

MIIE 3240	Manufacturing Operation Management	3 Credit Hours
Prerequisite	None	
Goal	To provide the student with the basic fundamentals of manufacturing and operation management.	
Objectives		Outcomes
<p>The course should enable the student to:</p> <ol style="list-style-type: none"> 1. Understand the concept of manufacturing organization as well as the technology of production. 2. Recognize the critical role of planning and control in operation management. 3. Be aware of role of operation management in business competitiveness. 4. Grasp the concept of project management and how is applied in industry 5. Comprehend the basic knowledge of information system models that enable operation planning. 6. Understand experimentation in operation management 		<p>The students should be able to:</p> <ol style="list-style-type: none"> 1. Identify classification and component of manufacturing system. 2. Define concept of factory and facilities layout. 3. Analyze simple case studies and draw conclusion about operation management issues. 4. Define operation management concept 5. Define operation strategy and analysis 6. Define capacity planning in operation management. 7. Forecast management of a product 8. Use techniques such as MRP in inventory planning and control. 9. Define the concept of production control. 10. Apply just in time systems and scheduling in production control. 11. Apply project management techniques by CPM / PERT 12. Define personal management and work study 13. Apply productivity analysis and quality control concepts 14. Use information system models in production control such as optimization and linear programming. 15. Conduct experiments on both manufacturing simulation and plant simulation and write reports on them.

