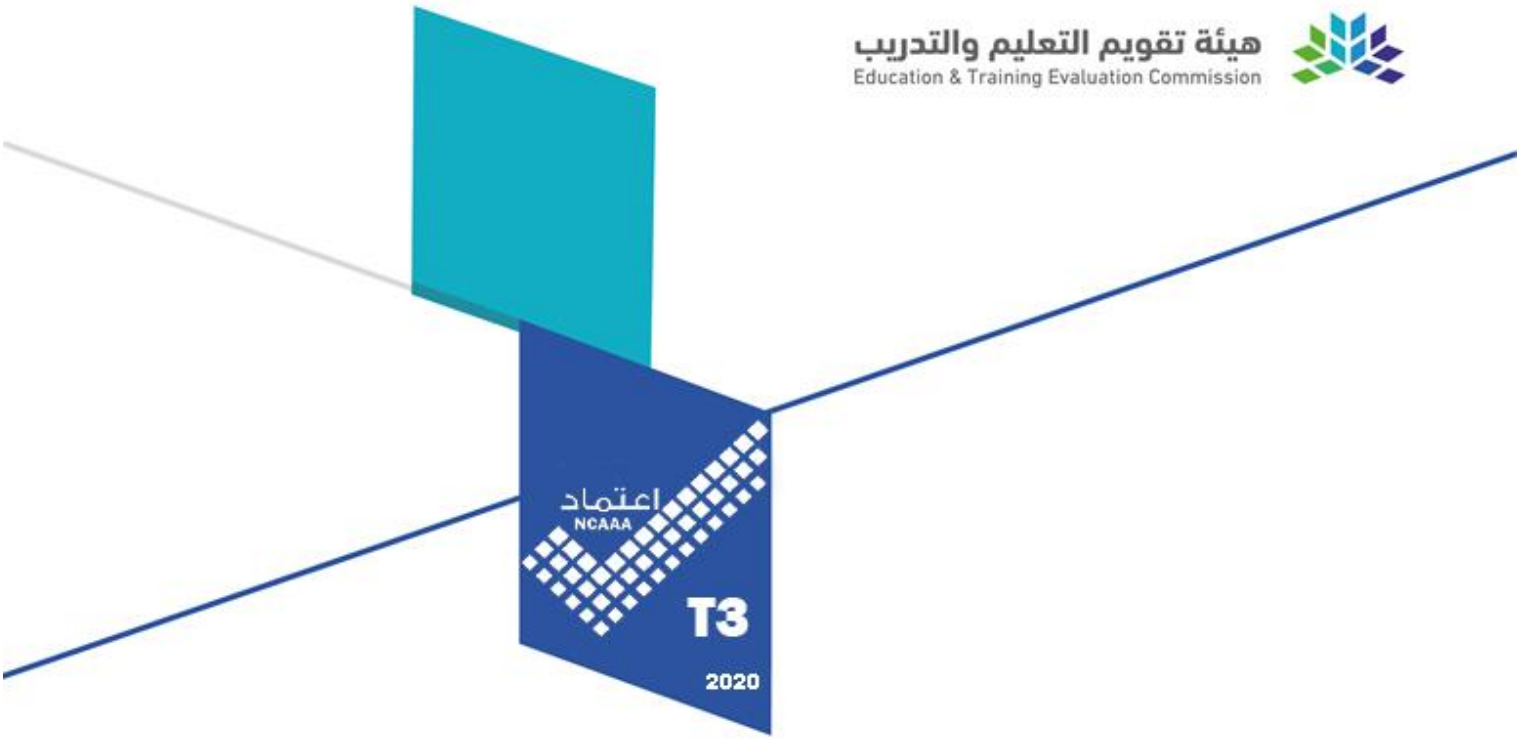
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Program Specification

Program Name: Bachelor's degree of mechanical engineering
Qualification Level :6
Department: Mechanical engineering
College: Faculty of engineering
Institution: University of Tabuk

Content

A. Program Identification and General Information

1. Program Main Location:

Campus

2. Branches Offering the Program:

NA

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

1- To prepare engineers for meaningful professional employment in the Mechanical Engineering sector of industry.
2- To compensate the shortage in Mechanical Engineers in the Kingdom of Saudi Arabia.
3- To motivate practice engineering
4- To recognize nationally and internationally as highly competent engineering graduates
5- To carry out technological development plans of the Kingdom.
6- To aware of the financial, moral, legal, economic, environmental and cultural constraints in which they operate.
8- As a part of the national policy development plan.

4. Total Credit Hours for Completing the Program: (134 credit hours + Foundation year (33 credit hours))

5. Professional Occupations/Jobs:

Mechanical Engineer - 214401
Aerospace Engineer - 214404
Medical Devices Engineer – 215208
Maintenance Manager -132104
Marine Engineer – 214405
Water Desalination Engineer – 214504

6. Major Tracks/Pathways (if any)**:**

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.	
2.	
3.	

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

The mission of the Department of Mechanical Engineering which stems from the mission of the Faculty of Engineering of Tabuk University is to provide high quality education in mechanical engineering to be professionally equipped engineers in the fields of Energy and Thermo-Fluid Engineering, Mechanical Systems and Design, Engineering Materials and Manufacturing, and Mechatronics and Controls, and promotes excellence, ethics and welfare of society.

To further clarify the mission of the ME program, the following mission goals have been derived:

1. ***High quality education:*** a curriculum of instruction to produce well-educated engineers;
2. ***Professionalism:*** graduates engaged in professional development and lifelong learning to discover new knowledge, technology, and applications; and
3. ***Community Service:*** the transfer of knowledge to the profession and society in both the public and private sectors

2. Program Goals:

The objectives of the Mechanical Engineering Department are producing graduates who are:

1. To deliver distinguished academic education that meets the needs of the labor market.
2. Providing creative research to contribute to building the knowledge economy.
3. Effective contribution to sustainable development and community service.
4. Offer a stimulating and attractive educational environment.
5. Develop an effective administrative and organizational environment in the ME department.

