H-Form ISE 230

Course Information:	
Code and Title:	ISE 230 Quality Control
Prerequisites:	MATH 265-2
Co requisite (if any)	-
Credit Hours: 3	Lecture Hrs. (45), Tutorial Hrs. (10), Lab (5), **Total Credits** (60)
College/ Department:	College of Engineering/Industrial and Systems Engineering

Course Description:
The course covers fundamental definitions, concepts, and terminology employed in quality control systems. It explores analytical, practical, and statistical engineering tools aimed at enhancing quality, reliability, and design within a manufacturing environment. The focus is on implementing effective quality systems, equipping students with the knowledge and skills necessary for ensuring and improving product quality in various industrial settings.

Course Objectives:
The course's main objective is to enable students to understand the concepts of quality, quality improvement, and aspects of quality control and improvement also to set up control charts for variables data and attributes data. One of the main objectives of this course also is to equip students with the necessary knowledge for proper decisions related to quality control and improvement. By the end of this course, the student will be able also to understand how to reduce the variations in the quality control process output and to become familiar with basic methods of statistical process control.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Acquire the concepts of quality improvement.	K1
1.2	Select the mathematics and statistical tools for quality control problems	K2
Skills		
2.1	Apply statistical methods to solve process control problems.	S1
2.2	Choose the appropriate quality tools using Minitab and interpret the results	S2
2.3	Design control charts for variables and attributes.	S3
2.4	Perform analysis of process capability and measurement system capability	S3

Textbook:			
Title:	Introduction to Statistical Quality Control		
Author(s):	Douglas C Montgomery		
Publisher:	John Wiley & Sons	**Year and Edition:**	7th edition, 2013
Other Useful Resources:	Quality Control Dale H Besterfield, Pearson, 8th Edition, 2008 Applied Reliability and Quality: Fundamentals, methods, and Procedures Balbir S Dhillon, Springer 2007		