H-Form ISE 416

Course Information:	
Code and Title:	ISE 416 Healthcare System Engineering
Prerequisites:	ISE 322
Co requisite (if any)	-
Credit Hours: 3	Lecture Hrs. (45), Tutorial Hrs. (15), Lab (0) **Total Credits** (60)
College/ Department:	College of Engineering/Industrial and Systems Engineering

Course Description:
Explores components of healthcare system, existing problems in healthcare systems; need for engineering to analyse healthcare system problems; application of industrial engineering tools in improving healthcare system; role of industrial engineering in addressing healthcare policy issues

Course Objectives:
The course aims to analyse the context and components of the health care delivery systems, select and critically evaluate the utility of key industrial engineering concepts and tools for assessing and modeling health care problems and challenges in health care delivery. As well demonstrate the use of IE techniques in solving selected health care delivery problems and evaluate the roles of industrial engineers in health care.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Explain the complex interactions that exist in healthcare systems.	K3
1.2	Describe the complexities that exist in the privacy, security and other policies in healthcare.	K4
Skills		
2.1	Select the healthcare delivery context, solve and analyze healthcare system problems using optimization and/or simulation tools.	S1
Values		
3.1	Judge systems engineering in a variety of healthcare contexts	V2

Textbook:			
Title:	Healthcare Systems Engineering,		
Author(s):	Paul M. Griffin, Harriet B. Nembhard, Christopher J. DeFlitch, Nathaniel D. Bastian, Hyojung Kang, David A. Munoz,		
Publisher:	Wiley	**Year and Edition:**	1st , 2016.
Other Useful Resources:			