEA)  
    Product Design Processes  
    Design for Agility  
    Poka-Yoke  
    Statistical Process Control  
Tools and Techniques for Quality Improvement  
    Process Improvement  
    The Deming Cycle  
    Six Sigma DMAIC Methodology  
    The Seven Quality Control Tools  
    Lean Thinking and Tools  
Quality in Customer-Supplier Relationships  
    Principles for Customer-Supplier Relationships  
    Practices for Dealing with Customers  
    Managing Customer Relationships  
    Practices for Dealing with Suppliers  
Quality Audits  
Quality Planning and Leadership for Quality Improvement  
Teamwork and Types of Quality Teams  
Engagement, Empowerment, and Motivation for Quality Improvement

### **GRADING/COURSE EVALUATION**

▪ Quizzes	15%
▪ Exams	45%
▪ Assignments	40%

**GRADING SCALE:** A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = < 60.

### **COURSE REQUIREMENTS**

#### **QUIZZES**

There will be a set of announced quizzes for this course. The purpose of the quizzes is to assess the understanding of the material covered in previous lectures and reading assignments and to prepare you for the exams.

#### **EXAMS**

There are three proctored exams for this course. The exams questions will be developed from assigned readings and lectures.

#### **ASSIGNMENTS**

There will be a set of homework assignments for this course. The homework assignments will consist of case studies and short reports. The assignments must be submitted on time via blackboard.

## **COURSE and UNIVERSITY POLICIES/PROCEDURES**

### **MODE OF INSTRUCTION**

This on-demand course will be delivered via Blackboard. You must be committed to learn to use the technology required to participate in a World Wide Web course. This includes using e-mail and Blackboard course management system. On Blackboard, you will find course syllabus, course schedule, announcements, handouts, PowerPoint slides, assignments, exams, and grades. You can find the course materials at [Blackboard](#) course website. If you need assistance with Blackboard, you may contact the WKU IT Helpdesk at (270) 745-7000.

You should take the time to thoroughly read the course syllabus. Your success in this class depends on your understanding of and adherence to the policies contained in this syllabus. If you have any questions you should contact your instructor. Remember that it is your responsibility to stay current with your coursework and due dates.

### **CLASS EXPECTATIONS**

Students must complete the class work individually. You are expected to be responsible for your own learning and to thoughtfully complete the assigned readings.

### **COMMUNICATION POLICY**

Email is the preferred method of communication. My response time is within 24 hours Monday – Friday, and 48 hours on the weekends.

**Email Subject Lines:** Please start your subject lines in email correspondence with Course Number-username: Subject\_Of\_Message (**for example, AMS371-JHilltopper: Question regarding A01**)

### **HOW TO LABEL YOUR WORK**

- **Assignments:** All homework assignments should be labeled as follows: username-class#-assignment#.doc. For example, a student named John Hilltopper would name his assignment **JHilltopper-AMS371-A1.doc**. Your name and the assignment number must be included in the text of the document attached.
- Failure to follow these guidelines could result in loss of points.

### **ACADEMIC HONESTY**

All Western Kentucky University policies are in effect. Academic dishonesty will not be tolerated in any form. Plagiarism is defined as the use of the words and ideas of another as one's own without crediting the source. References must be cited and quotation marks used in direct quotes. Academic dishonesty includes cheating on exams, quizzes, assignments and representing someone else's work as your own work. Plagiarism and cheating are serious offenses and may be punished by failure on the exam, assignment, paper or project.

## **COURSE WITHDRAWAL**

Students should refer to the Drop/Add deadlines and to information for withdrawing from a class for the particular term. It is the student responsibility to officially withdraw from the class if you wish no longer to continue in the course. The university policy states "Nonattendance does NOT release students from the responsibility to officially drop any course for which they have enrolled and choose not to complete."

## **STUDENT ACCESSIBILITY RESOURCE CENTER**

"In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at [sarc.connect@wku.edu](mailto:sarc.connect@wku.edu). Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center."

## **TITLE IX MISCONDUCT/ASSAULT STATEMENT**

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and Discrimination and Harassment Policy (#0.2040) at [https://wku.edu/policies/hr\\_policies/2040\\_discrimination\\_harassment\\_policy.pdf](https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf).

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.