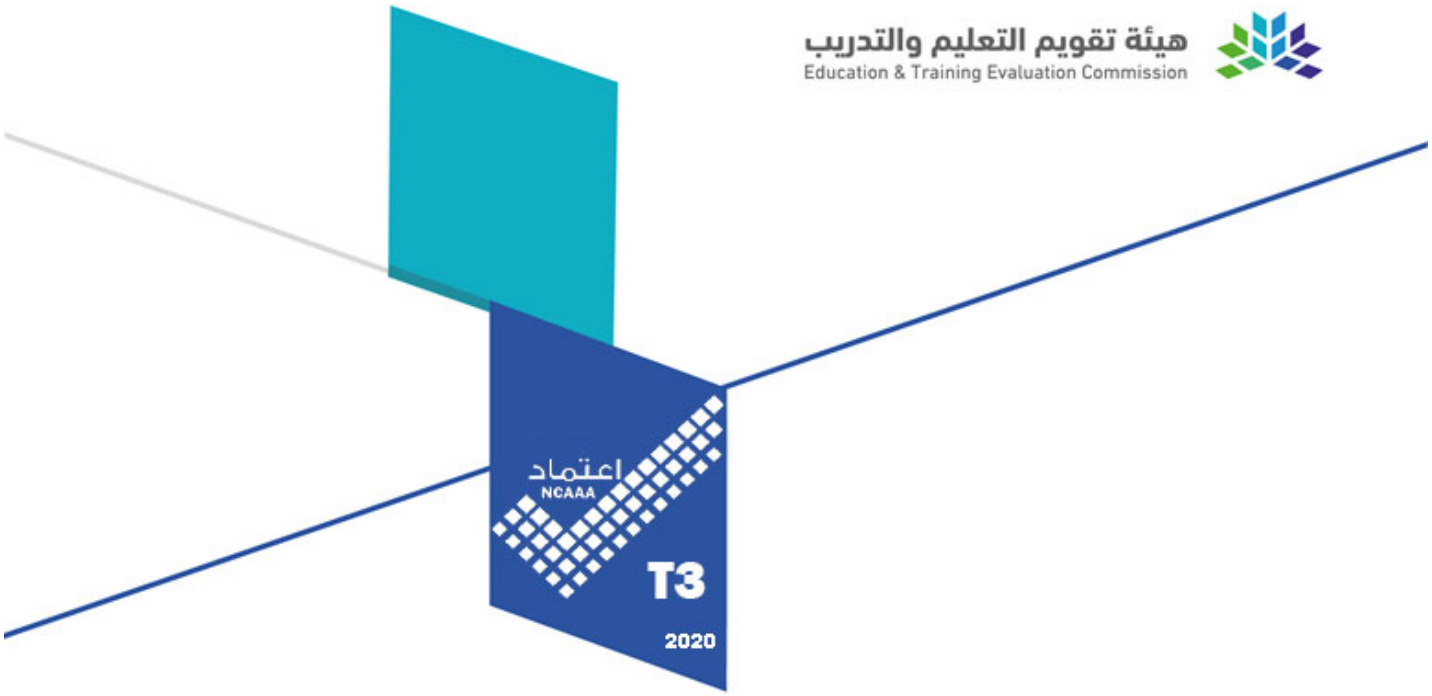
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Program Specification

Program Name: Bachelor of Science in Civil Engineering
Qualification Level: 6th Level
Department: Civil Engineering Department
College: College of Engineering
Institution: Taif University

Content

A. Program Identification and General Information

1. Program Main Location:

Main Campus, Hawiyah, Taif

2. Branches Offering the Program:

NA

3. Reasons for Establishing the Program:

(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

Governorate of Taif is very huge area, it belongs to Emirate of Mecca, and close to Jeddah as an economic capital city of Saudi Arabia, it's like other province has the same concern of improvements from the government. For this concern, Taif University (TU) was established to fulfill the markets need, and Taif society in general. Moreover, in order to improve and enhance the engineering industry, and to improve the career of engineers too, many program are established for the same concern. For this issue, the reasons for establishing the Civil Engineering program at TU can be summarized as follows:

- **Economic Reasons**
  - **Preparing academic, research and professional competencies that meet the requirements of the labor market in civil engineering profession.**
  - **Preparing national Saudi staff in the field of civil engineering to participate effectively in achieving the objectives of the human capacity development program and the Kingdom's vision 2030.**
- **Social/Cultural Reasons:**
  - **Providing specialized community services in the field of civil engineering.**
  - **Developing the surrounding local environment on scientific bases in accordance with national trends in civil engineering profession.**
  - **To compensate the shortage of Civil Engineers in the Kingdom of Saudi Arabia.**
- **Technical Reasons:**
  - **Carrying out technological development plans of the Kingdom.**
  - **Keeping up the modern technologies in the field of civil engineering to keep pace with global developments.**
- **National Development Reasons:**
  - **Compatibility with the national developments and strategic directions of the human capacity development program and the vision of the Kingdom 2030 in the field of engineering.**
  - **Reducing the level of dependency on the foreign engineers in civil engineering profession in KSA.**
  - **Graduating engineers qualified for higher civil engineering studies (M.Sc., Ph.D., … etc).**

4. Total Credit Hours for Completing the Program: (153 Credit Hrs)

5. Professional Occupations/Jobs:

Our graduates have different career chances in various companies and agencies in the Kingdom of Saudi Arabia. These companies and agencies are listed below.

- The consulting and engineering offices.
- The constructions and contracting companies
- The general institution for water refined
- The military occupations management
- The water and sewage authority
- The Saudi commission for the engineers
- The general institution for ports
- The Saudi company for the basic industries (SABIC)
- The construction materials factories
- The Saudi airlines
- The Saudi Arabia Aramco company
- The unified Saudi company for electricity (SCECO)
- All engineering administrations in the governmental authorities

The projects operation and maintenance administrations in the governmental authorities.

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

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

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

Intermediate exit points/awarded degree	Credit hours
1.	

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

"To advance the profession of civil engineers through teaching, research and serving as a highlycapable resource for society".

