

# H-Form ISE 343

Course Information:	
<b>Code and Title:</b>	ISE 343 Design of Experiments
<b>Prerequisites:</b>	ISE 250 + MATH 265 -2
<b>Co requisite (if any)</b>	-
<b>Credit Hours: 3</b>	Lecture Hrs. (45), Tutorial Hrs. (7), Lab (8), <b>Total Credits ( 60 )</b>
<b>College/ Department:</b>	College of Engineering/Industrial and Systems Engineering

Course Description:
The ISE 343 Design of Experiments course aims to provide the knowledge and skills to design, analyze, interpret the results and make conclusions from an experiment. The course covers the theoretical basis of these points as well as problem solving techniques through hand calculations and computer software.

Course Objectives:
This course provides the knowledge and skills to design, analyse, interpret the results and make conclusions from an experiment. Also, it covers the theoretical basis of these points as well as problem solving techniques through hand calculations and computer software.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
<b>1.1</b>	Recall the theoretical basis of the need of running experiments and experimental design.	K2
<b>1.2</b>	Recognize the source of errors and randomized complete block designs	K4
Skills		
<b>2.1</b>	Design experiments using general factorial design with two or more factors.	S1
<b>2.2</b>	Analyse the designed plan using Minitab	S2
<b>2.3</b>	Solve experiments with analysis of variance techniques to interpret and judge the engineering solutions.	S4
Values		
<b>3.1</b>	Judge the impact of the optimized solution in the engineering context	V2

Textbook:			
<b>Title:</b>	Design and Analysis of Experiments		
<b>Author(s):</b>	Douglas C. Montgomery		
<b>Publisher:</b>	John Wiley & Sons, Inc.	<b>Year and Edition:</b>	9 <sup>th</sup> ,2017
<b>Other Useful Resources:</b>			