H-Form ISE 220

Course Information:	
Code and Title:	ISE 220 Production Planning and Control (1)
Prerequisites:	ISE 240
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:
The Production Planning and Control course presents an introduction to operations management, encompassing diverse aspects of system productivity calculations, both qualitative and quantitative forecast measurements, as well as techniques for monitoring and control. The curriculum extends to industry process capacity analysis, emphasizing the management and control of inventory. Specialized topics include inventory management for probabilistic demand, strategies for supply chain management, and the application of benchmarking for performance measurement.

Course Objectives:
This course aims to understand the concept of industrial engineering and operations management. Hence, it will result in making use of managerial concepts and quantitative techniques required in the area of productivity, forecasting, capacity planning, & inventory. Moreover, it will enhance the use of several forecasting techniques, the functions of inventory and formulate basic inventory models, operations strategy and product/service design..

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Explain the process of developing new products /services.	K2
1.2	Identify supply chain tools and techniques including capacity and demand planning, forecasting, and inventory management.	K3
Skills		
2.1	Develop various forecasting models and conduct capacity planning for facility location.	S1
2.2	Solve different production planning and decision making using different software tools with real applications.	S2
2.3	Analyse how to manage the inventory and decision making.	S4
Values		
3.1	Judge the impact of production planning by using different applications and professional responsibilities.	V2

Textbook:			
Title:	Operations Management: Sustainability and Supply Chain Management,		
Author(s):	Jay Heizer, Barry Render, and Chuck Munson		
Publisher:	Pearson,	**Year and Edition:**	14th edition, 2023
Other Useful Resources:	Sustainable Operations Management, 1st Edition, V. Belvedere and A. grando, Egea. John Wiley & Sons, 2017.		