urse Unit Title	Operations Research I		
Course Unit Code	AFOR310		
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	By the end of the course, the students should be able to: 1. Define operations management 2. Calculate single & multifactor productivity 3. Identify and define key decisions in operations management 4. Define product life cycle 5. Apply decision-trees to product issues 6. Explain the key principles of Total Quality Management 7. Describe production processes 8. Compute cross-over points for different processes 9. Evaluate supply chain performance 10. Compute inventory turnover 11. Use break-even analysis to determine cost-effectiveness of outsourcing 12. Define JIT and lean operations 13. Determine optimal setup costs and times		
Mode of Delivery	Face-to-face		
Prerequisites	AFMA101,AFMA102,AMAT112,AMAT210	Co-requisites	
Recommended optional program components	NONE		
Course Contents	Operations and Productivity Define operations management Explain distinction between goods and services Explain difference between production and productivity Calculate single & multifactor productivity Operations Strategy Identify and define key decisions in operations management Identify and define global operations strategy options Design of Goods & Services		

	Define product life cycle Build a house of quality Apply decision-trees to product issues Managing Quality Define Quality & TQM Explain Six Sigma Use tools of TQM Process Strategy Describe production processes Compute cross-over points for different processes Use tools for process analysis Supply chain management Identify supply chain strategies Evaluate supply chain performance Compute inventory turnover Outsourcing Explain how core competencies relate to outsourcing Use break-even analysis to determine cost-effectiveness of outsourcing JIT & Lean Production Define JIT and lean operations Determine optimal setup costs and times Explain principles of the Toyota Production System
Recommended and/or required reading:	
Textbooks	• 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	Mid-term exam 20% Group assignment and presentation 20% Final Exam 60%
Language of instruction	English
Work placement(s)	NO