2. Program Goals:

Our graduates will …

- ***PG-1:*** *Perform and practice planning and engineering design that are based on sound principles and that consider functionality, safety, economic viability and sustainability.*
- ***PG-2:*** *Advance in professional practice, ethical awareness and societal implications.*
- ***PG-3:*** *Enhance their skills through enrolling in graduate studies, attending workshops orbecoming a member in one of the professional societies.*

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

1. Regarding Missions

- Taif University Mission is: "***To develop nationally competitive competencies that contribute to the production of knowledge and its transformation into an engine for developmen***t. "

This mission statement is available online at:
https://www.tu.edu.sa/En/University/Pages/10012/Mission

The mission statement of the Taif University can be summarized as:

U1. To develop nationally competitive competencies (Education)
U2. that contribute to the production of knowledge (Research)
U3. and its transformation into an engine for development (Community Services)

- College of Engineering Mission "

"The College of Engineering at Taif University is dedicated to excellence in education, research, and professional service. Its mission is to graduate distinct engineers in the various disciplines of engineering, equipped with knowledge skillsin accordance with academic standards and ethical requirements of society. Such mission extends to upgrade the graduates' capabilities through training courses, workshops and providing distinct post-graduate programs. In addition, The Collegeof Engineering conducts applied research that would contribute to solving environmental and engineering problems of society."

This mission statement is available online at:

https://www.tu.edu.sa/En/College-of-Engineering/103/Pages/20450/Mission

The college mission can be summarized into simpler statements as follows:

C1. distinct engineers in the various disciplines of engineering equipped with knowledge and skills.
C2. assure academic standards and ethical requirements of society.
C3. upgrade the graduate capabilities through training courses, workshops andprovide distinct post-graduate programs.
C4. conduct applied research that would contribute to solve environmental andengineering problems of society.

- Civil Engineering Program Mission "

"The mission of the Civil Engineering department is to advance of the profession through teaching, research and serving as a highly capable resource for society. The graduates are to be technically knowledgeable, well-founded, fully aware of fundamentals of basic science, engineering science and ethical and societal responsibilities. We strive to enhance graduates' skills through enrolling in graduate studies, life-long training and interacting with the professional societies."

This mission statement is available online at:

https://www.tu.edu.sa/En/Civil-Engineering-Department/241/Pages/21214/Mission

The mission statement of the Civil Engineering Program can be summarized as:

P1. Advance the profession of civil engineers through teaching to be technically knowledgeable, well-founded, fully aware of fundamentals of basic science, engineering science and ethical and societal responsibilities.

P2. Advance the profession of civil engineers through research by enrolling in graduate studies, life-long training and interacting with the professional societies

P3. Advance the profession of civil engineers through serving as a highly capable resource for society.

- **Alignment of the Missions of Program and University**

The following table is showing such mapping

Program Mission	University Mission		
	U1	U2	U3
P1	✓	------	------
P2	------	✓	------
P3	------	------	✓

- **Alignment of the Missions of Program and College**

The following table is showing such mapping

Program Mission	College Mission			
	C1	C2	C3	C4
P1	✓	------	------	-----
P2	-----	-----	✓	------
P3	------	✓	------	✓

2. Regarding Goals

- The strategic goals of the university are:

UStr.G#1: Improving the quality of education and learning outcomes
UStr.G#2: Effective participation in scientific research in community development.
UStr.G#3: Effective participation in the provision and development of community services
UStr.G#4: Raising the efficiency of the administrative system.
UStr.G#5: Raise the efficiency of human resources and infrastructure
UStr.G#6: Raising financial efficiency and self-development

- The strategic goals of the College can be summarized as follows:

The following statements summarize the strategic goals University, College and Departmentmissions.
CStr.G#1: Professional and high-quality education
CStr.G#2: Research Studies.
CStr.G#3: Human capital and engineering professional

- The civil engineering program goals are as follows:

Our graduates will …

- *PG#1: Perform and practice planning and engineering design that are based on sound principles and that consider functionality, safety, economic viability and sustainability.*
- *PG#2: Advance in professional practice, ethical awareness and societal implications.*

- *PG#3: Enhance skills through enrolling in graduate studies, attending workshops or becoming a member in one of the professional societies.*

i. **Alignment of the Goals of Program and University**

	UStr. G#1	UStr.G#2	UStr.G#3	UStr. G#4	UStr. G#5	UStr. G#6
PG#1	✓	------	✓	------	✓	------
PG#2	✓	------	✓	✓	✓	------
PG#3	------	✓	✓	------	✓	✓

ii. Alignment of the Goals of Program and College

The following table is showing such mapping

		College Goals		
		CStr.G#1	CStr.G#1	CStr.G#1
Program Goals	PG#1	✓	✓	✓
	PG#2	------	------	✓
	PG#3	------	✓	✓

3. Mapping between program mission and goals

The table matrix is showing the mapping between the program mission and its goals. The mission was earlier summarized into 3 main statements (**P1&P2&P3**) and also the program goals earlier noted as **PG#1&PG#2&PG#3.**

		Program Mission		
		P1	P2	P3
Program Goals	PG#1	✓	------	------
	PG#2	------	✓	------
	PG#3	------	------	✓

4. Graduate Attributes:

A. Creativity and Innovation.

B. Critical Thinking and Problem Solving.

C. Communication Skills.

D. Efficiency and Technical Skills.

E. Self-direction Skills for Life-long Learning.

F. Professionalism and Ethics.

G. Leadership and Responsibility Skills.

5.Program learning Outcomes*	
Knowledge and Understanding	
K1	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
K...	
Skills	
S1	An ability to identify, formulate, and solve complex engineering problems by applying principles of 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 judgment to draw conclusions.
S4	An ability to communicate effectively with a range of audiences.
S...	
Values	
V1	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.
V2	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
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	18	11.76%
	Elective	2	4	2.61%
College Requirements	Required	16	47	30.73%
	Elective	0	0	0.00%
Program Requirements	Required	30	68	44.44%
	Elective	4	8	5.23%
Capstone Course/Project		2	6	3.92%
Field Experience/ Internship		1	2	1.31%
Others		0	0	0.00%
Total		64	153	100%