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

Keywords	University of Tabuk	Faculty of Engineering	BSc in Mechanical Engineering Program
Needs of society Excellent education	To offer a distinguished university education that meets the needs of society and the job market through an attractive educational,	To graduate qualified engineers in accordance with the International Academic Standards and prepare them to meet the changing needs of society. These graduates will be able to compete locally and internationally. The	The mission of the Department of Mechanical Engineering which stems from the mission of the Faculty of Engineering of Tabuk University is to provide high quality education in mechanical engineering to be professionally equipped

Research	administrative, and technical environment that supports **research** and innovation.	Faculty of Engineering is committed to providing **excellent education** and pursuing relevant scientific **research** and partnership with industry and governmental societies.	engineers in the fields of Energy and Thermo-Fluid Engineering, Mechanical Systems and Design, Engineering Materials and Manufacturing, and Mechatronics and Controls, and promotes **excellence**, ethics and **welfare of society**.

4. Graduate Attributes:

5.Program learning Outcomes*

Knowledge and Understanding	
K1	An ability to demonstrate knowledge of concepts of Mechanical engineering and science
Skills	
S1	An ability to identify, formulate, and solve complex engineering problems by applying principles of Mechanical engineering, science, and mathematics
S2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
S3	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
S4	An ability to communicate effectively with a range of audiences
S...	
Values	
V1	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
V2	An ability to function effectively on a team, whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
V3	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
V4	
V...	

* 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	**9**	**20**	**11.9**
	Elective	-	-	-

College Requirements	Required	**22**	**62**	**37.08**
	Elective	-	-	-
Program Requirements	Required	**26**	**73**	**43.71**
	Elective	**4**	**12**	**7.2**
Capstone Course/Project				
Field Experience/ Internship				
Others				
Total		**61**	**167**	**100**

* 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	ELS 001	English I	R		5	U
	MATH 100	Math I	R		3	C
	COMM	Communication Skills	R		2	U
	CSC 001	Computer Skills and Its applications	R		3	U
	PHYS 101	General Physics	R		3	C
	ELS 001	English I	R		5	U
Level 2	ELS 002	English II	R	ELS 001	5	C
	MATH 101	MATH II	R	MATH 100	3	C
	LTS 001	Learning, Thinking, and Research	R		3	U
	CHEM 101	General Chemistry	R		3	C
	BIO 101	General Biology	R		3	C
	ELS 002	English II	R	ELS 001	5	C
Level 3	PHYS 205	Physics	R	PHYS101	4	C
	MATH 284	MATH III	R	MATH 101	3	C
	ENG 201	Engineering Drawing and Graphics	R		3	C
	ENG 203	Engineering Mechanics I	R	PHYS 101	2	C
	ENG 205	Introduction to engineering design 1	R	ELS002-MATH101	3	C
	PHYS281	General Physics lab	R	PHYS101	1	C
	ISLS101	ISLAMIC Culture I	R		2	U
Level 4	ENG 213	Introduction to engineering design 2	R	ENG 205	2	C
	MATH 383	Differential Equations	R	MATH284	3	C
	ENG 204	Engineering mechanics II	R	ENG203	2	C
	ISLA201	Islamic Culture I	R	ISLS 101	2	U
	ENG 202	Production technology and Workshops	R	ENG 201	3	C
	MATH241	Linear Algebra	R	MATH 284	3	C
	CHEM203	General Chemistry Lab	R	CHEM 101	1	U
Level 5	ME 211	Mechanical Drawing and Graphics	R	ENG 201	3	D

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	ME 201	Engineering Materials	R	CHEM 101	3	D
	ME 221	Thermodynamics I	R	MATH 284-PHYS 205	3	D
	ME 243	Electrical Engineering Fundamentals	R	PHYS 205 - MATH 284	3	D
	ISLS301	Islamic Culture III	R	ISLS 201	2	U
	MATH 325	Statistics & Probabilities	R	MATH 284	3	C
Level 6	ME 212	Mechanics of Machines	R	ENG 204-ME 211	3	D
	ENG214	Engineering Economy	R	ENG 213	2	C
	ARB101	Language Skills	R		2	U
	ME 202	Manufacturing Processes	R	ME 201-ENG 202	3	D
	ME 213	Mechanics of Materials	R	ENG 203	3	D
	ME 231	Fluid Mechanics I	R	ENG 204-MATH 383	3	D
Level 7	ARB 201	Arabic Language II	R	ARB 101	2	U
	ME 323	Thermodynamics II	R	ME 221	3	D
	ME 314	Mechanical Vibrations	R	ME 212-MATH 383	3	D
	ME 315	Mechanical Design 1	R	ME 212-ME 213	3	D
	ME 341	Numerical Methods	R	MATH 383-MATH 241	3	D
	ME 322	Heat Transfer	R	ME 211-ME 231	3	D
Level 8	ME 342	Computer-aided Design	R	ME 341-ME341	3	D
	ME 332	Turbomachinery 1	R	ME 231	3	D
	ME 316	Automatic Control and Systems	R	ME 314-ME 341	3	D
	ISLS 401	Islamic Culture IV	R	ISLS 301	2	U
	ME 317	Mechanical Design 2	R	ME 315	3	D
	ME 333	Instrumentation and Measurements	R	ME 243-ME 314	3	D
	ME 495	Summer Training II	R	ME Approval	2	D
Level 9	ME 424	Refrigeration and Air Conditioning	R	ME 323-ME 333	3	D
	ME 444	Mechatronics I	R	ME 243-ME 316	3	D
	ME 434	Basic Hydraulic and Pneumatic Systems	R	ME 332- ME 333	3	D
	ME 4 XX	Elective Course	E	ME XXX	3	D
	ME 4XX	Elective Course	E	ME XXX	3	D
	ME 493	Graduation Project I	R	ME317- ME 392	2	D
	ME 424	Refrigeration and Air Conditioning	R	ME 323-ME 333	3	D
Level 10	ME 425	Power and Desalination Plants	R	ME 323- ME 444	3	D

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	ENG 215	Engineering Management	R	ENG 214- MATH 325	2	C
	ME 4 XX	Elective Course	E	ME XXX	3	D
	ME 4 XX	Elective Course	E	ME XXX	3	D
	ME 494	Graduation Project II	R	ME 393	3	D
	ME 425	Power and Desalination Plants	R	ME 323- ME 444	3	D

