



Course Descriptor
[ENGR301 Managing Engineering Organization]

Proposed Academic Year	2019-2020	Last Reviewed Academic Year	2020-2021
Course Code	ENGR301	Course Title	Managing Engineering Organization
Credit hours	3	Level of study	Undergraduate
College / Centre	College of Engineering	Department	Civil & Environmental Engineering
Co-requisites		Pre-requisites	

1. COURSE OUTLINE

[This course introduces students to the roles and functions of managers. The content includes an introduction to engineering organizations and the need and nature of management. It examines the evolution of management theory, organizational environmental, corporate social responsibility and business ethics. The course also includes a detailed investigation of the functions of management: planning and decision making, organization, leadership and human motivation, and control]

2. AIMS

[This course aims to develop students' awareness of organizations and the variety of skills that are useful in managerial roles. It fosters a spirit of critical enquiry and provides the framework for understanding the issues in managing engineering organizations. The course will help students to be more effective contributors to engineering organizations or other firms that they may eventually join..]

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
Upon successful completion of this course, students will be able to:		
1. Explain foundational contributions to management theories to inform contemporary management practices in engineering organizations	Lectures, Tutorials; Group work and seminars; etc	Quiz, Written Examination
2. Analyze organizational issues and justify recommendations based on established management theories	Lectures, Tutorials; Group work and seminars; etc	Quiz; Written Examination
3. Critically evaluate key management concepts within the context of engineering organizations	Lectures, Tutorials; Group work and seminars; etc	Assignment, Written Examination
4. Research, synthesise, and	Lectures, Tutorials; Group	Assignment, Written



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apply knowledge from a variety of sources to solution of managerial and organizational problems	work and seminars; etc	Examination
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4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Quiz	20
Mid-term Examination	20
Participation and assignments	20
Final Examination	40
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve **3** credit hours for this course by passing **ALL** of the course assessments and achieving a **minimum overall score of 50%**

NB *Ensure that ALL learning outcomes are taken into account

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6. COURSE CONTENT (Indicative)

LECTURE TOPIC	TIME (HOURS)
Syllabus presentation	1.5
General presentation of main topics	1.5
Main responsibilities of managers	1.5
Responsibilities during projects phases	1.5
Needed skills of managers	1.5
Leadership	1.5
Effective delegation	1.5
Change management	1.5
Marketing strategies	1.5
Bid/no bid decision	1.5
Proposal development	1.5
Pricing considerations	1.5
Proposal evaluation	1.5



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Type of contracts	1.5
Decision making principles	1.5
Multi-objectives decisions	1.5
Decision making using Excel	1.5
Exercises 02 on Excel	1.5
Exercises 03 on Excel	1.5
Exercises 04 on Excel	1.5
Introduction to Quality Management System	1.5
Definitions and terminology of QMS	1.5
Comparison with traditional management	1.5
Principles of QMS	1.5
Introduction to ISO 9001:2015	1.5
Benefits of ISO 9001	1.5
Real examples on QMS	1.5
Exercises	1.5
Exercises and global revision	3
TOTAL HOURS	45
Plus RECOMMENDED INDEPENDENT STUDY HOURS	90
TOTAL COURSE HOURS	135

Core text/s:

John M. Nicholas & Herman Steyn (2012) Project Management for Business, Engineering and Technology (4th edition), Routledge

Library + online resources:

Benator, Barry, and Albert Thumann. Project Management and Leadership Skills for Engineering and Construction Projects. Fairmont Press, 2003

(<https://www.pdfdrive.com/search?q=Project+Management+and+Leadership+Skills+for+Engineering+and+Construction+Projects&pagecount=&pubyear=&searchin=&more=true>).

Sidney M. Levy (2011) Project Management in Construction (6th Edition), McGraw-Hill Education

Eric Verzuh (2003) The Portable MBA in Project Management (1th edition), Wiley