* Add a table for each track (if any)

2. Program Study Plan

Institution	College	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level-1	990311-2	University Study Skills	Required	-------	2	Institution
	999805-2	English for Intensive Academic Purposes (1)		-------	2	Institution
	2028110-3	Mathematics (1)		-------	3	College
	802201-3	Introduction to Computer Programming		-------	3	College
Level-2	2004111-2	Fundamentals of Islamic Culture	Required	-------	2	Institution
	999806-2	English for Intensive Academic Purposes (2)		999805-2	2	Institution
	8021201-2	Engineering Drawing		-------	2	College
	2028120-3	Mathematics (2)		2028110-3	3	College
Level-3	990211-2	Arabic Language Skills	Required	-------	2	Institution
	105115-2	History of the Kingdom		-------	2	Institution
	203205-4	Physics		2028110-3	4	College
	204102-3	General Chemistry		-------	3	College
Level-4	2022101-3	Multi Variable Calculus	Required	2028120-3	3	College
	8012103-3	Statics		2028120-3	3	Department
	999816-2	Special English Language for Engineering		999806-2	2	College
	8012102-2	Hydraulics (1)		203205-4	2	Department
Level-5	2004112-2	Islamic Culture (Morals and Values)	Required	2004111-2	2	Institution
	8022101-3	Introduction to Engineering Design (1)		999806-2	3	College
	8012201-2	Civil Drawing		8021201-2	2	Department
	8012101-2	Fundaments of Engineering Economy		-------	2	College
	8012205-2	Surveying (1)		2028110-3	2	Department
Level-6	2022102-4	Mathematical Methods	Required	2022101-3	4	College
	8012202-3	Structural Analysis (1)		8012103-3	3	Department
	8012203-2	Technical Reports		999816-2	2	Department
	8012204-2	Hydraulics (2)		8012102-2	2	Department
Level-7	As per Electives 'Table	Elective University (1)	Elective	-------	2	Institution
	2028102-4	Differential Equations	Required	2022101-3	4	College
	8013103-2	Structural Analysis (2)		8012202-3	2	Department
	8032101-3	Basics of Electrical Circuits		203205-4	3	College
Level-8	2004313-2	Islamic Culture (3)	Required	2004112-2	2	Institution
	2023104-2	Linear Algebra		2028120-3	2	College
	2024116-3	Probability and Statistics		2028120-3	3	College
	8013101-2	Engineering Geology		203205-4	2	Department
	8013203-3	Properties and Strength of Construction Materials		8012202-3	3	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level-9	As per Electives 'Table	Elective University (2)	Elective	-------	2	Institution
	2023206-3	Numerical Analysis	Required	2028102-4	3	College
	8013201-2	Geotechnical Engineering (1)		8013101-2	2	Department
	8013102-2	Surveying (2)		8012205-2	2	Department
	8013202-2	Water Resources Engineering		8012204-2	2	Department
Level-10	8014102-2	Geotechnical Engineering (2)	Required	8013201-2	2	Department
	8014104-3	Design of Reinforced Concrete Structures (1)		8013103-2	3	Department
	8014105-2	Transportation and Traffic Engineering		2024116-3	2	Department
	8014205-3	Sanitary and Environmental Engineering		8012204-2	3	Department
Level-11	8014101-3	Design of Steel Structures (1)	Required	8013103-2	3	Department
	8014206-2	Building Construction		8012201-2	2	Department
	8014103-2	Concrete Technology		8013203-3	2	Department
	8014203-3	Highways Engineering		8014105-2	3	Department
Level-12	2004414-2	Islamic Culture (4)	Required	2004313-2	2	Institution
	8014201-3	Design of Reinforced Concrete Structures (2)		8014104-3	3	Department
	8014202-2	Foundation Engineering		8014102-2 8014104-3	2	Department
	8014204-2	Construction Methods and Equipment		8014103-2	2	Department
Summer Session after Level-12	8014301-2	Summer Training	Required	Dept. approval	2	Department
Level-13	8015102-2	Contracts, Specifications and Quantity Surveying	Required	8014206-2	2	Department
	8015202-2	Design of Steel Structures (2)	Required	8014101-3	3	Department
	Elective	Elective course (1)	Elective	As per electives' Table	2	Department
	Elective	Elective course (2)	Elective	As per electives' Table	2	Department
Level-14	8015103-2	Construction Management	Required	8014204-2	2	Department
	8015101-3	Project (1)		Dept approval	3	Department
	8015204-2	Sustainable Infrastructure Projects		8013102-2	2	Department
	Elective	Elective course (3)	Elective	As per electives' Table	2	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level-15	8015104-2	Railways Engineering	Required	8014105-2	2	Department
	8015201-3	Project (2)	Required	8015101-3	3	Department
	Elective	Elective course (4)	Elective	As per electives' Table	2	Department
	8015203-2	Engineering Ethics	Required	-------	2	Department

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

University Elective Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
List for University Elective (1)						
Level-7	990113-2	Health Culture	Elective	-------	2	Institution
	990312-2	Innovation and Entrepreneurship		-------	2	
	990412-2	Digital Citizenship		-------	2	
List for University Elective (2)						
Level-9	990314-2	French language	Elective	-------	2	Institution
	990315-2	Chinese Language		-------	2	
	999809-2	Presentation Skills		-------	2	
	999814-2	IELTS Preparation		-------	2	
	999815-2	Academic Writing		-------	2	
	999821-2	English Language and Skills for the Twenty-first Century		-------	2	

