

TOTAL QUALITY MANAGEMENT

Course code	<i>MNG164</i>
Compulsory in the programmes	<i>Industrial Technology Management</i>
Level of studies	<i>Undergraduate</i>
Number of credits	<i>6 ECTS (48 in-class hours + 6 consultation hours + 2 exam hours, 104 individual work hours)</i>
Course coordinator (title and name)	<i>Karolis Skanas</i>
Prerequisites	
Language of instruction	<i>English</i>

THE AIM OF THE COURSE:

Total quality management (TQM) is an introductory course for understanding quality management processes and its implementation within companies. The course will cover quality management theories, business processes related with quality assurance, concepts, techniques, methods, tools and their practical applications.

After completing the course, students should be able to explain the concepts of business processes to ensure quality management, diagnose problems in quality improvement process, apply various quality improvement techniques, explain total quality implementation phases and list the steps that are associated with each phase, propose how business leaders might plan and execute quality management strategies to gain and sustain a competitive advantage in today's global business arena and communicate why TQM is fundamental for all organizations.

MAPPING OF COURSE LEVEL LEARNING OUTCOMES (OBJECTIVES) WITH DEGREE LEVEL LEARNING OBJECTIVES (See Annex), ASSESMENT AND TEACHING METHODS

Course level learning outcomes (objectives)	Degree level learning objectives (Number of LO)	Assessment methods	Teaching methods
CLO1. Ability to explain the main concepts, methodologies, and tools of business process in the context of total quality management.	BLO1.1, BLO1.2, BLO4.1, BLO4.2, BLO4.3	Practical sessions in organizations, final practical assignment, class participation (discussions and case studies)	Lectures, tutorials, discussions of case studies, individual assignments, and group project.
CLO2. Ability to apply the methodologies and tools of business process and total quality management.	BLO1.1, BLO1.2, BLO4.1, BLO4.2, BLO4.3	Practical sessions in organizations, final practical assignment, class participation (discussions and case studies)	Lectures, tutorials, discussions of case studies, individual assignments, and group project.
CLO3. Ability to analyse and evaluate methodologies and tools of business process and total quality management.	BLO1.1, BLO1.2, BLO4.1, BLO4.2, BLO4.3	Practical sessions in organizations, final practical assignment, class participation (discussions and case studies)	Lectures, tutorials, discussions of case studies, individual assignments, and group project.

ACADEMIC HONESTY AND INTEGRITY

The ISM University of Management and Economics Code of Ethics, including cheating and plagiarism are fully applicable and will be strictly enforced in the course. Academic dishonesty, and cheating can and will lead to a report to the ISM Committee of Ethics. With regard to remote learning, ISM remind students that they are expected to adhere and maintain the same academic honesty and integrity that they would in a classroom setting.

COURSE OUTLINE

Topic	In-class hours	Readings
The concept of business process	2	Aguilar-Savén, Ruth. (2004). Business process modelling: Review and framework. International Journal of Production Economics. 90. 129-149.
Concepts of ISO / Lean / TPM / Six sigma	2	Singh, Kanwarpreet & Ahuja, Inderpreet. (2012). Transfusion of Total Quality Management and Total Productive Maintenance: A literature review. International Journal of Technology. David Mann (2005). Creating Lean Culture, Part 1 David Mann (2005). Creating Lean Culture, Chapter 3.
Lean history. Key elements (pillars) of Lean	4	R. Sundar, A.N. Balaji, R.M. Satheesh Kumar (2014), A Review on Lean Manufacturing Implementation Techniques, Procedia Engineering, Volume 97. Samuel Obara, Daril Wilburn (2012). TOYOTA by TOYOTA: Reflections from the Inside Leaders on the Techniques That Revolutionized the Industry
Concepts of losses. Ability to identify losses. Value stream map. Loss tree.	4	Mike Rother, John Shook (1999), Learning to see. I chapter. Tokutaro Suzuki (1994), TPM in process industries. Chapter 2.
Production loss analysis. OEE. Yields	2	Masaji Tajiri, Fumio Gotoh (1999), Autonomous Maintenance in seven steps. Implementing TPM on the shop floor. Chapter 1.
Focused improvement projects. Problem solving methods	2	Tokutaro Suzuki (1994), TPM in process industries. Chapter 3.
Problem solving: 5 why + fishbone	4	Taiichi Ohno (1988). Toyoya Production System. Chapter 2. Samuel Obara, Daril Wilburn (2012). TOYOTA by TOYOTA: Reflections from the Inside Leaders on the Techniques That Revolutionized the Industry. Chapter 5.

