UNIVERSITY OF WARWICK

Proposal Form for New or Revised Modules (MA1 - version 7 - April 2014)

Approval information	
Approval Type	Revised module
Date of Introduction/Change	October 2017
If new, does this module replace another? If so, enter module code and title:	N/A
If revised/discontinued, please outline the rationale for the changes:	This is an established module, running since 2003. No changes, existing MA1 no longer on system.
Confirmation that affected departments have been consulted:	Changes were made in consultation with the School of Engineering and WMG..

Module Summary	
1. Module Code (if known)	ES438
2. Module Title	Quality Systems
3a. Lead department:	WMG
3b. Teaching Split (if known):	100% WMG
4. Name of module leader	Graeme Knowles
5. Level	PG: X☐ Level 7 (Masters) See Guidance Notes for relationship to years of study
6. Credit value(s) (CATS)	15
7. Principal Module Aims	This module focuses on the management of quality particularly from a strategic perspective and its management and application in an engineering organisation. The impact of company-wide quality systems will be analysed along with the latest concepts and modern practices in the field of quality management.
8. Principal Learning	By the end of the module the student should be able to...

Module Summary	
Outcomes	• Evaluate a range of quality philosophies and models; compare their strengths and limitations, and assess the potential impact on organizational performance. • Synthesise effective approaches to leading and managing in engineering organizations from a range of principles and practice. • Make robust decisions considering a range of factors including numerical data, human factors and business principles. • Design effective change management approaches incorporating systems thinking, individual motivation and appropriate change models. • Create and deploy quality strategies to deliver business improvement. • Assess the quality of their own work and reflect upon their experiences and practice. • Effectively present their understanding and ideas in both oral and written form.
9. Timetabled Teaching Activities (summary)	Lectures : 26 x 1 hours Laboratory/Seminars: 3 Hours Group Presentation 1 x 3 hours Total 32 hours
10. Departmental Web-link	http://www2.warwick.ac.uk/fac/sci/eng/eso/modules/year4/
11. Other essential notes	Advice and feedback hours are available for answering questions on the lecture material, theory and exam papers.
12. Assessment methods (summary)	Critical Assessment of the Literature 3000 words: 20% Reflective Writing: 10% Group Oral Presentation, including peer assessment: 20% 2 hr written examination: 50% Students should pass the examination and pass the coursework overall.

For use by Strategic Planning and Analytics Office only - Do not fill in this section

Level	JACS3 Code	Teaching Split
		If not provided in 3b above

External Credit Level		Scheme	

Module Context

13. Please list all departments involved in the teaching of this module. If taught by more than one department, please indicate percentage split.

100% WMG.

14. Availability of module

Degree Code	Title	Study Year	C/OC/ A/B/C	Credits
H107	MEng Engineering and variants	4	A/B	15 CATS
H109	MEng Engineering with Intercalated Year	5	A	15 CATS
H110	MEng Engineering with a Year in Research	5	A	15 CATS
H211	MEng Civil Engineering and variants	4	B/Core	15 CATS
H212	MEng Civil Engineering with Intercalated Year	5	B	15 CATS
H213	MEng Civil Engineering with a Year in Research	5	B	15 CATS
H311	MEng Mechanical Engineering and variants	4	B/Core	15 CATS
H312	MEng Mechanical Engineering with Intercalated Year	5	B	15 CATS
H313	MEng Mechanical Engineering with a Year in Research	5	B	15 CATS
H331	MEng Automotive Engineering	4	B/C	15 CATS
H332	MEng Automotive Engineering with Intercalated Year	5	B	15 CATS
H333	MEng Automotive Engineering with a Year in Research	5	B	15 CATS
H635	MEng Electronic Engineering and variants	4	A/Core	15 CATS
H636	MEng Electronic Engineering with Intercalated Year	5	A	15 CATS
H637	MEng Electronic Engineering with a Year in Research	5	A	15 CATS
HH63	MEng Systems Engineering and variants	4	B/Core	15 CATS
HH64	MEng Systems Engineering with Intercalated Year	5	A	15 CATS
HH65	MEng Systems Engineering with a Year in Research	5	A	15 CATS
HH37	MEng Manufacturing & Mechanical Engineering	4	B	15 CATS
HH38	MEng Manufacturing & Mechanical	4	B	15 CATS

Module Context				
	with Intercalated Year			
HH39	**MEng Manufacturing & Mechanical with a Year in Research**	**4**	**A**	**15 CATS**
15. Minimum number of registered students required for module to run				
1 (core)				
16. Pre- and Post-Requisite Modules				
None				

Module Content and Teaching		
17. Teaching and Learning Activities *(totals for module – please see guidance)*		
Module duration (weeks)	10	
Lectures	26 x 1 hour	
Seminars	1 x 3 hour group presentation	
Tutorials	-	
Project Supervision	-	
Demonstration	-	
Practical Class/Workshops	1 x 3 hour	
Supervised time in studio/workshop	-	
Fieldwork	-	
External visits	-	
Work based learning	-	
Placement	**-**	
Year abroad	**-**	
Other activity:	Guided independent learning 124 hours	
18. Assessment Method (Standard)		
Type of assessment	**Length**	**% weighting**
Written Examinations	2 Hours	**50%**
Practical Examinations		
Assessed essays/coursework	Critical Assessment of the Literature 3000 words Individual Reflective Writing Group Oral Presentation, including peer assessment	**20%** **10%** **20%**

Module Content and Teaching	
18a. Final chronological assessment *(please see guidance*)	Examination (50%).

