

# H-Form ISE 413

Course Information:	
<b>Code and Title:</b>	ISE 413 Facility layout and operations
<b>Prerequisites:</b>	ISE 321 + ISE 341
<b>Co requisite (if any)</b>	-
<b>Credit Hours: 3</b>	Lecture Hrs. (45), Tutorial Hrs. (9), Lab (6), <b>Total Credits ( 60 )</b>
<b>College/ Department:</b>	College of Engineering/Industrial and Systems Engineering

Course Description:
The course provides the knowledge and skills to design and evaluate an industrial facility capacity and a layout plan and carry a design project for a factory system. Also, the course gives the principle of location problem analysis.

Course Objectives:
After completing the course, the student will:
Develop their ability to design of factories based on the learned knowledge through the course and carry a design project for factory system. On the other hand, the course covers the theoretical basis as well as problem solving techniques.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Identify the design stages of industrial facility and facility strategic planning.	K2
1.2	Define the design procedures and methodologies for industrial facility layout.	K4
Skills		
2.1	Formulate planning procedures to analyse flow, space and activity relationships with impact to material handling and layout alternatives	S1
2.2	Apply quantitative and qualitative facility planning models to produce solutions related to industrial engineering field.	S3
2.3	Solve the facility layout problem taking into account site selection criteria to assess and evaluate engineering solutions.	S4
Values		
3.1	Participate within facility design team.	V1

Textbook:			
<b>Title:</b>	Facilities Planning		
<b>Author(s):</b>	Tompkins, J.A. White, J.A. Bozer, Y. A. Tanchoco, J.M.A.		
<b>Publisher:</b>	Wiley	<b>Year and Edition:</b>	4 <sup>th</sup> , 2010
<b>Other Useful Resources:</b>	Facilities Planning and Design, Alberto Garcia-Diaz J. MacGregor Smith, Pearson New International Edition, 2014		