University of East Anglia

ACADEMIC PARTNERSHIPS

Module Outline **Part 1- as validated**

1.	**Title**	**Engineering Operations Management and Business Improvement**
2.	**Level**	**6**
3.	**Credits**	**20**
4.	**Indicative Student Study Hours**	**36 hours lectures** **164 hours self-directed learning**
5.	**Core (must take and pass), Compulsory (must take) or Optional**	**Compulsory**

5. Brief Description of Module (purpose, principal aims and objectives)

The adoption by private industry and public organisations interest in improvement philosophies, e.g. Six Sigma and Lean Production, has led to an increased awareness of strategies for business improvement.
This module aims to provide students with an understanding of how an engineering or manufacturing organisation's future may be closely connected to continuously improving its business processes.
The module content is designed to develop the students' knowledge and understanding of the principles and application of operations management in the engineering industry. Students will have the opportunity to analyse, evaluate and apply the impact of operations management and business improvement on refining the management of resources and performance of an engineering project or process.

6. Learning Outcomes - On successful completion of this module a student will be able to:

(*Add more lines if required)*

	Specific Learning Outcomes
1.	Evaluate clearly how business improvement can boost product design, engineering processes, sustainability awareness and customer service, in terms of design, operations and performance
2.	Analyse and communicate the duties and responsibilities of an operations manager in the engineering industry.
3.	Apply effectively statistical process control and improvement programmes to enhance time, cost and quality control constraints together with reliability problems relevant to industrial applications.

	Generic Learning Outcomes
4.	Use appropriate methods to address problems that may have many interacting factors
5.	Apply knowledge in unfamiliar contexts, synthesising ideas or information to generate appropriate solutions

7. Assessment

Pass on aggregate or Pass all components *(modules can only be pass all components if this is a PSRB requirement)*	**Pass on aggregate**

Summary of Assessment Plan

	Type	% Weighting	Anonymous Yes / No	Word Count/ Exam Length	Learning Outcomes Coverage	Comments
1.	Case Study Presentation	40%	Yes	20 minutes	LO 2, 4	
2.	Case Study Report	60%	Yes	2000	LO 1, 3, 5	

Further Details of Assessment Proposals

Give brief explanation of each assessment activity listed

Case Study Presentation

The student will choose an engineering organisation of their choice, and investigate the roles and responsibilities of an operations manager and analyse how effective those responsibilities are in driving the organisation forward. The presentation is expected to demonstrate not only the findings of the investigative process, but also the student's emerging awareness of the limits of the investigation itself, and the extent to which findings may apply.

Case Study Report

The Case Study Report builds on the presentation but enables to the student to document the process as a written document. Furthermore, the student is able to draw on tutor and peer feedback to the presentation, thus provide an additional level of consideration to the findings first presented.

8. Summary of Pre and / or Co Requisite Requirements

Not applicable

9. For use on following programmes
BEng Engineering (Electrical) BEng Engineering (Mechanical)

Module Specification **Part 2- to be reviewed annually**

1.	**Module Leader**	**Abed Ahmed**

2.	**Indicative Content**
	This module will provide an avenue for the student through the use of methods, models and techniques to challenge the decisions made with regards to problems management faces in business and industry. Analytical skills to understand the complexity of operational management challenges in business will be gained through incorporating management techniques and technologies they control as well as nurturing creative thinking to spawn potential solutions.

3. Delivery Method (*please tick appropriate box)*

Classroom Based	Supported Open Learning	Distance Learning	E-Learning	Work Based Learning	Other (specify)
Yes					

*If the Delivery Method is **Classroom Based** please complete the following table:*

	Activity (lecture, seminar, tutorial, workshop)	**Activity Duration - Hrs**	**Comments**	**Learning Outcomes**
1	Lectures and student presentations	36h		Lo 1-5
	Total Hours	**36h**		

If delivery method is *not* classroom based state lecturer hours to support delivery	Two 20 minutes academic tutorials per student per module

4. Learning Resources

To include contextualised Reading List.

Highly Recommended

Boutros, T and Cardella, J. (2016) *The Basics of Process Improvement*. Boca Raton: CRC Press

Jones, P. and Robinson, P. (2012) *Operations Management.* Oxford: OUP

Page, S. (2015) *The Power of Business Process Improvement: 10 Simple Steps to Increase Effectiveness, Efficiency, and Adaptability.* New York: AMACOM

Schaeffer, E. and Sovie, E. (2019) *Reinventing the Product: How to Transform your Business and Create Value in the Digital Age*. N.L.: Kogan Page

Slack, N., Brandon-Jones, R., Johnson, R. (2016) *Operations Management.* Harlow: Pearson