Department Elective Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level-13	8015301-2	Special Topics in Public Works Engineering	Elective	------	2	Department
	8015302-2	Advanced Highways Engineering		8014203-3	2	
	8015303-2	Advanced Transportation Engineering		8014105-2	2	
	8015304-2	Remote Sensing		8013102-2	2	
	8015305-2	Special Topics in Highways Engineering		8014203-3	2	
	8015306-2	Photogrammetric Surveying		8013102-2	2	
	8015307-2	Geographic Information System		8013102-2	2	
	8015308-2	Engineering applications of surveying		8013102-2	2	
	8015309-2	Airports Engineering		8014203-3	2	
	8015310-2	Special Topics in Surveying		8013102-2	2	
	8015311-2	Advanced Traffic Engineering		8014105-2	2	
	8015312-2	Reinforced Concrete 3		8014201-3	2	
	8015313-2	Inspection, Maintenance and Strengthening of Structures		8014103-2	2	
	8015321-2	Special Topics in Construction Engineering		------	2	

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level-14&15	8015314-2	Advanced Construction Management Engineering	Elective	8015103-2	2	Department
	8015315-2	Concrete Bridges		8014201-3	2	
	8015316-2	Foundation on Problematic Soils		8014102-2	2	
	8015317-2	Design of Composite Structures		8014201-3	2	
	8015318-2	Dynamics of Structures and Earthquake Engineering		8013103-2	2	
	8015319-2	Applications of Nanotechnology in Civil Engineering		8014103-2	2	
	8015320-2	Deep and Special Foundations		8014202-3	2	
	8015322-2	Harbor Engineering and Coastal Protection		8012204-2	2	
	8015323-2	Hydrology of Groundwater		8013202-2	2	
	8015324-2	Design of modern IrrigationSystems		8013202-2	2	
	8015325-2	Buildings SanitaryInstallation		8014205-3	2	
	8015326-2	Advanced Hydraulics		8012204-2	2	
	8015327-2	Dams Engineering		8012204-2	2	
	8015328-2	Special Topics in Water Resources Engineering		------	2	
	8015329-2	Hydraulic Modelling		8012204-2	2	

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

https://tinyurl.com/mw93ajyn

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)**

* Add a table for each track (if any)

Course Code	Course Title	Program Learning Outcomes						
		Knowledge and understanding	Skills				Values	
		K1	S1	S2	S3	S4	V1	V2
105115-2	History of the Kingdom							
2028110-3	Mathematics (1)	I	I					
204102-3	General Chemistry	I	I		I			
802201-3	Introduction to ComputerProgramming	I				I		
2004111-2	Fundamentals of Islamic Culture							
999805-2	English for Intensive Academic Purposes (1)							
2028120-3	Mathematics (2)	I	I					
203205-4	Physics	I	I		I			

Course Code	Course Title	Program Learning Outcomes						
		Knowledge and understanding	Skills				Values	
		K1	S1	S2	S3	S4	V1	V2
8021201-2	Engineering Drawing	I	I			I		
990211-2	Arabic Language Skills							
990311-2	University Study Skills							
999806-2	English for Intensive Academic Purposes (2)							
2022101-3	Multi Variable Calculus	I	I					
8012101-2	Fundaments of Engineering Economy	I	I					I
8012102-2	Hydraulics (1)	I	I		I			
8012103-3	Statics	I	I					
8022101-3	Introduction to EngineeringDesign 1		I	I		I	I	
999816-2	Special English Language for Engineering							
2022102-4	Mathematical Methods	P	P					
8012201-2	Civil Drawing	P				P		
8012202-3	Structural Analysis (1)	P	I					
8012203-2	Technical Reports					P	I	I
8012204-2	Hydraulics (2)	P	P		P			
8012205-2	Surveying (1)	P	P		P			
2004112-2	Islamic Culture (Morals and Values)							
2023103-4	Differential Equations	P	P					
2023104-2	Linear Algebra	P	P					
8013101-2	Engineering Geology	P	P					
8013102-2	Surveying (2)	P	P		P			
8013103-2	Structural Analysis (2)	P	P					
As per Electives' Table	Elective University (1)							
	Elective University (2)							
2023206-3	Numerical Analysis	P	P					
2024116-3	Probability and Statistics	P	P					
8013201-2	Geotechnical Engineering (1)	P	P		P		P	
8013202-2	Water Resources Engineering	P	P					P
8013203-3	Properties and Strength of Construction Materials	P	P		P		P	
8032101-3	Basics of Electrical Circuits	P	P		P			
2004313-2	Islamic Culture (3)							
8014101-3	Design of Steel Structures (1)	P	P	P				
8014102-2	Geotechnical Engineering (2)		P		P		P	
8014103-2	Concrete Technology		P		P		P	
8014104-3	Design of Reinforced Concrete Structures (1)	P	P	P				
8014105-2	Transportation and Traffic Engineering	P	P					P
2004414-2	Islamic Culture (4)							

Course Code	Course Title	Program Learning Outcomes						
		Knowledge and understanding	Skills				Values	
		K1	S1	S2	S3	S4	V1	V2
8014201-3	Design of Reinforced Concrete Structures (2)	M	M	M				
8014202-2	Foundation Engineering	M	M	M				
8014203-3	Highways Engineering		M	M				M
8014204-2	Construction Methods and Equipment	M	M				M	
8014205-3	Sanitary and Environmental Engineering	M	M	M				M
8014206-2	Building Construction	M				M		
8014301-2	Summer Training	M	M		M	M	M	M
8015101-3	Senior Project (1)	M	M		M	M	M	M
8015102-2	Contracts, Specifications and Quantity Surveying	M					M	M
8015103-2	Construction Management		M				M	M
8015104-2	Railways Engineering			M	M	M	M	M
8015201-3	Senior Project (2)	M	M	M	M	M	M	M
8015202-2	Design of Steel Structures (2)	M	M	M				
8015203-2	Engineering Ethics	M						M
8015204-2	Sustainable Infrastructure Projects	M			M		M	M

Elective Courses

Course Code	Course Title	Program Learning Outcomes						
		Knowledge and understanding	Skills				Values	
		K1	S1	S2	S3	S4	V1	V2
8015301-2	Special Topics in Public Works Engineering							
8015302-2	Advanced Highways Engineering		M	M				M
8015303-2	Advanced Transportation Engineering		M					M
8015304-2	Remote Sensing		M				M	
8015305-2	Special Topics in HighwaysEngineering							
8015306-2	Photogrammetric Surveying		M		M		M	
8015307-2	Geographic Information System	M			M	M		
8015308-2	Engineering applications of surveying		M		M		M	
8015309-2	Airports Engineering	M	M	M				M
8015310-2	Special Topics in Surveying							
8015311-2	Advanced Traffic Engineering		M	M			M	M
8015312-2	Reinforced Concrete 3	M	M	M				

