

Program Operational Plan Report

Master of Science (MSc.) in Engineering Management

(2024-2025), 461-462



Operational Plan Report for the Academic Year: 2024-2025

MSc in Engineering Management

The Concept of the Operational Plan for Academic Programs

The operational plan details step and processes to achieve academic program objectives effectively. This plan includes the following:

- **Objectives:** The plan specifies the goals that the program aims to achieve.
- **Activities:** The plan outlines the activities and events that will be implemented to achieve the goals.
- **Responsibilities:** The plan identifies the individuals or teams responsible for implementing each activity.
- **Resources:** The plan specifies the financial and human resources required to implement the program.
- **Evaluation:** The plan describes how to assess the achievement of the program's objectives.

Academic Program Information

Program Details	
College	College of Engineering
Department	Department of Industrial Engineering
Program	Master of Science (MSc.) in Engineering Management

The operational plan report is essential for the effective execution of the academic program. Regularly drafting, reviewing, and updating it helps the university achieve program goals and enhance education quality

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Alignment of Program Objectives with the Mission of the Program, College, and University

University Mission	College Mission	Program Mission	Main Directions	Program Objectives
An invigorating academic setting that fosters knowledge creation and application, champions research and innovation, emphasizes societal responsibility, and advances sustainable development by maximizing our potential and resources.	To achieve academic excellence by providing adequate teaching-learning resources, motivating scientific research, and bring forth qualified engineers to serve the community.”	To cultivate ethically grounded professionals who master the synergy of engineering and management. We prepare our graduates to solve complex industrial challenges, lead diverse teams, and pioneer sustainable solutions for the evolving global economy	Teaching and Learning	Provide quality teaching in engineering management that builds up graduates’ technical, analytical, and professional competencies based on modern developments and made possible through local and global collaborations.
			Research and Innovation	Perform innovations and applications of research in engineering management that align with national strategies, industry requirements, and sustainable economic development.
			Social responsibility	Equip graduates with excellent communication, teamwork, and leadership skills necessary for commitment to societal impact of technology through ethical professional conduct.
			University Life	
			Institutional Excellence	Ensure efficient and resourcefulness of program to encourage lifelong learning and support emerging sustainable economy.
			Revenue and Sustainability	

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MSc. in Engineering Management Program Objective No. 1	<i>Excellence in Teaching and Learning</i>	Responsibility for Implementation: Department Council
Description of Objective	Provide quality teaching in engineering management that builds up graduates' technical, analytical, and professional competencies based on modern developments and made possible through local and global collaborations.	
Expected Risks	<ul style="list-style-type: none">➤ Curriculum becomes outdated and misaligned with industry needs.➤ Use of outdated teaching methods➤ Weak assessment design and moderation➤ Low student satisfaction with courses➤ Insufficient learning resources	
Risk Management Plan	<ul style="list-style-type: none">➤ Conduct annual curriculum review and benchmarking against leading universities and industry expectations.➤ Provide regular faculty development on active learning, case teaching, and educational technology.➤ Implement peer review, moderation, and assessment blueprinting.➤ Analyze feedback each semester and implement documented action plans.➤ Ensure access to databases, software, and library resources	

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Sl. No	Key Performance Indicators	KPI Codes	Target Performance Level	Current year Performance Level	Measurement Method/ Frequency	Responsibility For Measurement	Responsibility of the Review
1	Students' evaluation of the quality of learning experience in the program	KPI-1	≥ 4.0	4.14	University experience survey / Annual	Academic Development and Quality Committee	Chairman and Quality Unit
2	Students' evaluation of the quality of the courses	KPI- 2	≥ 4.0	4.15	End-of-semester course evaluation forms	Academic Development and Quality Committee	Chairman and Quality Unit
3	Students' evaluation of the quality of academic supervision	KPI- 3	≥ 4.0	4.12	Supervision satisfaction survey / Annual	Project committee	Chairman and Quality Unit
4	Average time for students' graduation	KPI- 4	≤ 2.5 Years	2	Student records system — enrolment to graduation dates / Annual	Program coordinator	Chairman and Quality Unit
5	Ratio of students to faculty members	KPI-8	15:1	02:1	Enrolled students ÷ full-time equivalent faculty / Annual	Program coordinator	Chairman and Quality Unit

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MSc. in Engineering Management Program Objective No. 2	<i>Contribution to Research and Innovation</i>	Responsibility for Implementation: Department Council
Description of Objective	Perform innovations and applications of research in engineering management that align with national strategies, industry requirements, and sustainable economic development.	
Expected Risks	<ul style="list-style-type: none">➤ Low faculty research productivity.➤ Limited student publication output.➤ No patent or innovation outputs and Weak industry collaboration.➤ Research topics not aligned with national priorities and Limited research funding.	
Risk Management Plan	<ul style="list-style-type: none">➤ Seek external funding and industry partnerships; optimize resource sharing with other departments; apply for government and international grants.➤ Introduce mentoring, incentives, and writing group and implement thesis-to-publication support and conference funding➤ Strengthen collaborations with local government units; encourage student involvement in community-based projects; integrate simulation and case-based learning.➤ Foster stronger academic linkages through MoUs; participate in professional and international academic networks; conduct joint research and benchmarking activities.	

