

Course Unit Title	Operations Research II		
Course Unit Code	AFOR320		
Type of course unit:	Business Elective		
Level of course unit:	Bachelor (1st Cycle)		
Year of study:	3-4		
Semester when the unit is delivered:	6-7		
Number of ECTS credits allocated	6		
Learning Outcomes of the course unit	<p>By the end of the course, the students should be able to:</p> <ol style="list-style-type: none"> 1. Define project management 2. Develop time estimates for project tasks using PERT 3. Use Microsoft Project software 4. Utilize forecasting techniques for short, medium, and long-range horizons 5. Create statistical control charts 6. Identify processes and measures where variable charting techniques would be appropriate 7. Demonstrate design and effective capacity planning 8. Apply location decision methodology 9. Perform a work sampling study of different activities 10. Examine ERP and related issues of process reengineering, standardization, and change management 		
Mode of Delivery	Face-to-face		
Prerequisites	AFOR310	Co-requisites	
Recommended optional program components	NONE		
Course Contents	<p>Project Management Define project management Develop time estimates for project tasks using PERT Use Microsoft Project software</p> <p>Forecasting</p>		

	<p>Utilize forecasting techniques for short, medium, and long-range horizons</p> <p>Statistical Process Control Create statistical control charts Identify processes and measures where variable charting techniques would be appropriate and where attribute charting techniques would be the proper choice</p> <p>Capacity Planning Demonstrate design and effective capacity planning Use break-even analysis for product planning</p> <p>Location Strategies Apply location decision methodology</p> <p>Layout Strategies Describe local organizations that exhibit each of the seven basic layout types and explain why their choice is appropriate</p> <p>Work Measurement Perform a work sampling study of different activities</p> <p>Material Requirements Planning (MRP) and ERP Describe the distinguishing features of MRP & ERP Examine ERP and related issues of process reengineering, standardization, and change management</p>						
Recommended and/or required reading:							
Textbooks	<ul style="list-style-type: none"> Heizer, J., Render, B. (2017) Operations Management, 12e, Pearson. 						
References							
Planned learning activities and teaching methods	Lectures, discussions, class exercises, presentations, assignments						
Assessment methods and criteria	<table> <tr> <td>Mid-term exam</td> <td>20%</td> </tr> <tr> <td>Group assignment and presentation</td> <td>20%</td> </tr> <tr> <td>Final Exam</td> <td>60%</td> </tr> </table>	Mid-term exam	20%	Group assignment and presentation	20%	Final Exam	60%
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Language of instruction	English						
Work placement(s)	NO						