Course Code	Course Title	Program Learning Outcomes						
		Knowledge and understanding	Skills				Values	
		K1	S1	S2	S3	S4	V1	V2
8015313-2	Inspection, Maintenance and Strengthening of Structures		M	M				M
8015321-2	Special Topics in Construction Engineering							
8015314-2	Advanced Construction Management Engineering		M				M	M
8015315-2	Concrete Bridges	M	M	M				
8015316-2	Foundation on Problematic Soils		M	M				M
8015317-2	Design of Composite Structures		M	M				M
8015318-2	Dynamics of Structures andEarthquake Engineering	M	M					
8015319-2	Applications of Nanotechnology inCivil Engineering	M	M					M
8015320-2	Deep and Special Foundations	M	M	M				
8015322-2	Harbor Engineering and Coastal Protection	M	M	M				
8015323-2	Hydrology of Groundwater		M		M			M
8015324-2	Design of modern Irrigation Systems	M	M	M				
8015325-2	Buildings Sanitary Installation		M	M		M		M
8015326-2	Advanced Hydraulics		M	M				
8015327-2	Dams Engineering	M	M	M				
8015328-2	Special Topics in Water Resources Engineering							
8015329-2	Hydraulic Modelling	M	M					

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.

There are many teaching and learning strategies that are being used by the program during offering the various courses of the study plan. The deanship of university development has launched a manual for teaching, learning and assessment strategies at Taif University. This manual is describing the main policies and the concepts of various learning, teaching and assessment strategies. Moreover, the suitable curricular and extra-curricular activities for each learning domain are also included. This manual is available online at:

https://www.tu.edu.sa/Attachments/f2ac36ba-261c-41f4-99f7-8ad8dc248850_.pdf

The following learning strategies are used:

1. **Class lectures.**
2. **Dialogue and Discussion**
3. **Problem based learning.**
4. **Self-learning**
5. **Brain storming.**
6. **Problem Solving**
7. **Project based learning**
8. **Creative learning and Patents**

9. Cooperative learning 10. E-learning

11. Practical presentation 12. Survey strategy

The following table is introducing the alignment of Program Learning Outcomes with the Teaching Strategies that may be used for each learning domain.

Code	Program Learning Outcomes	Teaching Strategies
1.0	**Knowledge and Understanding**	
K-1	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Lectures – Brain storming – Mind mapping – Concept mapping – e-learning Dialogue and discussion -
2.0	**Skills**	
S-1	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	Problem-Solving – e-learning - Problem based learning - Dialogue and discussion. Via small discussion groups -
S-2	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.	Project based learning - Brain storming - Practical Presentations
S-3	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	Problem-Solving –Problem based learning - Dialogue and discussion. Via small discussion groups - Project based learning - Brain storming - Practical Presentations
S-4	An ability to communicate effectively with a range of audiences.	- Dialogue and discussion. Via small discussion groups - Project based learning - Brain storming - Practical Presentations
3.0	**Values**	
V-1	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.	Cooperative learning – Self education – Projects based learning – Practical presentations
V-2	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	

It should be pointed that the curricular and extra-curricular activities that may be used through teaching different courses are including the following activities:

1. **Discussions Panels** 2. **Cultural activities**

3. **Societal activities** 4. **Attending Workshops**

5. **Attending Training Courses** 6. **Attending Conferences**

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.

The assessment measures are categorized into direct and indirect methods ofassessment. They are carried out for both courses and program levels.

- **Course Level:**
  - **Direct assessment**
    - **Assessment phase**

      Tools Used:
      - The actual attainment levels of students in a course through exams, quizzes, reports and assignments.
    - **Evaluation phase**
      - Define Levels of attainment of Learning Outcomes (LOs) for evaluating students' direct assessment results.
      - Tabulate and Display LOs Achievement based on students' direct assessment results
      - Comment on LOs assessment
  - **Indirect assessment**
    - **Assessment phase**

      (Carried out by each section instructor - near completion of semester)

      Tools Used:
      - Course survey [Course Learning Outcomes (CLOs) and Program Learning outcomes (PLOs) Survey]
    - **Evaluation phase**
      - Define Levels of Attainment of PLOs for evaluating indirect assessment survey.
      - Tabulate and Display PLOs Achievement based on Indirect Surveys
      - Comment on PLOs assessment
- **Program Level:**
  - **Direct assessment**
    - **Assessment phase**

      Tools Used:
      - The actual attainment levels of students in taught courses.
      - Define Level of Attainment of PLOs for evaluating students' direct assessment results
    - **Evaluation phase**
      - Tabulate and Display PLOs Achievement based on students' direct assessment results
      - Comment on PLOs assessment
  - **Indirect assessment**
    - **Assessment phase**

      Tools Used:
      - Course Surveys (CLOs survey)
      - Exit Surveys

- Alumnus Surveys
- Employer Surveys
- Capstone Project Surveys
- Summer Training Survey
- Faculty Meetings

The deanship of university development has launched a manual for teaching, learning and assessment strategies at Taif University. This manual is describing the main policies and the concepts of various learning, teaching and assessment strategies. Moreover, the suitable curricular and extra-curricular activities for each learning domain are also included. This manual is available online at:

https://www.tu.edu.sa/Attachments/f2ac36ba-261c-41f4-99f7-8ad8dc248850_.pdf

The following table is introducing the alignment of Program Learning Outcomes with the direct and indirect assessment methods that may be used to measure PLOs' achievement in each domain of learning.