* 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://drive.google.com/drive/folders/1GB9eIv0PfaTs-3nIjzIvb2ACPKsETdCM?usp=drive_link

4. Program learning Outcomes Mapping Matrix

Align the program learning 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	K3	---	S1	S2	S3	S4	V1	V2	V3	V4
MATH100	I				I							
ELS001								I				
LTS001									I	I		
BIO101	I				I							
CHEM101	I				I							
CSC001	I				I							
COMM001								I				
ELS002								I				
MATH101	I				I							
PHYS101	I				I							
ISLS101									I			
MATH284	I				I							
PHYS205	I				I							
PHYS281							I					
CHEM203							I					
MATH241	P				P							
MATH383	P				P							
ISLS201									I			

Course code & No.	Program Learning Outcomes											
	Knowledge and understanding				Skills				Values			
	K1	K2	K3	---	S1	S2	S3	S4	V1	V2	V3	V4
ARB101								P				
ISLS301									P			
ARB201								M				
ENG201	I				I							
ENG203					I							
ENG205	I				I			I		I		
ENG202	I				I		I					
ENG204					I							
ENG213	I				I			I	I	I	I	
ME201	I				I		I					
ME211	I				I							
ME221	I				I		I					
ME243	I				I		I					
ENG214	I				I							
ME202	I				I							
ME212					I		I					
ME213	I				I		I					
ME231	I				I		I					
ME314	P				P		P					
ME315	P				P	P			P			
ME322	P				P	P	P					
ME323	P				P		P					
ME341	P				P							
ME316	P				P							
ME317	P				P	P			P			
ME332	P				P	P	P					
ME333	P				P							
ME342	P				P	P						
ME495	P				P			P	P	P	P	
ME424	M				M	M	M					
ME434	M				M	M						
ME444	M				M							
ME493	M				M	M		M	M	M	M	
ENG215	I				I				I			
ME425	M				M							
ME494	M				M	M	M	M	M	M	M	
Electives												
ME445	M				M	M						
ME451	M				M							
ME452	M				M	M						
ME453	M				M	M	M					

Course code & No.	Program Learning Outcomes											
	Knowledge and understanding				Skills				Values			
	K1	K2	K3	---	S1	S2	S3	S4	V1	V2	V3	V4
ME454	M				M	M						
ME456	M				M							
ME457	M				M	M	M					
ME458	M				M							
ME459	M				M							
ME461	M				M							
ME463	M				M							
ME469	M				M	M						
ME472	M				M							
ME475	M				M							
ME476	M				M							
ME478	M				M							
ME455	M				M							
ME462	M				M							
ME464	M				M							
ME465	M				M							
ME466	M				M							
ME467	M				M							
ME468	M				M							
ME471	M				M							
ME473	M				M							
ME474	M				M							
ME477	M				M							
ME479	M				M							
ME481	M				M							

* 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.

Program Learning outcomes and the teaching and learning strategies used to achieve them.

Teaching and learning strategies play a crucial role in achieving program learning outcomes in a Mechanical Engineering curriculum. The following strategies, including curricular and extra-curricular activities, are implemented to ensure comprehensive learning:

Lectures:

- Traditional lectures provide foundational knowledge in core subjects such as thermodynamics, fluid mechanics, and materials science.

- Guest lectures from industry experts enhance practical understanding and real-world application.

Problem-Based Learning (PBL):

- PBL sessions encourage students to solve real-world engineering problems collaboratively.
- Case studies and simulations challenge students to apply theoretical concepts to practical situations.

Project-Based Learning (PjBL):

- Long-term projects, such as designing a mechanical system or conducting experiments, foster teamwork, critical thinking, and problem-solving skills.
- Capstone projects allow students to integrate knowledge from various courses to address complex engineering challenges.

Experimental based learning

- Hands-on laboratory experiments reinforce theoretical concepts in subjects like fluid mechanics, heat transfer, and control systems.
- Lab sessions enhance practical skills, data analysis, and experimental techniques.

Program Learning outcomes and the teaching and learning strategies used to achieve them.

PLOs		Teaching& Learning Strategies
Knowledge:		
K1	An ability to demonstrate knowledge of concepts of Mechanical engineering and science	Lecture
Skills:		
S1	An ability to identify, formulate, and solve complex engineering problems by applying principles of Mechanical engineering, science, and mathematics	Lecture Problem based learning Project based learning
S2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Problem based learning Project based learning
S3	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions	Experimental based learning
S4	An ability to communicate effectively with a range of audiences.	Project based learning
Values:		
V1	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Project based learning
V2	An ability to recognize ethical and professional responsibilities in engineering situations and make	

	informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	
V3	An ability to function effectively on a team, whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	
V4		

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.

Program Learning outcomes and the assessment methods used to achieve them

Certainly, incorporating a variety of assessment methods is crucial for a comprehensive evaluation of program learning outcomes in the Mechanical Engineering curriculum:

Assessment Methods for Program Learning Outcomes:

Class Works:

- Quizzes, homework assignments, and in-class activities assess continuous understanding of theoretical concepts.

Examinations:

- Midterm and final exams evaluate students' knowledge retention and application of core principles.

Projects:

- Mini projects gauge the ability to apply engineering principles in solving real-world problems.
- Comprehensive projects test skills in planning, execution, and presentation.

Laboratory Reports:

- Lab reports assess hands-on skills, data analysis, and understanding of experimental procedures.

Capstone Projects:

- Culminating projects at the end of the program evaluate the integration of knowledge across disciplines and application in a complex project.

Peer Assessments:

- Collaborative projects can include peer evaluations to assess teamwork and interpersonal skills.

Industry Feedback:

- Gathering feedback from industry professionals on student projects or presentations provides an external perspective on readiness for the workforce.

Surveys and Interviews:

- Direct feedback from students through surveys and exit interviews can reveal their perception of the program's effectiveness.

Alumni Tracking:

- Follow-up with alumni to track their professional success and gather insights on the program's impact on their careers.