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Sl. No	Key Performance Indicators	KPI Codes	Target Performance Level	Current year Performance Level	Measurement Method / Frequency	Responsibility For Measurement	Responsibility of the Review
6	Percentage of publications of faculty members	KPI-9	≥70%	50%	% of faculty with ≥ 1 publication in past 2 years / Annual	Academic Development and Quality Committee	Chairman and Quality Unit
7	Rate of published research per faculty member	KPI-10	≥2/year /Faculty	5.625	indexed publications per faculty / Annual	Academic Development and Quality Committee	Chairman and Quality Unit
8	Citations rate in refereed journals per faculty member	KPI-11	≥5/year /Faculty	10	Total citations ÷ total faculty / Annual	Academic Development and Quality Committee and Project Committee	Chairman and Quality Unit
9	Percentage of students' publication	KPI-12	≥40%	0	% of graduates with ≥ 1 publication / Annual	Academic Development and Quality Committee and Project Committee	Chairman and Quality Unit
10	Number of patents, innovative products, and awards of excellence	KPI-13	≥2	0	Registered patents + commercially developed products / Annual	Academic Development and Quality Committee and Project Committee	Chairman and Quality Unit

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MSc. in Engineering Management Program Objective No. 3	<i>Ethical Responsibility, Professional Competency and University Life</i>	Responsibility for Implementation: Department Council
Description of Objective	Equip graduates with excellent communication, teamwork, and leadership skills necessary for commitment to societal impact of technology through ethical professional conduct.	
Expected Risks	<ul style="list-style-type: none">➤ Insufficient attention to ethics and academic integrity and Limited opportunities to develop leadership and communication skills.➤ Low student engagement in extracurricular and professional activities and Weak teamwork in courses.➤ Inadequate employer feedback and response from external stakeholders.	
Risk Management Plan	<ul style="list-style-type: none">➤ Require training in ethics, plagiarism prevention, and responsible AI use and Conduct workshops, seminars, and team-based projects➤ Encourage conference participation and society membership and Use structured group projects and peer evaluation.➤ Conduct employer surveys and advisory board consultations and more involvement of external stakeholders in curriculum development and long-life learning initiatives.	

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Sl. No	Key Performance Indicators	KPI Codes	Target Performance Level	Current year Performance Level	Measurement Method / Frequency	Responsibility For Measurement	Responsibility of the Review
11	Students' evaluation of the quality of academic supervision	KPI-3	≥ 4.0	4.12	Supervision satisfaction survey / Annual	Academic Development and Quality Committee	Chairman and Quality Unit
12	Employers' evaluation of the program graduates' competency	KPI-6	≥ 4.0	4.37	Employer evaluation survey / Annual	Academic Development and Quality Committee	Chairman and Quality Unit

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MSc. in Engineering Management Program Objective No. 4	<i>Excellence, Sustainability, and Lifelong Development</i>	Responsibility for Implementation: Department Council
Description of Objective	Ensure efficient and resourcefulness of program to encourage lifelong learning and support emerging sustainable economy.	
Expected Risks	<ul style="list-style-type: none">➤ Delayed student progression and thesis completion and High dropout rate.➤ Low satisfaction with student services and Limited alumni engagement.➤ Students may lack understanding of the benefits and pathways of graduate education, reducing motivation to pursue advanced studies.➤ Faculty overload and Budget constraints for providing the resources to deliver excellent education service	
Risk Management Plan	<ul style="list-style-type: none">➤ Encourage student participation in discussions and Implement milestone tracking and regular supervision reviews and provide early academic intervention and student support services.➤ Graduate application workshops; Review survey results and coordinate improvements with support units.➤ build linkages and Establish alumni network and annual engagement events➤ Implement formal mentorship programs; provide training for faculty advisers➤ Conduct orientation sessions, graduate education fairs, and alumni talks; highlight success stories of graduates in research careers; integrate research career discussions in advising.	

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Sl. No	Key Performance Indicators	KPI Codes	Target Performance Level	Current year Performance Level	Measurement Method / Frequency	Responsibility For Measurement	Responsibility of the Review
13	Students' Evaluation of Quality of learning experience in the program	KPI-1	≥ 4.0	4.14	Annual program survey / Annual	Academic Development and Quality Committee	Chairman and Quality Unit
14	students evaluation of the quality of the courses	KPI-2	≥ 4.0	4.15	End-of-semester course evaluation forms	Academic Development and Quality Committee and Project Committee	Chairman and Quality Unit
15	Average time for students' graduation	KPI-4	≤ 2.5 Years	2	Student records system — enrolment to graduation dates / Annual	Program Coordinator	Chairman and Quality Unit
16	Rate of students dropping out of the program	KPI-5	$\leq 10\%$	0	Withdrawal and transfer records per cohort / Annual	Program Coordinator	Chairman and Quality Unit
17	Students Satisfaction with the service provided	KPI-7	≥ 4.0	3.98	Student services satisfaction survey / Annual	Academic Development and Quality Committee	Chairman and Quality Unit

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Approval

Position	Name	Signature
Chairman	Dr. Ali Almuflih	
Academic Development and Quality Committee Coordinator	Dr. Raafat Elshaer	

Council / Committee	Academic Development and Quality Committee
Reference No.	QADC-MScEM-1-471
Date	Sept 2, 2025