Code	Program Learning Outcomes	Direct Assessment Methods	Indirect Assessment Methods
1.0	**Knowledge and Understanding**		
K-1	**An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.**	**Quizzes – Written Exams (Final or Mid-Terms) – Exit Exam – Professional Exam such as FE.**	**Surveys such as: [Program Evaluation Survey – Course Evaluation Survey – Capstone Project Survey – Exit Survey]**
2.0	**Skills**		
S-1	**An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics**	**Assignments, -Exams - Quizzes – Discussion panels – Workshops - Presentations – Reports - Rubrics**	**Surveys such as: [Program Evaluation Survey – Course Evaluation Survey – Capstone Project Survey – Exit Survey]**
S-2	**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.**	**Discussion panels – Case studies -Mini-Projects – Workshops – Rubrics**	
S-3	**An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.**	**Practical exams - Discussion panels – Workshops - Presentations – Reports - Rubrics**	

S-4	An ability to communicate effectively with a range of audiences.	Discussion panels – Workshops - Presentations – Reports - Rubrics	
3.0	**Values**		
V-1	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.	Posters - Case studies - Oral Exams - Mini-Projects – Research Projects - Workshops – Rubrics	Surveys such as: [Program Evaluation Survey – Course Evaluation Survey – Capstone Project Survey – Exit Survey]
V-2	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts		

D. Student Admission and Support:

1. Student Admission Requirements

Students' admission requirements of the program can be summarized in the following points:

- The program adheres to specific and unified conditions and criteria in accepting new students.
- Students have to submit for a limited time an application for admission electronically through the university's website (https://webapps.tu.edu.sa/admission).
- The Program uses the electronic system available through the university electronic gate for managing the admission and registration processes.
- The program follows the rules of acceptance and transfer processes approved by Taif University administration.

Moreover, student Admission requirements and courses prerequisites are also included in the college hand which isavailable online in:
https://www.tu.edu.sa/Attachments/43c24c17-1507-4961-8810-4316480f052b_.pdf

It should be pointed that Taif University administration has dispatched some regulations and guidelines that organizes the admission and registration requirements for all programs. These are available by accessing the following guides and regulations links:

1- Policies and Procedures Manual for the Deanship of Admission and Registration.
https://www.tu.edu.sa/Attachments/c0a3e8a1-12e5-4c57-b9d5-97b4c67c50ef_.pdf

2- Student Handbook at Taif University
https://www.tu.edu.sa/Attachments/41dc8a24-22b7-4ae1-9b31-3608de8bcf8b_.pdf

3- Simplified Academic Guide at Taif University
https://www.tu.edu.sa/Attachments/5b497048-df49-4d1b-86ce-12197525e307_.pdf

4- Regulations for study and exams for the undergraduate level and the executive rules at Taif University

https://webapps3.tu.edu.sa/dar/pdf/s1.pdf

2. Guidance and Orientation Programs for New Students

Every year, the College administration organizes an orientation program for the new students of all programs. An academic component to orientation will give the new students the advantage they will need in making the transition from high school to college life. The program begins before classes start. Through this orientation, brochures and information bulletins are distributed to all students. The program includes the following:

- A live presentation illustrating a welcome word from the dean as well as overview of the services offered to students and advices for a successful academic life.
- A tour to the college buildings and labs. To discover and know the classrooms, labs. Staff offices etc.,

For more details, the Student Handbook at Taif University which includes the guidelines for Orientation Program Guide for New Students is available online through the following link.

https://www.tu.edu.sa/Attachments/41dc8a24-22b7-4ae1-9b31-3608de8bcf8b_.pdf

3. Student Counseling Services

(academic, career, psychological and social)

The University requires student advising by faculty members. It is an important teaching-related activity. A faculty member is expected to advise students in planning their academic programs during early registration, registration and throughout the academic year whenever a student seeks his advisor's input in academic matters. Not only that but also, the advisor guides his students in their career in different ways such as recommendation for a specific subject for the senior design project and also selection for suitable training sites. In addition, the advisor helps the students in the psychological and social issues that they may suffer during their study years.

The university has established a specific administration for academic advising that includes five different units. These units are academic advising unit, psychological Guidance and counseling, disables counselling unit,

Organizes the academic and professional advising of students in all colleges and programs. The following link is showing these administrations, its units, its vision and mission and the rules governing its responsibilities.

https://tinyurl.com/5n8rpxdf

Moreover, the college of engineering has established a specific unit for academic and professional advising that leading the advising issues in all programs. The following section will highlight the enrollment advising and procedure as well as the main responsibilities of the academic advisor.

- ***Enrolment Advising and Procedure***

Academic advisors are considered the corner stone of educational process in which provides educational counselling for students. The department chairman allocates a group of students to each faculty member. This allocation is recorded into Taif University electronic admission system for students' access. Each advisor has on-line access to the records of the students he is advising. All students are registered automatically through Taif University electronic admission system following a model plan of study set by the department. This plan includes

all pre-requisites, maximum and minimum allowable number of credit hours per semester. The system allows the student to make changes and adjustments within the present rules. All students, except the new ones, can check their registered courses and schedule for the upcoming semester and make the necessary adjustments during the last days of the previous semester in consultation with his adviser. It is during the first week of classes that students are allowed to make changes, such as add/drop courses. Afterwards, only course withdrawals are allowed provided they are done five weeks before the final examination period, and with the head of department's approval.

The student who wishes to withdraw from a course is able to do so directly through Taif University electronic admission system. Nevertheless, a student can only drop courses or withdraw from courses if his workload will not fall below a minimum of 12 credit hours. Moreover, a student cannot withdraw from more than one course per semester.

- ***Tasks of the Academic Advisor***

Academic advisors are supposed to provide educational counselling for students. The academic advisor's primary responsibility is to evaluate the student's study plan to ensure it will satisfy university requirements while it meets each student's specific needs. To be effective, the advisor should recognize that each student has different abilities, interests, aspirations, needs, experiences, and problems so that his approach in dealing with students can be different from one to the other. Academic advising cannot, therefore, be a mechanical, routine matter. To fulfill this requirement, the general advising duties can be stated as follows:

- **The academic advisor is expected to deal with students' academic, career, and academic-related personal problems.**
- **The academic advisor helps his advisee students examine the course offerings in their major and understand their graduation requirements.**
- **The academic advisor schedules and plans the prerequisite map of courses for students under his guidance to avoid any conflict and hence, improve the performance of the student through the whole of his study.**
- **The academic advisor helps the student in making the selection of the field experiences and graduation projects.**
- **The academic advisor helps the student explore the career fields within his major and obtain related career information and survey job opportunities.**
- **The academic advisor serves as a link between the student and the administration by counselling the student on matters of failure, on the procedures for dropping and adding courses, course scheduling, and academic progress.**
- **The academic advisor should alarm students of the exclusion procedure well in advance, and of any subsequent changes that might be enforced during the course of their studies.**

For more details, the following links are illustrating the guideline for provided students counselling services at Taif University.