By employing a mix of direct and indirect assessment methods, the program ensures a thorough and well-rounded evaluation of students' achievement of program learning

outcomes throughout their academic journey. Regular reviews and adjustments to assessment strategies contribute to continuous improvement in the curriculum.

Program Learning outcomes and the assessment methods used to assess them

PLOs		Assessment Methods (Direct and Indirect)
Knowledge:		
K1	An ability to demonstrate knowledge of concepts of Mechanical engineering and science	Classwork Midterm exam Final Exam
Skills:		
S1	An ability to identify, formulate, and solve complex engineering problems by applying principles of Mechanical engineering, science, and mathematics	Classwork Midterm exam Final Exam
S2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Final Exam Mini Project
S3	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions	Lab report and/or exam
S4	An ability to communicate effectively with a range of audiences.	Mini Project
Values:		
V1	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Mini Project Project
V2	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	
V3	An ability to function effectively on a team, whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	

D. Student Admission and Support:

1. Student Admission Requirements

Academic Qualifications:

- Prospective students must hold a high school diploma or an equivalent qualification with a strong emphasis on mathematics and physical sciences.

GPA (Grade Point Average):

- A minimum GPA requirement, typically set by the university, to ensure academic readiness for the demands of the mechanical engineering curriculum.

Mathematics Proficiency:

- Demonstration of proficiency in mathematics, often through standardized tests or specific mathematics courses.

Science Background:

- Successful completion of high school courses in physics and chemistry, highlighting a foundational understanding of physical sciences.

English Language Proficiency:

- For international students or in regions where English is not the primary language, proof of English language proficiency through standardized tests like TOEFL or IELTS.

Letters of Recommendation:

- Submission of letters of recommendation from teachers or professionals who can vouch for the student's academic abilities and potential in engineering.

Statement of Purpose:

- A personal statement outlining the student's motivation, goals, and reasons for choosing mechanical engineering as a field of study.

Entrance Examinations:

- Some institutions may require students to take standardized entrance exams, such as the SAT or ACT, to assess their aptitude for higher education.

Interviews:

- In some cases, admission interviews may be conducted to assess the applicant's passion for engineering and their understanding of the field.

Extracurricular Activities:

- Consideration of involvement in extracurricular activities, especially those related to science, technology, engineering, or mathematics (STEM).

Admission requirements may vary among institutions, and some factors may be weighted differently. A holistic evaluation process ensures that admitted students not only meet academic standards but also possess the qualities and motivation necessary for success in the field of mechanical engineering.

Admissions Guide at the University of Tabuk
https://www.ut.edu.sa/ar/Deanship/dar/Documents/DG451.pdf

2. Guidance and Orientation Programs for New Students

Program-Specific Orientation:

- A tailored orientation program designed specifically for incoming mechanical engineering students, providing an overview of the program's structure, curriculum, and academic expectations.

Introduction to Faculty and Staff:

- Opportunities for new students to meet and interact with faculty members, academic advisors, and key staff within the mechanical engineering department, fostering a sense of community.

Mentorship Programs:

- Implementation of mentorship initiatives pairing new students with more experienced peers or faculty mentors to facilitate a smooth transition into the program and offer guidance on academic and extracurricular aspects.

Career Counseling:

- Early exposure to career counseling services tailored to the mechanical engineering field, helping students understand potential career paths, industry trends, and opportunities for internships or co-op programs.

Laboratory Familiarization:

- Specialized sessions to familiarize students with the laboratories and equipment specific to mechanical engineering, ensuring they are comfortable and proficient in using the tools essential for their coursework and projects.

Industry Connections and Guest Lectures:

- Arrangement of guest lectures by professionals from the mechanical engineering industry, providing insights into real-world applications, current trends, and the skills required for success in the field.

Study and Time Management Workshops:

- Workshops focused on study techniques, time management, and effective learning strategies, addressing the unique challenges of a rigorous mechanical engineering curriculum.

Student Organizations and Clubs:

- Information about and encouragement to join relevant student organizations and clubs related to mechanical engineering, offering opportunities for networking, collaboration, and participation in engineering competitions.

Introduction to Research Opportunities:

- Guidance on engaging in research within the mechanical engineering department, highlighting available research opportunities, ongoing projects, and the process for involvement.

Accessibility Services:

- Information on accessibility services and resources available to students with specific needs, ensuring an inclusive learning environment for everyone.

These program-specific initiatives enhance the overall orientation experience for mechanical engineering students, addressing their unique needs and fostering a supportive and inclusive academic community within the department.

3. Student Counseling Services
(academic, career, psychological and social)

Academic Counseling:

- Specialized academic counseling services tailored to the mechanical engineering curriculum, including guidance on course selection, study strategies, and academic performance improvement.

Professional Development Advising:

- Dedicated advising for professional development, offering insights into career paths, internship opportunities, resume building, and strategies for success in the mechanical engineering industry.

Industry Networking Support:

- Assistance in developing networking skills specific to the mechanical engineering field, including guidance on engaging with professionals, attending industry events, and building a strong professional network.

Research and Project Guidance:

- Counseling services focusing on research and project work, providing guidance on initiating and participating in research projects, collaboration opportunities, and mentorship for independent research endeavors.

Internship and Co-op Placement Assistance:

- Support for securing internships and co-op placements, including assistance with application processes, interview preparation, and guidance on maximizing the learning experience during practical training.

Psychological and Stress management Support:

- Specialized counseling services addressing the unique stressors and challenges associated with a demanding mechanical engineering program, providing coping strategies and mental health resources.

Peer mentoring Programs:

- Implementation of peer mentoring initiatives where experienced students in the program provide guidance and support to their peers, creating a sense of community and facilitating the sharing of experiences.

Work-Life Balance Counseling:

- Counseling on maintaining a healthy work-life balance, recognizing the demands of the program, and providing strategies for managing stress while maintaining overall well-being.

Social Integration Support:

- Programs and counseling services aimed at fostering social integration within the mechanical engineering student community, including events, workshops, and initiatives to build a sense of belonging.