19. Methods for providing feedback on assessment.

Written comments on submitted assignment including response to self- assessment and written group feedback.
Support through office hours.
Cohort level feedback on examinations.

20. Outline Syllabus

Introduction:
Quality philosophies and systems: DSoPK, Deliberately Developmental Organizations, Customer Driven Organizations
Initiating and Managing Change: Organisational change; human aspects.
People (motivation, management, importance to success)
Leadership (what it is, why it matters, key theories, impact)
EFQM Model (how it helps, how it works, strengths and weaknesses)
Strategy (treating quality as a strategic initiative, linking quality to business goals and processes)
Service Quality (links to Manufacturing, unique features, SERVQUAL, Customer Journey)
Management Decision Making (emotional context, use of data)
Partnerships and Resources (Looking outside the organization to customers and suppliers, managing by the means)
Organisational Learning (what it is, how to measure it, how to support and measure it)

21. Illustrative Bibliography

Quality Management e-book (2011); Graeme Knowles; http://bookboon.com/en/quality-management-ebook ISBN: 0-945320-45-0 (free downloadable PDF written specifically to support the course)

Six Sigma e-book (2011); Graeme Knowles; http://bookboon.com/en/six-sigma-ebook ISBN: 0-945320-45-0 (free downloadable PDF written specifically to support the course)

Quality Management for Organizational Excellence: Introduction to Total Quality 8th Edition (2016); D.L. Goetsch & S. Davis; Pearson; ISBN-13: 9780133791853

Out of the Crisis: Quality Productivity and Competitive Position.(2000); Deming, W.E; MIT Press; ISBN 9780262541152

Leaders Eat Last: Why Some Teams Pull Together and Others Don't (2014); S. Sinek; Penguin

Random House; ISBN 2901591845323

Drive: The Surprising Truth About What Motivates Us (2011); D. Pink; Riverhead Books; ISBN 9781594484803

22. Learning outcomes

Successful completion of the module leads to the learning outcomes. The learning outcomes identify the knowledge, skills and attributes developed by the module.

Learning Outcomes should be presented in the format "By the end of the module students should be able to..." using the table at the end of the module approval form:

See table at the end of this form.

Resources

23. List any additional requirements and indicate the outcome of any discussions about these.

Approval

24. Module leader's signature	Graeme Knowles
25. Date of approval	Teaching Policy Committee Chair's Action 4 April 2017
26. Name of Approving Committee (include minute reference if applicable)	School of Engineering and WMG Teaching Policy Committee
27. Chair of Committee's signature	Professor Gill Cooke
28. Head of Department(s) signature	Professor Nigel Stocks

Examination Information		
A1. Name of examiner (if different from module leader)		
A2. Indicate all available methods of assessment in the table below		
% Examined	**% Assessed by other methods**	**Length of examination paper**
50	Critical Assessment of the Literature 3000 words: 20% Reflective Writing: 10% Group Oral Presentation, including peer assessment: 20%	**2 hours**
A3. Will this module be examined together with any other module (sectioned paper)? If so, please give details below.		
A4. How many papers will the module be examined by?	☒ 1 paper	☐ 2 papers
A5. When would you wish the exam take place (e.g. Jan, April, Summer)?	**Summer**	
A6. Is reading time required?	☐ Yes	☒ No
A7. Please specify any special exam timetable arrangements.		
A8. Stationery requirements		
No. of Answer books?	**1**	
Graph paper?	**Y**	
Calculator?	**Yes**	
Any other special stationery requirements (e.g. Data books, tables etc.)?	**Engineering Data Book**	
A9. Type of examination paper		
Seen?	☐ Yes	☒ No
Open Book?	☐ Yes	☒ No

Examination Information		
Restricted?	☐ Yes	☒ No
If restricted, please provide a list of permitted texts:		

LEARNING OUTCOMES		
(By the end of the module the student should be able to....)	**Which teaching and learning methods enable students to achieve this learning outcome? (reference activities in section 15)**	**Which summative assessment method(s) will measure the achievement of this learning outcome? (reference activities in section 16)**
Evaluate a range of quality philosophies and models; compare their strengths and limitations, and assess the potential impact on organizational performance.	Lectures, seminars/laboratories, group work	Group and individual assignments and examination.
Synthesise effective approaches to leading and managing in organizations from a range of principles and practice.	Lectures, seminars/laboratories, group work	Group and individual assignments and examination.
Make robust decisions considering a range of factors including numerical data, human factors and business principles.	Lectures, seminars/laboratories, group work	Group and individual assignments and examination.
Design effective change management approaches incorporating systems thinking, individual motivation and appropriate change models.	Lectures, seminars/laboratories, group work	Group and individual assignments and examination.
Create and deploy quality strategies to deliver business improvement.	Lectures, seminars/laboratories, group work	Group and individual assignments and examination.
Assess the quality of their own work and reflect upon their experiences and practice.	Self-assessment session, seminars/laboratories, group work	Individual assignment and reflective writing piece.
Effectively present their understanding and ideas in both oral and written form.	Seminars/laboratories, group work	Individual assignment, group presentation and reflective writing piece.