هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

Program Specification

Program Name: Industrial Engineering
Qualification Level: Bachelor of Science
Department: Industrial Engineering
College: College of Engineering in Al-Qunfudah
Institution: Umm Al-Qura University

Content

A. Program Identification and General Information

1. Program Main Location:

Industrial Engineering Department, Engineering College, Umm Al-Qura University, Alqunfudhah

2. Branches Offering the Program:

N/A

3. Reasons for Establishing the Program:
(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

1- The economic reasons are the current shortage of qualified industrial engineers due to industrialization booming and the plan to reduce the dependency level on the foreign engineers. In addition, the foreseeable demand for industrial engineers due to economic growth and infrastructure development.

2- The Social/cultural reasons are to graduate engineers qualified for higher industrial studies (M.Sc., Ph.D., etc.) and to provide greater opportunity for Saudis to become industrial engineers and participate in the growth of the country.

3- Industrial Engineering Program in Al-Qunfudhah is planned to carry out technological development plans of the Kingdom.

This Industrial Engineering program considers as a part of the national policy development plan.

4. Total Credit Hours for Completing the Program: (252)

5. Professional Occupations/Jobs:

Industrial Engineer, Quality Engineer, Production Engineer, Manufacturing Engineer, Safety Engineer, Human Factors, Engineer, Teaching assistant and lecturer in Industrial Engineering.

6. Major Tracks/Pathways (if any)**:** There are no major tracks in the Industrial Engineering Program.

Major track/pathway	Credit hours (For each track)	Professional Occupations/Jobs (For each track)
1.		
2.		
3.		
4.		

7. Intermediate Exit Points/Awarded Degree (if any)**:**

Intermediate exit points/awarded degree	Credit hours
1. 2nd year - Level 6 (Diploma)	103
2.	
3.	

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

The Industrial Engineering program offers an inclusive quality education to graduate competent industrial engineers, who own theoretical and practical skills to practice industrial engineering and management with efficiency and effectiveness.

2. Program Goals:

1- Graduating efficient and qualified engineers with knowledge foundations and skills in the field of industrial engineering, to plan, design, implement, operate and maintain the various industrial projects.
2- Developing the students' critical thinking and analytical reasoning skills. Practicing engineering approaches to solve problems. Therefore, graduating industrial engineers who can compete in the job market locally and internationally.
3- Developing the students' planning, designing, implementing, and supervising skills.
4- Coping with the modern developments to conduct scientific and practical research and studies. Providing training and advising services in the field of industrial engineering to serve the society.
5- Exchanging expertise with the related educational and industrial institutions regionally and internationally.

3. Relationship between Program Mission and Goals and the Mission and Goals of the Institution/College.

1- The mission of the Industrial Engineering Program is consistent with the mission of the College of Engineering in Al-Qunfudah and the University, as the university aims at meeting the needs of the Saudi society through programs in education and scientific research.
2- Industrial Engineering Program makes a significant contribution to the mission of the university in the industrial engineering field.

4. Graduate Attributes:

The Industrial Engineering Program alumni will:

1- Be able to practice industrial engineering in its major areas.
2- Acquire solid foundation in mathematics, physical sciences and the required technical skills in their onward professional career and their further postgraduate studies.
3- Develop skills pertinent to industrial engineering problem definition, formulation, design, and analysis.
4- Equipped with sufficient knowledge and skills in the use of computer tools and can analyze experimental data and to apply it in the design of industrial engineering systems.
5- Be able to apply and practice the industrial engineering knowledge in a professional setting such as ethics and safety.
6- Be able to effectively communicate technical and professional information in written, oral, and graphical forms.
7- Develop teamwork and effective communications skills.
8- Be interested, motivated, and capable of pursuing continued life-long learning