Feedback Mechanisms:

- Establishment of mechanisms for students to provide feedback on counseling services, ensuring continuous improvement and responsiveness to the evolving needs of the student population.

These program-specific counseling services go beyond the institutional level to address the unique academic, professional, psychological, and social needs of mechanical engineering students, contributing to their holistic development and success.

4. Special Support
(low achievers, disabled, gifted and talented)

Tailored Academic Support for Low Achievers:

- Individualized academic support programs designed to assist low-achieving students, including additional tutoring, personalized study plans, and targeted interventions to address specific challenges.

Accessibility Services for Disabled Students:

- Specialized support services and accommodations for students with disabilities, ensuring that the learning environment is accessible and inclusive. This may include assistive technologies, adapted learning materials, and accessible facilities.

Enrichment Programs for Gifted and Talented Students:

- Customized enrichment programs aimed at challenging and stimulating gifted and talented students. These may include advanced coursework, research opportunities, and participation in specialized projects.

Mentorship Programs for Skill Enhancement:

- Mentorship initiatives connecting low achievers, disabled students, and gifted individuals with experienced mentors within the mechanical engineering field. Mentors provide guidance, motivation, and support for skill enhancement.

Flexible Learning Arrangements:

- Flexible learning options for students facing unique challenges, such as those with disabilities or other special needs. This may involve adjusted schedules, alternative assessment methods, or remote learning options.

Specialized Counseling for Emotional and Psychological Well-being:

- Counseling services tailored to the emotional and psychological needs of all students, with specific attention to the challenges faced by low achievers, disabled students, and gifted individuals.

Resource Centers and Labs:

- Dedicated resource centers and labs equipped with tools, technologies, and resources to support the learning needs of all students, ensuring that everyone has access to the necessary facilities for academic success.

Regular Progress Monitoring:

- Continuous monitoring of academic progress and well-being for all students, with extra attention to those requiring special support. This includes regular check-ins, progress reviews, and early intervention strategies.

Parental Involvement Programs:

- Involvement of parents or guardians in the support process, particularly for students with unique needs. Regular communication channels and informational sessions to keep parents informed and engaged in their child's educational journey.

Advocacy and Awareness Campaigns:

- Initiatives to raise awareness about the importance of diversity and inclusion within the mechanical engineering program. Advocacy campaigns aim to foster understanding, empathy, and a supportive community for all students.

These special support initiatives aim to create an inclusive learning environment that caters to the diverse needs of students, ensuring that everyone has the opportunity to thrive in the mechanical engineering program.

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	Mechanical engineering	Mechanics of materials Manufacturing and materials engineering Thermo-fluid Applied mechanics		6		6
Assistant Professors	Mechanical engineering	Applied mechanics Thermo-fluid		5		5
Lecturers				-		-
Teaching Assistants	Mechanical engineering			5		5
Technicians and Laboratory Assistants	Mechanical engineering			6		6
Administrative and Supportive Staff	Mechanical engineering			2		2

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Others (specify)						

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

1- The new faculty is given an orientation course and provided with the handbooks.
2- A new faculty will be in contact with the course coordinator
3- Coordinator will help new faculty to assign the course time schedule, text book, writing exam rules, assessment procedure, ... etc
4- New faculty has to recognize and understand the department program

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.)

The development and quality unit of the university of Tabuk organizes and conducts activities aimed at enhancing the academic development of the faculty members. Some of these activities are,

- Workshops
- Seminar

Faculty staff are asked to attend training courses, conferences and workshops to improve their teaching skills
All teaching facilities (Data show, Lab-top, ... etc) are provided and updated continuously
Ensuring good communication with other staff in other high graded institution
Taking into consideration the department and students teaching feedback comments
Faculty staff are asked to attend training courses, conferences and workshops to improve their research skills
Faculty staff are encouraged to participate in faculty supported & industry related research projects
Faculty staff have access to highly specialized research database (Journals, Periodicals, Confs. etc)
Faculty staff are encouraged to have a joint research work with others in another institution

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.)

Textbooks:

Reference materials:

- Additional supportive references covering advanced topics in dynamics and mechanics.
- Specialized texts on fluid mechanics, thermodynamics, and heat transfer relevant to the program.

Electronic materials:

- Access to electronic resources such as e-books, online journals, and interactive learning modules.
- Subscription to relevant engineering databases for research purposes.

Other Learning materials:

- Lecture notes and presentations provided by faculty for each course.
- Supplementary materials, including case studies, whitepapers, and industry reports.
- Access to software tools and simulations for practical application of theoretical concepts.

Laboratory manuals:

- Comprehensive manuals for laboratory exercises, ensuring students have clear instructions for hands-on experiments and projects.

Online Platforms:

- Utilization of web-based resources for collaborative learning, discussion forums, and online quizzes.
- Integration of e-learning platforms for asynchronous learning and access to recorded lectures.

Multimedia Resources:

- Integration of multimedia resources, including video lectures, animations, and virtual labs.
- Audiovisual materials to enhance understanding of complex engineering concepts.

Industry-specific Software:

- Access to industry-standard engineering software for simulations and design projects.
- Training materials for software tools commonly used in the field.

Research Journals:

- Subscriptions to relevant engineering journals for staying updated on the latest research and industry trends.
- Guidance on accessing and critically evaluating scholarly articles.

Collaborative Tools:

- Use of collaborative platforms for group projects, fostering teamwork and communication skills.
- Virtual meeting tools for remote collaboration on research projects and coursework.

These learning resources aim to provide a comprehensive and up-to-date foundation for students in the Mechanical Engineering Program, facilitating both theoretical understanding and practical application of engineering principles.

2. Facilities and Equipment

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

Library:

- The program has access to a well-equipped library with an extensive collection of textbooks, reference materials, and research journals related to mechanical engineering.
- Dedicated study spaces within the library to facilitate individual and group research.

Laboratories:

- Mechanics Laboratory: Equipped with apparatus for experiments related to statics, dynamics, and materials testing.
- Fluid mechanics Laboratory: Featuring state-of-the-art equipment for studying fluid flow phenomena, including flow rate measurements and hydraulic experiments.
- Thermodynamics Laboratory: Furnished with apparatus for investigating heat transfer, thermodynamic cycles, and energy conversion processes.
- Instrumentation and measurement Laboratory: Providing hands-on experience with sensors, transducers, and data acquisition systems.
- mechatronics Laboratory: Supporting projects involving the integration of mechanical, electrical, and computer systems.

