H-Form ISE 424

Course Information:	
Code and Title:	ISE 424 Reverse Engineering
Prerequisites:	ISE 311
Co requisite (if any)	
Credit Hours: 3	Lecture Hrs. (30), Tutorial Hrs. (30), Lab (15) **Total Credits** (75)
College/ Department:	College of Engineering/Industrial and Systems Engineering

Course Description:
This course Introduces students to Reverse Engineering methodology. Reverse Engineering has important Engineering techniques to obtain knowledge about product or system. Applying reverse engineering methodologies allow engineers to disassemble and re-assemble of the device, taking care to document, test, analyze and report on the study of its function.

Course Objectives: After completing the course, the student will:
Gain a comprehensive understanding of the Reverse Engineering (RE) methodology. They will delve into the intricacies of disassembling products, effectively specifying the interactions between subsystems, and discerning their functionalities. Additionally, students will acquire knowledge in Computer-Aided Reverse Engineering and Rapid Prototyping Technology, broadening their skill set in employing advanced tools and techniques. The curriculum also encompasses a thorough exploration of RE applications in software engineering, providing students with insights into the diverse ways in which reverse engineering principles can be applied in the realm of software development.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Define the terminologies of reverse engineering.	K1
1.2	Explain the reverse engineering of Systems, Mechanical RE, Electronic RE, and Computer RE	K2
1.3	Discuss the Reverse Engineering methodologies	K4
Skills		
2.1	Apply RE methodologies to disassemble an engineering product	S1
2.2	Write a technical report documenting	S4
Values		
3.1	Perform a project using RE skills and the communication skills	V2

Textbook:			
Title:	Reverse Engineering An Industrial Perspective,		
Author(s):	Vinesh Raja and Kiran J. Fernandes,		
Publisher:	Series in Advanced Manufacturing,	**Year and Edition:**	2008
Other Useful Resources:			