5.Program learning Outcomes*	
Knowledge and Understanding	
K1	**Demonstrate** a sound and broad knowledge of concepts, principles, theories, and procedures related to industrial engineering.
K2	**Apply** gained fundamental theories, principles of physics and statistics, mathematics, as well as engineering specialization to the solution of complex industrial engineering problems.
Skills	
S1	**Identify, formulate,** and **solve** complex industrial engineering problems by applying principles of engineering and science.
S2	**Apply** industrial engineering design to produce solutions that meet specified needs with appropriate consideration of public health, safety, and welfare as well as global, cultural, societal, environmental, and economic factors.
S3	**Develop** and **conduct** appropriate experimentations, analyze, and interpret data, synthesize information, and utilize engineering judgement to provide valid conclusions.
S4	**Select**, and **apply** appropriate techniques, resources, modern engineering, and scientific tools, including packages, simulation, prediction, and modelling, pertaining to industrial engineering applications, with an understanding of the limitations.
S5	**Demonstrate** high levels of critical thinking and effective communication with a range of audiences via oral and written forms on complex engineering activities.
Values	
V1	**Adopt** ethical principles and commit to professional ethics, responsibilities and norms of engineering practice.
V2	**Demonstrate** knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
V3	**Recognize** the importance of and pursue lifelong learning in the broader context of innovation and technological developments.
V4	**Recognize** the impact of engineering solutions in a local and global economic, environmental, and societal context.

* Add a table for each track and exit Point (if any)

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	**13**	**32**	**12.8%**
	Elective	**3**	**6**	**2.4%**
College Requirements	Required	**25**	**88**	**34.9%**
	Elective	-	-	-
Program Requirements	Required	**30**	**114**	**45.6%**
	Elective	**3**	**12**	**4.8%**
Capstone Course/Project		**3**	**7**	**2.8%**
Field Experience/ Internship		**1**	**8**	**3.2%**
Others		-	-	-
Total		**78**	**252**	

* Add a table for each track (if any)

2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	ELCE1201	Intensive English Language A1	Required	-	4	Institution
	DS1101	Technology	Required	-	2	Institution
	COE1101	Calculus (1) for Engineering	Required	-	4	College
	CHM1106	Chemistry (1) for Engineering	Required	-	3	College
	IE1101	Physics (1) for Engineering	Required	-	4	College
Level 2	ELCE1202	Intensive English Language A2	Required	ELCE1201	4	Institution
	QR1101	The Holy Quran (1)	Required	-	2	Institution
	COE1102	Calculus (2) for Engineering	Required	COE1101	4	College
	CHM1107	Chemistry (2) for Engineering	Required	CHM1106	3	College
	IE1102	Physics (2) for Engineering	Required	IE1101	4	College
Level 3	ELCE1203	Intensive English Language A3	Required	ELCE1202	4	Institution
	ICC1201	Islamic Culture (1)	Required	-	2	Institution
	COE1103	Calculus (3) for Engineering	Required	COE1102	4	College
	COE1201	Introduction to Engineering	Required	-	3	College
	IE1103	Computer Programming for Engineering	Required	COE1102	4	College
Level 4	QR2102	The Holy Quran (2)	Required	QR1101	2	Institution
	COE2301	Statics	Required	COE1103	4	College
	COE2202	Engineering Drawing	Required	-	3	College
	IE2104	Physics (3) for Engineering	Required	IE1102	3	College
	IE2201	Engineering Analysis (1)	Required	COE1103	4	College
Level 5	ICC2202	Islamic Culture (2)	Required	ICC1201	2	Institution
	COE2105	Engineering Analysis (2)	Required	IE2201	4	College
	IE2203	Fundamentals of Electrical Engineering	Elective	IE1102	3	College
	IE2301	Dynamics	Required	COE2301	4	College
	IE2302	Materials Science	Required	CHM1107	3	Department
	IE2202	Introduction to Industrial Engineering	Required	-	2	Department
	ARS1601	Arabic Writing and Editing	Required	-	2	Institution

