

Program Operational Plan Report

Master of Science (MSc.) in Engineering Management

(2023-2024), 451-452



Operational Plan Report for the Academic Year: 2023-2024

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

مدى التكامل والاتساق Extent of Integration	أهداف البرنامج – Program	أهداف القسم - Department	أهداف الكلية – College	أهداف الجامعة - University
Advancements in providing innovative Engineering solutions that meet different market needs.	Lead in providing innovative Engineering solutions that meet different market needs.	To be able to analyse problems and create innovative industrial engineering designs considering functionality, cost effectiveness, sustainability, safety, aesthetics, and satisfy.	Academic excellence through development of curriculum at par with national and international standards.	To enhance teaching and learning quality.
Future Prosper in Address social and ethical issues in the Engineering field to ensure economic and safe environment for everyone	Address social and ethical issues in the Engineering field to ensure economic and safe environment for everyone	To use modern technology and design tools, work individually and in a team effectively, and communicate ideas in written, oral, and graphical form clearly.	Collaboration with colleges/universities for knowledge sharing and benchmarking. Support innovative research to contribute to achieving the vision of King Khalid University.	To provide a facilitative academic environment.
Development in professional competencies such as excellent communication skills and productive teamwork	Demonstrate professional competencies such as excellent communication skills and productive teamwork	To increase their personal knowledge and skills professionally and academically.	Interaction with industries to produce trained and skilled graduates, solve real-life problems and obtain feedback for continuous improvement.	To promote effective partnership with the community. To support and promote scientific research.
Further enhancements in studies in the field of Engineering or similar disciplines and engage in life-long learning	Pursue further studies in the field of Engineering or similar disciplines and engage in life-long learning	To serve ethically as a team member or as a team leader to improve their communities.	Contribute to the sustainable development of the community by continuing education, training, and consultancy services. Improvement in financial resources	To develop institutional performance. To improve graduate studies. To increase financial resources

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MSc. in Engineering Management Program Objective No. 1	<i>Developing competition skills</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' enrolment rate	KPI-1	70%	82	University experience survey / Annual	Quality and Research Unit	Chairman and Quality Unit
2	Students' assessment of the quality of courses	KPI- 2	4	4.39	Data Analysis / Annual	Quality and Unit	Chairman and Quality Unit
3	Percentage of Students that entered the programs and had completed the first year	KPI- 3	90%	100%	survey / Annual	Project committee	Chairman and Quality Unit
4	Percentage of Students that entered the program and completed the program in minimum of a time	KPI- 4	90%	100%	Data Analysis / Annual	Program coordinator	Chairman and Quality Unit

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MSc. in Engineering Management Program Objective No. 2	<i>innovation and scientific research</i>	Responsibility for Implementation: Department Council
Description of Objective	Raising the standards of innovation and scientific research in relation to development priorities.	
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
5	Average of reviewed papers published in Scientific and technological fields	KPI-5	2	4.33	Data Analysis / Annual	Quality and Research Unit	Chairman and Quality Unit
6	Number of publications in ISI journals in the past year to the overall number of full-time faculty members	KPI-6	2	7.33	Data Analysis / Annual	Quality and Student affairs Unit	Chairman and Quality Unit
7	Number of reference citations to the overall number of full-time faculty	KPI-7	2	9.63	Data Analysis / Annual	Quality and Project Unit	Chairman and Quality Unit
8	Percentage full-time faculty members that published at least one paper in the past year	KPI-8	70%	83.30	University experience survey / Annual	Quality and Project Unit	Chairman and Quality Unit

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MSc. in Engineering Management Program Objective No. 3	<i>Responsibility and community participation</i>	Responsibility for Implementation: Department Council
Description of Objective	Strengthening the responsibility and community participation.	
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
9	Increasing percentage of registered students in continuous learning programs	KPI-9	30%	20%	Data Analysis / Annual	Quality and Research Unit	Chairman and Quality Unit
10	level of students' satisfaction with continuous learning programs	KPI-10	70%	82.55%	Data Analysis / Annual	Quality and Research Unit	Chairman and Quality Unit

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Approval

Position	Name	Signature
Chairman	Dr Ali Almuflih	
Academic Development and Quality Committee Coordinator	D. Osama Moshebah	

Council / Committee	Academic Development and Quality Committee
Reference No.	QADC-MScEM-1-461
Date	Sept 3, 2024