Problem solving: A3 method	4	David Mann (2005). Creating Lean Culture, Chapter 8. Durward K. Sobek II., Art Smalley (2008). Understanding A3 Thinking: A Critical Component of Toyota's PDCA Management System.
DMS (daily management systems). Concept of KPI's / KAI's	4	David Mann (2005). Creating Lean Culture, Chapter 1.
Process mapping: tools and methods	4	Jeyaraj, A. N. A. N. D., Sauter, V. L., & St, M. (2014). Validation of business process models using swimlane diagrams. Journal of Information Technology Management, 25(4), 27-37. Aij, K. H., Simons, F. E., Visse, M., & Widdershoven, G. A. (2014). A focus on throughput: Lean improvement of nurse scheduling in the operating theatre. Glob J Manage Bus Res, 47(1), 81-87.
Standard work. TWI method	4	Samuel Obara, Darril Wilburn (2012). TOYOTA by TOYOTA: Reflections from the Inside Leaders on the Techniques That Revolutionized the Industry. Chapter 2 War manpower commission (1945). The Training within industry report 1940-1945
LSW (leader standard work)	4	David Mann (2005). Creating Lean Culture, Chapter 3. Kupec, Stephanie MSN, RN; Reinemann, Michael MSN, RN; Selley, Victoria H. DO, MS, FACOEP; Graves, Elsie MHSA, RN; Carlson, Jestin N. MD, MS, MHA. Leader Standard Work: A Model for Improving Efficiencies in Leadership and Healthcare. JONA: The Journal of Nursing Administration 52(6):p 327-329, June 2022
Training & Development process. Skill matrix	4	Tokutaro Suzuki (1994), TPM in process industries. Chapter 8.
Early process management process	2	Tokutaro Suzuki (1994), TPM in process industries. Chapter 6.
Environment / Health and safety processes	2	Tokutaro Suzuki (1994), TPM in process industries. Chapter 10
	Total: 48 hours	
CONSULTATIONS	4	

FINAL EXAM	2	
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FINAL GRADE COMPOSITION

Type of assignment	%
<i>Group Assignments 40%</i>	
Practical sessions in groups	40%
<i>Individual Components 60%</i>	
Final exam	40%
Participation and engagement	20%
Total:	100%

DESCRIPTION AND GRADING CRITERIA OF EACH ASSIGNMENT

Assessment 1. Focused improvement project preparation

Groups of students will be formed. Each group will be allowed to choose any process they would like to improve. Students will have to use preferred process mapping and problem-solving tools / templates to prepare improvement project presentation. Group assignment is worth 40% of final grade.

Assessment 2. Participation.

Throughout the course, students will be assessed on their contribution to activities in class, pre-class and/or post-class tasks. Using multisource evaluation, lecturer will make an appraisal of your contribution. Participation is worth 20% of final grade.

Assessment 3. Examination. The examination will test your knowledge of the all material covered in this module. Final exam is worth 40% of final grade.

RETAKE POLICY

Re-take of the exam. Students who receive a failing final grade shall have the right to re-take the exam. Retake will account for 40 % of all evaluation. There are no retakes for the Assessments 1 & 2.

REQUIRED READINGS

1. Liker, Jeffrey K. (2004). The Toyota way : 14 management principles from the world's greatest manufacturer. New York :McGraw-Hill, ChicagoThe Toyota Kaizen Continuum: A Practical Guide to Implementing Lean - John Stewart;
2. Womack, J. P., Jones, D. T., & Roos, D. (2007). *The machine that changed the world*. Free Press.
3. Aguilar-Savén, Ruth. (2004). Business process modelling: Review and framework. International Journal of Production Economics. 90. 129-149.

ANNEX

DEGREE LEVEL LEARNING OBJECTIVES

Learning objectives for the Bachelor of Business Management

Programmes:

*International Business and Communication,
Business Management and Marketing, Finance,
Industrial Technology Management*

Learning Goals	Learning Objectives
Students will be critical thinkers	BLO1.1. Students will be able to understand core concepts and methods in the business disciplines
	BLO1.2. Students will be able to conduct a contextual analysis to identify a problem associated with their discipline, to generate managerial options and propose viable solutions
Students will be socially responsible in their related discipline	BLO2.1. Students will be knowledgeable about ethics and social responsibility
Students will be technology agile	BLO3.1. Students will demonstrate proficiency in common business software packages
	BLO3.2. Students will be able to make decisions using appropriate IT tools
Students will be effective communicators	BLO4.1. Students will be able to communicate reasonably in different settings according to target audience tasks and situations
	BLO4.2. Students will be able to convey their ideas effectively through an oral presentation
	BLO4.3. Students will be able to convey their ideas effectively in a written paper

Learning objectives for the Bachelor of Social Science

Programmes:

*Economics and Data Analytics,
Economics and Politics*

Learning Goals	Learning Objectives
Students will be critical thinkers	ELO1.1. Students will be able to understand core concepts and methods in the key economics disciplines
	ELO1.2. Students will be able to identify underlying assumptions and logical consistency of causal statements
Students will have skills to employ economic thought for the common good	ELO2.1. Students will have a keen sense of ethical criteria for practical problem-solving
Students will be technology agile	ELO3.1. Students will demonstrate proficiency in common business software packages
	ELO3.2. Students will be able to make decisions using appropriate IT tools
Students will be effective communicators	ELO4.1. Students will be able to communicate reasonably in different settings according to target audience tasks and situations
	ELO4.2. Students will be able to convey their ideas effectively through an oral presentation
	ELO4.3. Students will be able to convey their ideas effectively in a written paper