Classrooms:

- Well-designed and technologically equipped classrooms to facilitate lectures, discussions, and presentations.
- Audiovisual aids for enhanced learning experiences, including projectors and smart boards.

Computer Labs:

- Dedicated computer labs with industry-standard software for engineering design, simulation, and analysis.
- High-performance workstations to support resource-intensive applications.

Workshop:

- A fully equipped workshop for practical training in basic machining, fabrication, and assembly.
- Facilities for hands-on experience in manufacturing processes and machine tool operations.

Project Rooms:

- Specialized rooms designated for collaborative project work, providing students with a conducive environment for teamwork and innovation.

Seminar Halls:

- Facilities for organizing seminars, workshops, and guest lectures to expose students to industry insights and advancements.

Research Facilities:

- Access to research facilities for faculty and student-led research initiatives.
- Facilities for conducting experiments, simulations, and prototypes for innovative projects.

Safety Measures:

- Implementation of safety protocols and equipment in laboratories and workshops to ensure the well-being of students and faculty.

Online Learning Platforms:

- Integration of virtual classrooms and online resources to support blended learning approaches.
- Access to e-learning platforms for remote engagement and collaboration.

These facilities and equipment are designed to create a dynamic learning environment that aligns with the diverse needs of the Mechanical Engineering Program, fostering both theoretical understanding and practical skills development.

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

Procedures Ensuring a Healthy and Safe Learning Environment in the Mechanical Engineering Program:

Safety Training:

- Mandatory safety training sessions for all students before engaging in laboratory, workshop, or project activities.
- Emphasis on proper handling of tools, machinery, and hazardous materials to mitigate risks.

Safety Guidelines and Manuals:

- Clearly defined safety guidelines and manuals accessible to all students, providing detailed information on protocols and emergency procedures.
- Regular updates and reminders to ensure continued awareness of safety measures.

Personal Protective Equipment (PPE):

- Strict enforcement of PPE usage, including safety glasses, helmets, gloves, and lab coats, as appropriate for different activities.
- Regular checks to ensure students are adhering to PPE requirements.

Equipment Maintenance:

- Regular inspection and maintenance of laboratory and workshop equipment to ensure proper functioning and reduce the risk of accidents.
- Immediate repair or replacement of faulty equipment.

Emergency Response Plans:

- Clearly communicated emergency response plans, including evacuation procedures, first aid stations, and contact information for emergency services.
- Periodic drills to familiarize students and faculty with emergency protocols.

Supervision and Monitoring:

- Adequate supervision of practical sessions by qualified instructors to oversee activities and intervene if safety standards are compromised.
- Continuous monitoring of student projects to ensure adherence to safety guidelines.

Material Handling Procedures:

- Specific procedures for the safe handling, storage, and disposal of materials, chemicals, and hazardous substances.
- Training on proper material handling techniques to minimize risks.

Workshop Rules and Etiquette:

- Clear communication of workshop rules and etiquette to instill a culture of responsibility and accountability among students.
- Enforcement of guidelines to maintain a safe working environment.

Health and Wellness Programs:

- Implementation of health and wellness programs to address the physical and mental well-being of students.
- Access to counseling services for stress management and academic-related concerns.

Regular Safety Audits:

- Conducting periodic safety audits to assess the effectiveness of safety measures and identify areas for improvement.
- Collaboration with external safety experts for comprehensive evaluations.

Communication Channels:

- Establishing effective communication channels to report safety concerns anonymously.
- Prompt investigation and resolution of reported safety issues.

Collaboration with Industry Standards:

- Alignment of safety procedures with industry standards and regulations to ensure graduates are well-prepared for workplace safety expectations.
- Integration of industry best practices into safety protocols.

By implementing these procedures, the Mechanical Engineering Program aims to create a learning environment where students can confidently engage in hands-on activities while prioritizing their health and safety.

G. Program Management and Regulations

1. Program Management

1.1 Program Structure

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

Councils:

- Mechanical engineering Department council

Boards:

- Mechanical engineering Advisory Board

Units:

- Quality and Academic Accreditation Unit

Committees:

- Commission for Academic Accreditation
- Strategic Planning Committee
- Committee for Development and Quality
- Commission and Laboratory Devices
- Commission Tables and Examinations
- Curriculum Committee and Study Plans
- Commission for Annual Report

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.)

A survey are distributed to students, Faculty Members , Faculty External Advisory Board, alumni, employers and so on to ascertain their learning progress, opinions and satisfaction on the program.

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.)

1. Deanship of admission and registration: https://www.ut.edu.sa/ar/Deanship/dar/Pages/default.aspx

2. Deanship of student affairs
   https://www.ut.edu.sa/ar/Deanship/student-affairs/Pages/default.aspx
3. Deanship of graduate studies
   https://www.ut.edu.sa/ar/Deanship/graduate-studies/Pages/default.aspx
4. Deanship of quality and development
   https://www.ut.edu.sa/ar/Deanship/quality-and-development/Pages/default.aspx
5. Deanship of E-Learning & distance education
   https://www.ut.edu.sa/ar/Deanship/distance-education-unit/Pages/default.aspx
6. Deanship of scientific research
   https://www.ut.edu.sa/ar/Deanship/scientific-research/Pages/default.aspx
7. Deanship of library affairs

   https://www.ut.edu.sa/ar/Deanship/library-affairs/Pages/default.aspx

8. Deanship of Community Service and Continuing Education
   https://www.ut.edu.sa/ar/Deanship/cscd/Pages/default.aspx

9. Institute of languages

https://www.ut.edu.sa/ar/Centers/language-teaching-institute/Pages/default.aspx

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

https://www.ut.edu.sa/ar/Faculties/engineering/Mechanical/Documents/BSc_MEP_Quality%20Assurance%20Manual.pdf

2. Program Quality Monitoring Procedures

Course Evaluation Mechanism:

- Implement a comprehensive course evaluation mechanism where students provide feedback on courses offered by other departments.
- Include parameters such as course content, teaching methods, relevance to the program, and overall satisfaction.