1- Policies and Procedures Manual for the Deanship of Admission and Registration.
https://www.tu.edu.sa/Attachments/c0a3e8a1-12e5-4c57-b9d5-97b4c67c50ef .pdf

2- Student Handbook at Taif University
https://www.tu.edu.sa/Attachments/41dc8a24-22b7-4ae1-9b31-3608de8bcf8b .pdf

3- **Simplified Academic Guide at Taif University**

https://www.tu.edu.sa/Attachments/5b497048-df49-4d1b-86ce-12197525e307_.pdf

4. Special Support

(low achievers, disabled, gifted and talented)

This section is introducing the special support given by the program or through the central units or managements at Taif University for all categories of students that will have special support such as low achievers, disabled and also gifted and talented students.

First of all, the university administration establishes a specific central office for students advising. The students' advisory office launched an electronic gate for all advisor that helps them in categorization of all students depending upon their performance as well as their social and psychological conditions. This office includes the following units:

- **Unit of Academic Counseling**
- **Unit of Guidance and Psychological Counseling**
- **Disability Counselling Unit**
- **Unit of Vocational Guidance**
- **Unit of Awareness and Public Relations**

All of these units and their missions and responsibilities are available through the link:

https://tinyurl.com/mwnw39c2

- **For Disabled Students**

A specific management for people with special needs was also established under the control of deanship of students affairs. It deals with all issues related to students with special needs who already enrolled at Taif University. The following link is illustrating this management including its vision, mission and tasks.

https://www.tu.edu.sa/En/-Deanship-of-Student-Affairs/114/Pages/22265/Management-of-people-with-special-needs

It should be reported that the management of people with special needs at Taif University seeks to provide guidance services for students with special needs and help them to adapt with university environment. On the other hand, the unit for guidance and psychological counseling seeks to provide psychosocial counseling services to students at all levels, finding solutions to the psychological and behavioral problems that impede their academic performance.

- **For talented students:**
  - **The deanship of students' affairs is taking care of all talented students in all fields like cultural, social, sports etc.**
  - **The civil engineering dept. is annually organizing a ceremony at the end of the academic year to honor the outstanding and talented students.**
- **For low achievers students:**

Every academic year, civil engineering dept. is holding meetings with the students with low

GPA. Each academic advisor discusses this issue with the student in charge. Moreover, the dept. head also meet all of these students to identify their problems and the causes of such lower GPA. Most of the academic problems resolve after these meetings. For more details, the following link are illustrating the student hand book which pointed on all issues related to the special supports offered to all students.

https://www.tu.edu.sa/Attachments/41dc8a24-22b7-4ae1-9b31-3608de8bcf8b_.pdf

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	--	5	--	5	--	5
Associate Professors	--	8	--	8	--	8
Assistant Professors	--	14	--	14	--	14
Lecturers	--	3	--	3	--	3
Teaching Assistants	--	4	--	4	--	4
Technicians and Laboratory Assistants	--	6	--	6	--	6
Administrative and Supportive Staff	--	2	--	2	--	2
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

Every academic year, the university administration organizes an orientation ceremony for the new teaching staff. The main tasks included in such orientation are summarized as follows:

- Preparation program (Department manual - meet with faculty members and the technicians at the department)
- Presenting objectives and mission of the department and explain the philosophy of the program and the courses and financial and social needs of the program and where its contributions.
- Presenting the accomplishments of department and faculty members mainly academic and community contributions and transformations undergone by presenting equipment's and facilities available.
- Defined the rights and duties of faculty members at the institution.
- Presenting development opportunities available and the possibility of contribution.

- **Field visit to the department, college and university.**

For more details, the following link is showing the guideline for faculty members at Taif University.

https://taifedusamy.sharepoint.com/:b:/g/personal/accreditation_tu_edu_sa/Eb5j1kitv5xKrVk-LB-j8fMB7BRRqQRLvzvQqdpJDTfb1Q?e=Oack86

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 faculty member is responsible to improve his own professionalism by attending training courses (The University managed professional training courses), research, student projects, consultation, international conferences, workshops and other professional activities. university encourages and supports professional development through the deanship of University Development and Quality, which is a university unit responsible to organize on a regular basis through the academic year various conferences and workshops related to all aspects that interest faculty members. Such activities intend to enhance teaching and research skills of faculty members. The deanship offers the following services:

- **Establishing the strategies and plans for the development of the faculty members according to the requirements and national and international criteria of training.**
- **Development of the capabilities of the faculty members in modern teaching techniques;**
- **Development of the capabilities of the faculty members in designing courses and programs;**
- **Habilitation of new faculty members and prepare them for teaching;**
- **Development of the capabilities of the faculty members in administrative and leadership fields;**
- **Development of the capabilities of the faculty members in communication and interaction with the students and the community.**

All training courses are offered through the University electronic gate system through an electronic Platform named as (Maharat) which is available through the flowing link: https://maharat.tu.edu.sa/

Moreover, each faculty member has to document his specific and professional information such as: qualifications, training courses, publications, awards and patents, committees and memberships and employment qualifications. For this issue, an electronic platform named (professional record) was launched as existed in the following link:

http://empservice.tu.edu.sa/ords_prod/f?p=104:LOGIN_DESKTOP:104934774268401:

The program has a specific committee for teaching staff that organize their issues and announcing the organized activities for their professional development.

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.)

Taif University has a central library that provides all students and staff members with the required learning resources. Moreover, it provides accesses to the Saudi Digital Library for all students and staff members.