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 6	IE2401	Engineering Statistics and Probability	Required	COE1103	4	College
	COE2106	Engineering Numerical Methods	Required	IE2201	4	College
	IE2303	Engineering Measurements	Required	IE2203	4	Department
	IE2304	Thermal Engineering	Required	IE2301	4	Department
Level 7		Elective (1) (University)	Elective	-	2	Institution
	COE3205	Engineering Reports	Required	ELCE1203	2	College
	IE3501	Operations Research (1)	Required	IE2201	4	Department
	IE3601	Work Systems Measurement and Analysis	Required	IE2401	4	Department
	IE3402	Advanced Engineering Statistics	Required	IE2401	3	Department
	IE3701	Organizational and Human Resource Management	Required	IE2202	3	Department
Level 8	IE3203	Engineering Economy	Required	IE2401	3	College
	IE3502	Operations Research (2)	Required	IE3501	4	Department
	IE3204	Computer Applications in Industrial Engineering	Required	IE2201	3	Department
	IE3702	Production Planning and Inventory Control	Required	IE2401	4	Department
	IE3403	Design of Engineering Experiments	Required	IE3402	4	Department
Level 9	ICC3203	Islamic Culture (3)	Required	ICC2202	2	Institution
	IE3404	Industrial Quality Control	Required	IE3402	4	Department
	IE3602	Human Factors Engineering	Required	IE3403	4	Department
	IE3205	Industrial Cost Analysis	Required	IE3203	4	Department
	IE3801	Manufacturing Processes (1)	Required	IE2302	4	Department
Level 10		Elective (2) (University)	Elective	-	2	Institution
	IE4802	Manufacturing Processes (2)	Required	IE3801	4	Department
	IE4405	Reliability Engineering	Required	IE3404	4	Department
	IE4406	Six Sigma and Lean Manufacturing	Required	IE3404	4	Department
	IE4206	Industrial Systems Simulation	Required	IE3502	4	Department
Level 11	QR3103	The Holy Quran (3)	Required	QR2102	2	Institution
	IE4305	Maintenance Engineering	Required	IE4405	4	Department
	IE4207	Automation and Control	Required	IE2301	4	Department
	IE4703	Supply Chain Engineering and Logistics	Required	IE3702	4	Department
	IE4603	Industrial Safety Engineering	Required	IE3602	4	Department
Level 12	IE4900	Cooperative Training	Required	155 Credits and Department Approval	8	College
Level 13	QR4104	The Holy Quran (4)	Required	QR3103	2	Institution
	IE4901	Capstone Project (1)	Required	190 Credits and Department Approval	2	College
	IE4704	Engineering Ethics	Required	COE3205	2	College
	IE4803	Computer Aided Design and Manufacturing (CAD/CAM)	Required	IE4802	4	Department
	IE4208	Industrial Information Systems	Required	IE3702	4	Department
	IExxxx	Elective (1) (Major)	Elective	-	4	Department
		Elective (3) (University)	Elective	-	2	Institution

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 14	IE4902	Capstone Project (2)	Required	IE4901	2	College
	IE4705	Facilities Planning and Design	Required	IE4703	4	Department
	IE4706	Industrial Projects Management	Required	IE3701	4	Department
	IExxxx	Elective (2) (Major)	Elective	-	4	Department
Level 15	ICC4204	Islamic Culture (4)	Required	ICC3203	2	Institution
	IE4903	Capstone Project (3)	Required	IE4902	3	College
	IE4707	Strategic Planning	Required	IE4706	4	Department
	IE4503	Artificial Intelligence Applications in Industrial Engineering	Required	IE3502	4	Department
	IExxxx	Elective (3) (Major)	Elective	-	4	Department

* Include additional levels if needed
** Add a table for each track (if any)

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

https://uquadmin-my.sharepoint.com/:f:/g/personal/smsulaie_uqu_edu_sa/EsxKqyyReqZLjp4Iw8FW8b8BAr1FYoYcQsuaBlBkuFvo6w?e=fee1pK

4. Program learning Outcomes Mapping Matrix

Align the program earning outcomes with program courses, according to the following desired levels of performance (**I = Introduced P = Practiced M = Mastered)**