Cross-Departmental Committees:

- Establish cross-departmental committees comprising faculty members from various departments, including those offering courses to Mechanical Engineering students.
- Regular meetings to review and discuss the quality of courses, addressing any identified issues.

Feedback Loop:

- Establish a feedback loop between the Mechanical Engineering Program and other departments, fostering open communication regarding course quality.
- Encourage dialogue to share insights, improvements, and suggestions for enhancing the learning experience.

Peer Reviews:

- Conduct peer reviews where faculty members from the Mechanical Engineering Program attend classes offered by other departments.
- Provide constructive feedback and suggestions for improvement based on observed teaching methods and course delivery.

Alignment with Program Objectives:

- Ensure that courses offered by other departments align with the overall objectives and learning outcomes of the Mechanical Engineering Program.
- Regularly review and update program objectives to reflect industry needs and advancements.

Assessment of Learning Outcomes:

- Collaborate with other departments to assess the learning outcomes of shared courses.
- Ensure that assessments align with program standards and contribute to the development of well-rounded engineering professionals.

Curriculum Mapping:

- Develop a comprehensive curriculum mapping system to track how courses from other departments fit into the overall curriculum of the Mechanical Engineering Program.
- Identify any gaps or redundancies in the curriculum.

Regular Audits:

- Conduct regular audits of courses offered by other departments to ensure adherence to quality standards.
- Assess whether courses remain relevant to industry trends and technological advancements.

Professional Development Opportunities:

- Offer professional development opportunities for faculty members teaching in other departments.
- Ensure that they stay abreast of best practices in pedagogy and incorporate innovative teaching methods.

Student Performance Data:

- Analyze student performance data in courses offered by other departments.
- Identify trends, areas of improvement, and potential interventions to enhance student success.

Collaborative Workshops and Training:

- Organize collaborative workshops and training sessions involving faculty from various departments.
- Share best practices, discuss teaching methodologies, and foster a culture of continuous improvement.

Periodic Reviews:

- Conduct periodic reviews of the overall curriculum, taking into account the feedback received from students and faculty.
- Implement changes and updates as needed to enhance the quality of the entire program.

By implementing these procedures, the Mechanical Engineering Program aims to ensure that courses offered by other departments contribute effectively to the holistic development of its students, aligning with industry standards and program objectives.

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

NA

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

NA

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

NA

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

The ME department has set its mission to attain the highest quality education in mechanical engineering, addressing the evolving needs of industry and the society. In order to maintain such goals, it is crucial to get engaged in self-assessment process to highlight the points of strengths and otherwise weaknesses, for improvement, in the ME program. Normally, this process is repeated every 2 years.

All PLOs are assessed using both direct and indirect assessment methods. Direct method is conducted by ME faculty via examination or observation of student knowledge or skills against measurable learning objectives or performance. Indirect assessment is performed by students and it can provide information about student perception of their own learning and skills. The participants in the direct assessment method are:

A. **Course instructors:** By measuring the CLOs related to specific PLOs in a controlled environment (Exams and Quizzes). The outcomes assessed by course instructors are the technical outcomes S1, S2, S3, and K1. Samples of exam cover page that helps the ME faculty in collecting the data is available for the reviewers upon request.
B. **Graduate Project (GP) advisors:** By observing the students' skills using measurable performance indicators and rubrics indicators that will be presented later in this chapter. The outcomes assessed by GP advisors are the professional outcomes C2, C3, and C4. Samples of the observation sheet used by the ME faculty to conduct the assessment are available for the reviewers upon request.
C. **GP examination committee:** A committee of two or three members that performs the examination of all ME GP. The GP committee assesses outcome C1 by observing the GP students' communication skills using measurable performance indicators and rubrics. Writing communication skills are assessed from the report submitted by the GP students and the oral communication skills are assessed from the presentations. Samples of the observation sheet used by the GP committee to conduct the assessment are available for the reviewers upon request.

The data for the indirect assessment is collected using the exit survey. Tables 1.a and 1.b present the assessment plan of the ME program that is applied for four semesters. PLOs are assessed using most of the ME program required courses and the elective courses. For continuous improvement process, a new plan shall be established in which each PLOs is assessed once at least every two semesters (one academic year).

Table 1.a: Assessment plan of the technical student outcomes

	Direct assessment					Indirect
	Responsibility	Method	Source of Data	Fall **(2 years)**	Spring (2 years)	
K1	Course Instructor	Examination	midterm exams, final exams, quizzes and homework	✓	✓	
S1	Course Instructor	Examination	midterm exams, final exams, quizzes and homework	✓	✓	
S2	Course Instructor	Examination and Observation	Report and Lab exam	✓	✓	
S3	Course Instructor	Examination	midterm exams, final exams, and quizzes	✓	✓	

Table 4.3.b: Assessment plan of the professional student outcomes

	Collecting Direct assessment Data			Selected	Indirect
	Responsibility	Method	Source of Data		
S4	GP Committees	Observation	GP Report & Presentation		
V1	GP Advisor	Observation	GP semester work		
V2	GP Advisor	Observation	GP semester work		
V3	GP Advisor	Observation	GP semester work		

Mechanisms of Using its Results in the Development Processes

The analysis of the assessment results was oriented towards identifying the reasons behind the non-attainment of a specific program learning outcome as well as finding out ways to resolve these issues in the subsequent semester that course is offered. At the end of each semester/beginning of following semester, an assessment committee meeting will be held at the department level in order to evaluate the teaching achievements and issues of the past semester based on course assessment reports prepared for each course taught. An improvement plan will result based on that meeting. All faculty members will be involved and work together to implement the improvement plan during the following semester(s).

