H-Form ISE 351

Course Information:	
Code and Title:	ISE 351 Production Information Systems
Prerequisites:	ISE 220
Co requisite (if any)	-
Credit Hours: 3	Lecture Hrs. (30), Tutorial Hrs. (15), Lab (30), **Total Credits** (75)
College/ Department:	College of Engineering/Industrial and Systems Engineering

Course Description:

The Production information systems course focuses on the design and analysis of production information systems, critical success factors for companies, effectiveness, and efficiency through information systems usage in production and service systems, success cases in industry. Investigation of data modelling, storage, acquisition, and utilization in Industrial Engineering via manual and computerized methods. Development of effective spreadsheet applications, design and implementation of relational databases, web-based database applications, interface design, the system development life cycle applied to data management applications, ERP (Enterprise Resource Planning) software and decision support systems are addressed.

Course Objectives:

This course provides students with a comprehensive foundation in information systems (IS) within the contexts of both industrial and service organizations. Throughout the program, students will develop a deep understanding of the crucial role, various instances, components, and development life cycles of IS. They will acquire practical skills in modelling, designing, and implementing relational databases, functions, logical architectures, and data flows of IS, encompassing user interfaces and Object-oriented IS. Additionally, the course ensures that students become acquainted with the development and significance of e-business, emphasizing the role of web-enabled databases as essential components of IS in the dynamic realm of supply chain management. Through this holistic approach, students are equipped to navigate the complexities of information systems and contribute effectively to the technological landscape of contemporary organizations.

Course Learning Outcomes

		PLO
Knowledge Understanding		
1.1	Recognize the impact of Information systems on industrial engineering decision making.	K3
1.2	Explain the decision support information system and the IS tools with special focus on production IS.	K4
Skills		
2.1	Formulate the adequate Database Related to industrial engineering Field.	S1
2.2	Develop Database solution to transform industrial engineering case studies to IS application.	S2
2.3	Design UML diagrams that meet industrial engineering needs.	S3
Values		
3.1	Manage industrial engineering activities related to IS solution in a collaborative and constructive environment.	V1

Textbook:			
Title:	Modern Systems Analysis and Design		
Author(s):	Jeffrey Hoffer, Joey Goerge & Joseph Valacic		
Publisher:	Pearson	**Year and Edition:**	2021

Other Useful Resources:	Design of Industrial Information Systems, Thomas Boucher & Ali Yalcin, Academic Presss Elsevier, 2010.