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding		Skills					Values			
	K1	K2	S1	S2	S3	S4	S5	V1	V2	V3	V4
IE1101	I	I	I	I	I			I			
IE1102	I	I	I	I	I				I		
IE1103	I	I	I	I	I	I					
IE2104	I	I	I	I					I		
IE2201	I	I	I	I		I			I		I
IE2203	I	I	I	I	I	I	I		I		I
IE2301		I		I	I	I			I		I
IE2302		I	I	I	I	I			I		I
IE2202	I	I	I	I			I		I		I
IE2401		I	I	I			I		I		I
IE2303		I	I	I	M	P	I		I		P
IE2304		I	I	M		M			I		I
IE3501	I	I	M	M	M	M			I		I
IE3601	I	I		M	P		I		I		I
IE3402	I	I		M			I		I		I
IE3701	I	I		M					I		I
IE3203		I	I		M	M	M		I		I
IE3502		M	M	M	M	M	M		I		I

Course code & No.	Program Learning Outcomes											
	Knowledge and understanding		Skills					Values				
	K1	K2	S1	S2	S3	S4	S5	V1	V2	V3	V4	
IE3204	I	I	I	I	M	M			I		I	
IE3702		I	I	I	I	I	I		I		I	
IE3403	I			I	M	I	I		I		I	
IE3404		I	I	I	I	I			I		I	
IE3602	I	I	I	M		M	I		I		I	
IE3205		I		I	I	I	P		P		I	
IE3801		I	I	M	I	M	P		P		I	
IE4802		M	I	M	M	P			P		I	
IE4405		M	I		I	P			P		I	
IE4406		I		M		M	P		P		I	
IE4206		I	I	M	M	P			P		I	
IE4305		I	I	M	M	P			P		I	
IE4207	I	I	I	M	M	M			P		I	
IE4703		I		M		I			I		I	
IE4603	I	I	I	M	I	I			I		I	
IE4704	I			I	I				I		I	
IE4803		M	I	M	M	M	M		I		P	
IE4208		M	P		M	I			P		I	
IE4705	I	I	I	I	I	I			I		I	
IE4707	I	I		M	I	M	I		I		I	
IE4503	I	I	I	M					I		I	

* Add a table for each track (if any)

5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

The program aims to achieve learning outcomes by adopting a set of mechanisms:

1- Determining appropriate teaching strategies to achieve learning outcomes at theprogram level and at the level of all program decisions.
2- Focusing on teaching strategies related to active learning strategies (Interactive lectures,Tutorials, Blackboard Activities, Class Discussion, Seminars, Brain Storming, Internships).
3- Establishing mechanisms to follow up on the faculty members' implementation of teaching strategies mentioned in the courses and report them periodically.
4- Developing a plan for classroom and extra-curricular activities at the level of each course in a way that contributes to achieving learning outcomes.
5- Reporting on what has been implemented of classroom and extra-curricular activities.
6- Developing appropriate improvement plans and follow up on the implementation of the taken decisions.

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning

outcomes in every domain of learning.

1- **Indirect**: Surveys, Focus groups from employers, advisory committee, and etc.
2- **Direct**:

Domain	Assessment Methods
Knowledge and understanding	- Quizzes - Midterm and final exams - Dialogue and discussion - Blackboard Activates - Online discussion forums - Research - Case studies
Skill	- Quizzes - Midterm and final exams - Dialogue and discussion - Blackboard Activates - Seminar Evaluation - Online discussion forums - Research - Case studies
Value	- Brainstorming - Research - Case studies - Observation sheet - Penal discussion

D. Student Admission and Support:

1. Student Admission Requirements

College of Engineering Council in Al-Qunfudhah shall determine the number of students who should be admitted in each department of the College in accordance with the Kingdom's comprehensive development plan in addition to the general conditions for admission to Umm Al-Qura University, which is mentioned in the list of studying and tests for the undergraduate.