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Teaching & Assessment Effectiveness	Students, Faculty, Alumni, Program Leaders, Administrative Staff	Surveys, Interviews, Classroom Observations	End of Each Semester
Learning Resources	Students, Faculty, Program Leaders, Independent Reviewers	Surveys, Inspections, Resource Utilization Analysis	End of Each Academic Year
Student Support Services	Students, Alumni, Program Leaders, Administrative Staff	Surveys, Interviews, Service Utilization Analysis	Mid and End of Each Semester
Partnerships & Collaborations	Faculty, Program Leaders, Employers, Alumni, Administrative Staff	Surveys, Interviews, Partnership Evaluations	End of Each Academic Year
Curriculum Relevance & Alignment	Students, Faculty, Alumni, Employers, Program Leaders	Surveys, Interviews, Curriculum Review Analysis	End of Each Academic Year
Professional Development	Faculty, Program Leaders, Employers, Alumni, Administrative Staff	Surveys, Interviews, Professional Growth Analysis	Mid and End of Each Academic Year
Program Leadership & Governance	Faculty, Administrative Staff, Program Leaders	Surveys, Interviews, Governance Effectiveness	End of Each Academic Year
Student Admissions Process	Program Leaders, Administrative Staff, Admitted Students	Interviews, Admissions Process Analysis	Beginning of Each Academic Year
Facilities & Equipment	Students, Faculty, Program Leaders, Independent Reviewers	Surveys, Inspections, Facility Utilization Analysis	End of Each Academic Year
Health & Safety Procedures	Students, Faculty, Administrative Staff, Health & Safety Officers	Surveys, Inspections, Incident Reports Analysis	Throughout the Academic Year

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 (4) year.

* including KPIs required by NCAAA

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1- Mission and Goals	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	50%	Data regarding the achievement rate of all the indicators as in the program operational plan should be collected and the overall achievement percentage should be calculated.	End of each academic year
3- Teaching and Learning	KPI-P-02	Students' Evaluation of quality of learning experience in the program	3.25	Exit survey should be conducted among the final year students to assess the quality of learning experiences. The percentage of students who strongly agree or agree to the statements in the survey is to be calculated.	End of each academic year for the student at level 8
	KPI-P-03	Students' evaluation of the quality of the courses	3.25	Online Course Survey should be conducted to the students towards the end of the semester to assess their registered courses. The percentage of respondents who strongly agree or agree is to be calculated from the survey	End of each semester before the final exm
	KPI-P-04	Completion rate	55%	Data regarding the number of students who registered in the 1st semester of the year 1 (N1) and number of students who completed the graduation in the end of the year 5 (N2) are to be collected. The percentage (N1/N2)*100 has to be calculated.	End of each academic year
	KPI-P-05	First-year students retention rate	100%	Data regarding the number of students who registered in the start of the first academic program year (N1) and number of students who registered in the start of the second academic program year (N2) are to be collected. The percentage (N1/N2)*100 has to be calculated	End of each academic year
	KPI-P-06	Students' performance in the professional and/or national examinations	60%	Data regarding the number of students who participated in the national and professional exam (N1) and number of students who have succeeded the exam (N2) are to be collected. The percentage (N1/N2)*100 has to be calculated	End of each academic year
	KPI-P-07	Graduates' employability and enrolment in postgraduate programs	30%	Data regarding the number of students who graduated (N) at the end of each year, and number of students who are employed (N1)	Start of each next academic year

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
				and the number of students enrolled in graduate studies programs (N2) are to be collected. The percentage ((N1+N2)/N)*100 has to be calculated.	
	KPI-P-08	Average number of students in the class	35	Data regarding the number of students who registered in the current semester (N) and number of active sections (N1) are to be collected. The average number of students in a class (N/N1) has to be calculated.	End of each academic year
-4 Students	**KPI-P-09**	Employers' evaluation of the program graduates' proficiency	NA	Employer survey (Q-GA) should be conducted to assess the proficiency of the graduates. The percentage of employers who strongly agree or agree to the statements in the survey has to be calculated.	End of each academic year
	KPI-P-10	Students' satisfaction with the offered services	2.5	The survey (Q-SS) should be conducted among the students to assess their satisfaction level with the offered services. The percentage of students who strongly agree or agree to the statements in the survey has to be calculated	End of each academic year
	KPI-P-11	Ratio of students to teaching staff	20:1	Data should be collected regarding the number of faculty members and the number of students assigned for each course. The ratio between the number of teachers and the students assigned for each course has to be calculated.	End of each academic year
-5 Teaching Staff	**KPI-P-12**	Percentage of teaching staff distribution	10 % (Prof) 40% (Asso. Prof) 40% (Assist. Prof) 20% (Lect)	Data should be collected regarding the number of teaching staff based on the gender (male/female), based on academic rankings (Prof., associate prof., asst prof, lecturers) and the percentage has to be calculated out of the total teaching staff	End of each academic year

	KPI-P-13	Proportion of teaching staff leaving the program	**Less the 10%**	Data is to be collected from the HoD regarding the number of teaching staff leaving the institution for reasons other than age retirement and the total number of teaching staff in the department. Percentage of number of teaching staff leaving the institution out of the total number of teaching staff has to be calculated	End of each academic year
	KPI-P-14	Percentage of publications of faculty members	30%	Data regarding the total number of teaching staff and number of teaching staff who have at least one	End of each academic year

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
				research publications should be collected and thereby percentage is calculated.	
	KPI-P-15	Rate of published research per faculty member	**9:1**	Data regarding the total number of teaching staff and the total number of research publications should be collected from NBU research deanship and percentage should be calculated	End of each academic year
	KPI-P-16	Citations rate in refereed journals per faculty member	1	Data regarding the total number of teaching staff who have research publications and the total number of citations in research publications should be collected from NBU research deanship and percentage should be calculated.	End of each academic year
-6 Learning Resources, Facilities, and Equipment	**KPI-P-17**	Satisfaction of beneficiaries with the learning resources	2.75	Survey (Q-LS) should be conducted among the students to assess the satisfaction level with the learning resources. The percentage of students who strongly agree or agree to the statements in the survey has to be calculated	End of each academic year

I. Specification Approval Data

Council / Committee	**MECHANICAL ENGINEERING COUNCIL**
Reference No.	**COUNCIL NO.3, 12/02/1443**
Date	**12/02/1443**