Jordan University of Science and Technology
Faculty of Engineering
Industrial Engineering Department

IE443 Quality Control
Summer Semester 2019-2020

Course Catalog
3 Credit Hours. The course covers the concepts and methods of quality, engineering specifications and tolerances, quality charts, statistical process control (SPC) using control charts of variables and attribute data, acceptance sampling, process capability indices, and cost and management aspects of quality.

Text Book	
Title	Introduction to Statistical Quality Control: A modern Introduction
Author(s)	D.C. Montgomery
Edition	7th Edition
Short Name	Ref #1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Applied Statistics and Probability for Engineers	D.C. Montgomery and G.C. Runger	5th Edition	

Instructor	
Name	**Dr. KHALID ALZOUBI**
Office Location	C5 Level 1
Office Hours	
Email	kmalzoubi4@just.edu.jo

Class Schedule & Room

Section 1:
 Lecture Time: Sun, Mon, Tue, Wed : 10:00 - 11:30
Room: منصة الكترونية

Prerequisites

Line Number	Course Name	Prerequisite Type
293470	IE347 Applied Engineering Statistics	Prerequisite / Pass

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Modern Quality Management and Improvement	**Chapter 1** From **Ref #1**
Week 3	The DMAIC Problem Solving Process	**Chapter 2** From **Ref #1**
Week 4	Statistical Models for Quality Control and Improvement: Review	**Chapter 3** From **Ref #1**
Week 4	Statistical Inference in Quality Control and Improvement: Review	**Chapter 4** From **Ref #1**
Week 5	How SPC Works	**Chapter 5** From **Ref #1**
Weeks 6, 7, 8	Variables Control Charts	**Chapter 6** From **Ref #1**
Weeks 9, 10, 11	Attributes Control Charts	**Chapter 7** From **Ref #1**
Weeks 12, 13, 14	Determining Process and Measurement Systems Capability	**Chapter 8** From **Ref #1**
Weeks 14, 15, 16	Acceptance Sampling	**Chapter 15, 16** From **Ref #1**

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understanding and developing control charts [1SLO1, 1SLO6]	20%	
Understanding the quality management theory [1SLO4]	10%	
Conducting process analysis [1SLO1, 1SLO6]	20%	
Understanding quality improvement techniques [1SLO1, 1SLO6]	20%	
Understanding the meaning of statistical control and random variability. [1SLO1, 1SLO6]	30%	

Relationship to Program Student Outcomes (Out of 100%)

SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
45			10		45	

Evaluation

Assessment Tool	Weight
First Exam	30%
Second Exam	20%
Final Exam	50%

Policy	
Attendance	University policy will be applied
Homeworks	Homeworks will be suggested and discussed during the lectures. But they will not be graded

Date Printed: 2020-09-24