2. Guidance and Orientation Programs for New Students

1- Psychological preparation for new students.
2- Providing psychological and therapeutic consultations through the Academic Advising committee at theprogram.
3- Holding seminars and workshops to prepare new faculty members for the academic and studentguidance process in the department.
4- Following up on the implementation of instructional hours by faculty members and check their compliance.
5- Working to solve any academic problem facing the student through his academic advisor.
6- Providing support for students Special Support (low achievers, disabled, gifted and talented).
7- Preparing a list of educational resources that help students to excel; special support to

gifted and talented.

8- Informing students about what is new in their field of specialization.
9- Communicating constantly between students and their academic advisor.
10- Working to unify social and human relations between students and their academic advisors through group meeting.
11- Encouraging students to participate in cultural competitions.
12- Educating students on the importance of community service.

3. Student Counseling Services

(academic, career, psychological and social)

1- Program offers career counseling to help students to determine their strengths, values, and interests to make the right choices regarding their career.
2- Forming committees for new students' reception and explaining the work method in the department and college.
3- Holding a meeting at the beginning of each chapter chaired by the Dean and participate in the Vice Deans and heads of departments and is clarified.
4- Students 'rights and duties and answers to all students' queries.
5- Each faculty member has academic guidance students.
6- Each faculty member shows on his office students' academic guidance and hours of academic guidance.
7- Every faculty member who submits a periodic report to the coordinator of academic guidance in the department includes:

a- Identify the students who have failed to do so.
b- Limiting outstanding students and addressing their mentors for moral encouragement.
c- Conducting periodic meetings with the department's advisors to follow up the work process in the appropriate manner and according to what was planned.
d- Making models to ensure the presence of the student for guidance and continuous communication with him.

4. Special Support

(low achievers, disabled, gifted and talented)

1- Preparing a file for each student to follow his academic career.
2- Holding workshops to prepare faculty members to deal with this group and consider their needs.
3- Identify students who are not studying at all and prepare a plan to help them and encourage them to improve their educational level.
4- Providing material and moral incentives for students who are excelling in study.
5- Encouraging students to be creative and rewarding creators.

E. Teaching and Administrative Staff

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	-	-	-	-	-	-
Associate Professors	Industrial Engineering, Mechanical Engineering		None	1	-	1
Assistant Professors			None			
Lecturers			None			
Teaching Assistants			None			
Technicians and Laboratory Assistants	Maintenance Clean Worker Administrative secretary	Maintenance Software Cleaning Administrative work Secretarial work	None	3	-	3
Administrative and Supportive Staff			None			
Others (specify)			None			

2. Professional Development

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

We do some orientation for new teaching staff such as:

- Welcomed the new staff members and introduced a power point presentation givingan overview about the organizational structure of the program including the activities and the services like Black Board, Academic gate being delivered to the faculty members
- Program handbook.
- Periodical meetings with heads of academic committees and course coordinators.

Workshops conducted by the deanship of development and quality assurance.

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

a. Improvement of skills in teaching and student assessment?

- The Quality Committee in coordination with the members of the department to explore the opinion of students in the quality of the courses and experiences gained and the opinion of the students of the final year in the quality of the program
- In case of improvement, the program coordinator, in cooperation with his / her

colleagues, will develop an improvement plan that includes the work to be done, who will carry out the improvements and the necessary time period,
- Determine the training needs of faculty members and technicians through questionnaires.
- Applying faculty members to training courses and workshops according to training needs.
- Deanship of e-learning in the provision of specialized courses in the field of teachingwith the development center
- Skills and Deanship of Quality and Academic Accreditation

b. Other professional development including knowledge of research?
- Encouraging faculty members to participate in training courses, workshops, conferences, and seminars through supporting deanships such as Deanship of Scientific Research
- Encouraging teachers to write reference books in the specialization courses.

F. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

- Each member writes his recommendations on the appropriateness of the course content to achieve goals that are its outputs in the course report at the end of each semester.
- The program coordinator gathers the recommendations and submits them to the department council to discuss them and give an opinion about them in a way that achieves the goals and outputs of the decision, and the department council takes the necessary measures regarding them.
- The Department Council submits its recommendations to the College Council to raise its needs of books and references to address the Deanship of Libraries to provide the necessary ones.
- Setting criteria for selecting scientific references.

Clarify the main references and supporting references for students

2. Facilities and Equipment

(Library, laboratories, medical facilities, classrooms, etc.).

Available Learning Resources, Facilities and Equipment at the Department	Capacity	Available in Numbers
Classrooms	30 students	4
Laboratories and workshops		8
Lab 1 **Automation and Computer Numerical Control (CNC)**	10 students	1
Lab 2 **Engineering Measurements Lab**	15 students	1
Lab 3 **Industrial Systems Analysis and Simulation Lab**	15 students	1

Lab 4 **Computer Integrated Manufacturing Lab**	15 students	1
Lab 5 **Manufacturing Techniques Lab**	15 students	1
Lab 6 **Thermal Lab**	15 students	1
Lab 7 **Electronics Lab**	15 students	1
Lab 8 **Fluid Mechanics and Hydraulics Lab**	15 students	1
Library and information resources		
1- Books and references		
1- College of Engineering at Alqunfudhah Library	Most of the required books and references are available	
2- King Abdullah University Library		
2- Digital resources and data bases		
Saudi Digital Library	Most of the required books and references are available	

3. Arrangements to Maintain a Healthy and Safe Environment (According to the nature of the program)

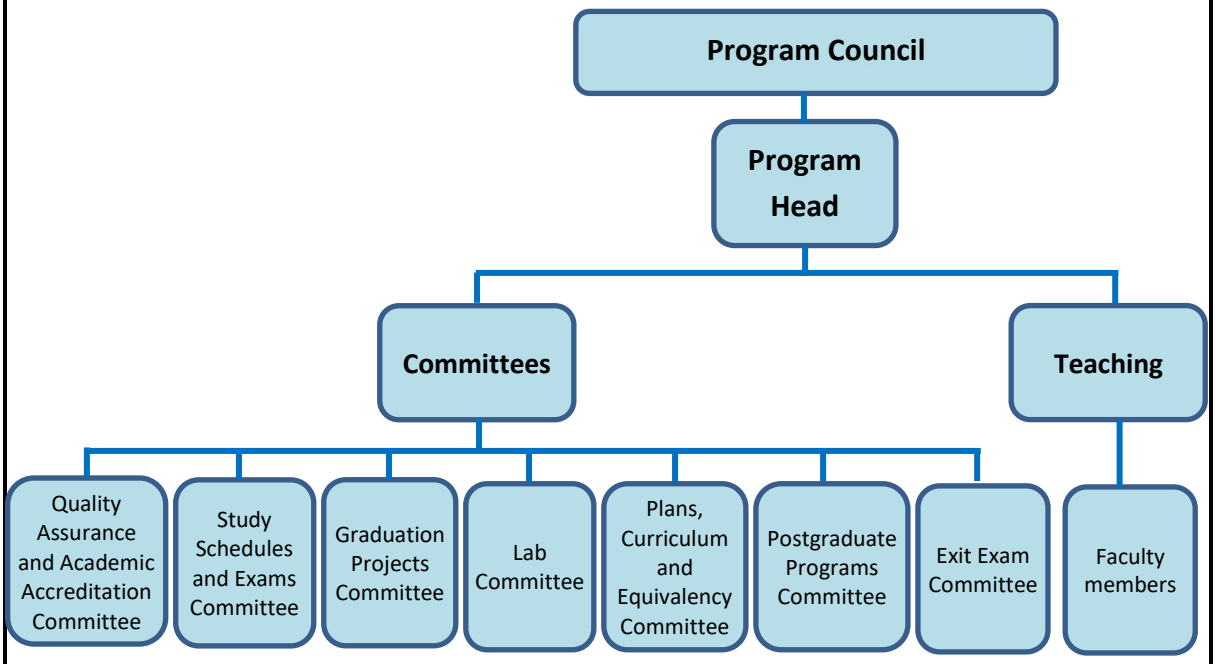
- Provide a fire extinguisher for every in the corridors of the college building.
- All the labs have clear safety procedures.
- There are brochures explain the instructions and rules.
- There are no any dangerous materials in the labs and classrooms.
- The college building is designed to exist good ventilation.
- There are signs explain the emergency exit and assembly points according the international criteria.

G. Program Management and Regulations

1. Program Management

1.1 Program Structure

(including boards, councils, units, committees, etc.)



1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)

- The alumni introduce their opinion and suggestion about the program through surveyand direct contact through alumni unit.
- The program has consultant council which take held twice every year for consultationand discussion of new trends and needs such as:

1- Achieving and consolidating the partnership between the program and the governmental and private sectors in the fields of education and training and providing an appropriate educational environment to activate the communication between the program and the labor market and society.
2- Work to develop the level of program graduates according to the needs of the labor market.
3- Suggesting the ways and mechanisms that give the program and its graduates a distinction.
4- Developing mechanisms that contribute to linking the program with its graduates to benefit from them.
5- Suggesting new sources and methods to support the program financially and morally.

Improving methods of linking scientific research with society and developing the consulting sector in a way that benefits the program and society.

2. Program Regulations

Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

https://drive.uqu.edu.sa/_/luc/files/%D9%84%D8%A7%D8%A6%D8%AD%D8%A9%20%D8%A7%D9%84%D8%AF%D8%B1%D8%A7%D8%B3%D8%A7%D8%AA%20%D9%88%D8%A7%D9%84%D8%A5%D8%AE%D8%AA%D8%A8%D8%A7%D8%B1%D8%A7%D8%AA[5125].pdf

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

https://uquadmin-my.sharepoint.com/:b:/g/personal/amalessa_uqu_edu_sa/EXkI3oc5xipDtTAp6uHpzMUBngCaOydVai5-7pWc3eNWDw

2. Program Quality Monitoring Procedures

Participation of faculty members in various academic committees,

- Existence of quality assurance and academic accreditation committee as one of the internal committees in the department.
- Formation of sub-committees from quality assurance and academic accreditation committee which concern of:
    1. Determination and measuring of program KPIs, then make the required analysis and comments and finally formation of recommendations which will be included in the department operation plan.
    2. Designing and implementation of the department annual report which clarifies the strength and weak points and the improvement priorities.
    3. Work on activating these recommendations of these committees through discussion within the department meetings and recommendations of these committees to the department meetings.
    4. Preparing the course report every semester. Improvements and additions to course Specification can be made based on the feedback from the course report in each semester.
    5. Preparing the program report annually, improvements and amendments can be made to the Courses and Program Specification based on the feedback from the program report annually.
    6. At the end of the five years, a self-study report for the program is prepared, and the program's mission, goals, learning outcomes of program to development are reviewed.
    7. Verify the quality and reliability of evaluation methods by analyzing the internal evaluator's report as well as the external evaluator's report at the level of each course, preparing an improvement plan in light of these results and following up on the implementation of the decisions taken.
    8. Conducting a review of the correction at two levels:
       First: Review and write a report on the accuracy of the correction and the calculation of grades for all answer sheets for all sections of the course.
       Second: Review and write a report on the method of correction and the accuracy of the grading distribution, on a sample of answer sheets for the final and quarterly exams and assignments for all the course sections.

- Discuss faculty members in the results of surveys of students about the program.
- Participation of faculty members in the preparation of a plan to improve the program.
- Discuss faculty members in the results of surveys of students about the program.
- Participation of faculty members in the preparation of a plan to improve the program.

3. Arrangements to Monitor Quality of Courses Taught by other Departments.

1- The courses Specifications that are taught through other scientific departments are accordance with the program Specification and taking correlation of these programs Specification with the mission and goals of the program.
2- The program management send its suggestions about the contents and learningoutcomes of courses taught by other Departments.
3- Program management is provided with Courses reports taught through other scientific departments. Improvements and additions to course Specification can be made based onfeedback from the course report in each semester and discusses the results and recommendations with the staff in charge
4- Overall improvement plan is prepared by considering the recommendations by staffmembers in their courses reports at the end of each term.

4. Arrangements Used to Ensure the Consistency between Main Campus and Branches (including male and female sections)

N/A

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

- The program applies the regulations governing the educational and research partnerships through deanship of community service and deanship of scientific research.
- The program has consultant council for consultation and discussion of new trends and needs.

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

- Program Learning Outcomes (PLOs) are measured periodically (each semester) by several ways like term assignments (Midterm Exams-Quizzes- Presentations, etc. …), Final Exams and Questionnaires by direct and indirect methods.
- The program has consultant council for consultation and discussion of new trends and needs.
- The department determines the target value for each learning outcome that is measured.
- Analyzing measurement results and identifying strengths and weaknesses.
- Preparing a plan to improve and develop learning outcomes.

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
leadership	students, graduates, alumni, faculty Staff, administrative staff, employers	Surveys	End of AcademicYear
Effectiveness of teaching	students, graduates, alumni, program leaders,	Surveys. visits	Mid and End of Academic Year
assessment	Students, graduates, faculty Staff, program leaders, independent reviewers,	Surveys, interviews, visits, independent reviewers	End of Semester
learning resources	Students, graduates, faculty Staff.	Surveys	End of Semester

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify)
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

8. Program KPIs*

The period to achieve the target (.....) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-01	Percentage of achieved indicators of the program operational plan objectives.	80%	The percentage of performance indicators for the program's operational plan.	The end of the school year
2	KPI-02	Students' Evaluation of quality of learning experience in the program	3-4	Average overall estimate for final year students of the quality of learning experiences in the program	end of term
3	KPI-03	Students' evaluation of the quality of the courses.	3-4	Average student overall grade of course quality	end of term
4	KPI-	Completion rate	40%	The minimum	The end of the

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
	04			percentage of undergraduate students who completed the program.	program completion period
5	KPI-05	First-year students retention rate	50%	The percentage of first year students in the program who continue in the program for the following year to the total number of first year students in the same year.	End of the first year of the program
6	KPI-06	Students' performance in the professional and/or national examinations	N-A	The percentage of students or graduates who have successfully passed professional, national, or average intermediate exams.	The end of the program completion period
7	KPI-07	Graduates' employability and enrolment in postgraduate programs	50%	The percentage of graduates of the program who (were employed, enrolled in postgraduate studies, during the first year of their graduation to the total number of graduates in the same year),	The first year after the completion of the program
8	KPI-08	Average number of students in the class	30	Average number of students in a class (in each meeting / teaching activity, lecture, small group, panel discussions)	Beginning of each semester
9	KPI-	Employers' evaluation	2-3	Average overall	every year

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
	09	of the program graduate's proficiency		estimate by employers of program graduate competence on a five-level scale in an annual survey	
10	KPI-10	Students' satisfaction with the offered services	2-3	Average estimate of student satisfaction with the various services provided by the program	end of term
11	KPI-11	Ratio of students to teaching staff	30:1	Total number of students to the total number of full-time faculty	end of term
12	KPI-12	Percentage of teaching staff distribution	50%	Percentage distribution of teaching staff in terms of: (gender, grade, branch or division)	end of term
13	KPI-13	Proportion of teaching staff leaving the program	9%	The ratio of faculty members who leave the program annually for reasons other than reaching retirement age to the total number of faculty members	The end of the academic year
14	KPI-14	Percentage of publications of faculty members	50%	Academic publishing for full-timefaculty	The end of the academic year
15	KPI-15	Satisfaction of beneficiaries with the learning resources	3-4	Beneficiaries' satisfaction with learning resources	end of term

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	
Reference No.	

Date	