In addition, there is a process followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web-based resources.

1. Faculty are submitting the following lists to the library administration:
   - A list of text books and appropriate references.
   - A list of important electronic database.
   - A list of specialized periodicals.
   - A list of new text books to get a sample for verification.
2. Faculty are also submitting a list of the specialized software packages to the deanship of information technology through the college administration.
3. Moreover, they are monitoring the adequacy of such materials by taking the following actions:
   - Updating the central library administration with the new relevanttext books. A template is available online for such issue. The linkshowing this template is:

https://www.tu.edu.sa/En/Deanship-of-Libraries/115/Pages/21521/Proposal-Book

   - Continuous students' feedback on adequacy of the available used textbooks.
   - Faculty continuous updating to the list of used textbooks
   - Continuous updating to the specialized software packages.

For more details, the following link is showing the site of the Central Library at Taif University.

http://libopac.tu.edu.sa/uhtbin/cgisirsi.exe/?ps=uWHHxh3QJR/MAIN/X/60/502/X

In addition, the following link is related to access the Saudi Digital Library through Taif university electronic gate.

https://apps.tu.edu.sa/sdl/default.aspx

2. Facilities and Equipment

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

This section is pointing to the program's facilities in terms of their ability to support the attainment of the learning outcomes and to provide an atmosphere conducive to learning. The Civil engineering program has a strong infrastructure that supports the attainment of the learning outcomes. These include library, laboratories, classrooms and medical facilities.

- ***Library***

Taif University has recently allocated a substantial budget in providing a comprehensive central library which is currently being filled with numerous references such as text books, journals, conferences, workshops, and many more. In the past, there were only an electroniclibrary within the whole campus but nowadays this is completed with a large physical librarythat is located a short distance from the College of Engineering main building. The facilitieswithin this new building include: book shelves that can handle thousands of books and hardcopy publications, several tables and chairs with comfortable reading conditions for studentsand researchers, PC's for direct access to the E-Library that was exclusively available in thepast, but that is now fully integrated with the new Taif University Library. The librarians provide research support for engineering faculty and students; teach information literacy sessions for graduate and undergraduate students; make purchasing decisions concerning engineering resources; assist faculty with citation and publication analysis for their promotion, tenure, and retention evaluations. Beyond that, the engineering librarians serve as advocates for the interests of the college of engineering within the library. The library is opened from 8 a.m. to 3 p.m. from Sunday to Thursday. The link showing the deanship of libraries and its services is:

https://www.tu.edu.sa/En/Deanships/115/Deanship-of-Libraries

On the other hand, the Saudi digital Library (SDL) also provides access for students and staffto comprehensive journals and e-book collections from the major science and technology publishers, Wiley, Elsevier, IEEE and Springer, among others, and collections of technologypublications such as the Safari computer books collection. The central library of TU makes these digital information resources accessible to faculty staff, researchers and students via auser account managed by library staffs and accessible through the university website. The link of SDL through Taif university website is:

http://apps.tu.edu.sa/sdl/default.aspx

- ***Laboratories***

Civil Engineering Department laboratories are located in special separate buildings numbered with the numbers 14, 17, 18 and 23. Somelabs are ready as follows:

- Geotechnical engineering laboratory, (Building 17).
- Surveying and photogrammetry laboratory, (Building 17).
- Hydraulics and Hydrology laboratory, (Building 17).
- Strength of materials and concrete technology laboratory, (Building 17).
- Transportation laboratory, (Building 14).
- Universal Testing Machine Laboratory, (Building 18).
- Heavy Structures laboratory, (Building 23).

The description and photo gallery of each lab. as well as the laboratory safety guidelines are available online through the following link.

https://tinyurl.com/2p8r6acx

The following table is showing the civil engineering laboratories, along with corresponding seating capacity, number of exits, and size in square meters

No.	Laboratory Name	Room No.	Building No.	Capacity	Area	No of Exits
1	Geotechnical engineering	8178	17	15	100	1
2	Surveying and photogrammetry	8180	17	10	80	1
3	Hydraulics and Hydrology	8181	17	15	120	1
4	Strength of materials and concrete technology	8176	17	20	130	1
5	Transportation Engineering	8101	14	20	150	1
6	Universal Testing Machine	----	18	10	70	1
7	Heavy Structures	----	23	10	70	1

- ***Classrooms***

Taif University has wide ranges of classroom facilities to meet the needs of its teaching andlearning mission. General-purpose classrooms are centrally scheduled and managed and aredesigned to serve the entire campus community. Besides the new building, General-purposeclassrooms (also referred to as intelligent classrooms) include rooms that range from small seminar classrooms to large auditoria. They include a wide range of equipment, technology and resources. General-purpose classrooms are sufficiently flexible to meet pedagogical requirements of the many departments, faculty and students who use them.

The classroom facilities used for the instructional program are designed to fulfill therequirements. Classrooms are housed in private buildings in the university. Some classroomscontain from 30 to 60 seats, and others contain 120 seats.

- All classrooms are with modern teaching facilities.
- Air conditioning.
- Computer projector.

There are also special rooms for engineering and civil drawing courses. This type of roomsis most suitable for traditional lectures, A/V Presentations and demonstrations. It should be noted that practical courses are taught in laboratories and workshops.

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

- The university administration establishes a specialized administration for security and safety issues in order to maintain a health and safe environment at the universitycampus.
- Moreover, the college has a teering committee for security and safety that organizes and follows the security and safety issues in all the college's labs. and buildings.
- The program has specified a specific committee for laboratories and safety issues to make sure that all safety requirements are achieved.
- All the buildings of the college are equipped with the safety signs and fire alarms and protection systems.
- All labs. are equipped with safety tools, fire protection and warning signs.
- Laboratory safety guidelines are also available online through the following link:

https://www.tu.edu.sa/En/Civil-Engineering-Department/241/Pages/21281/Labortory-Safety-Guidelines

- The university administration also has a medical services center which offers distinguish medical services for all students, faculty members and employee. The following link is shown this center and its services.

https://tinyurl.com/yeywwcxj

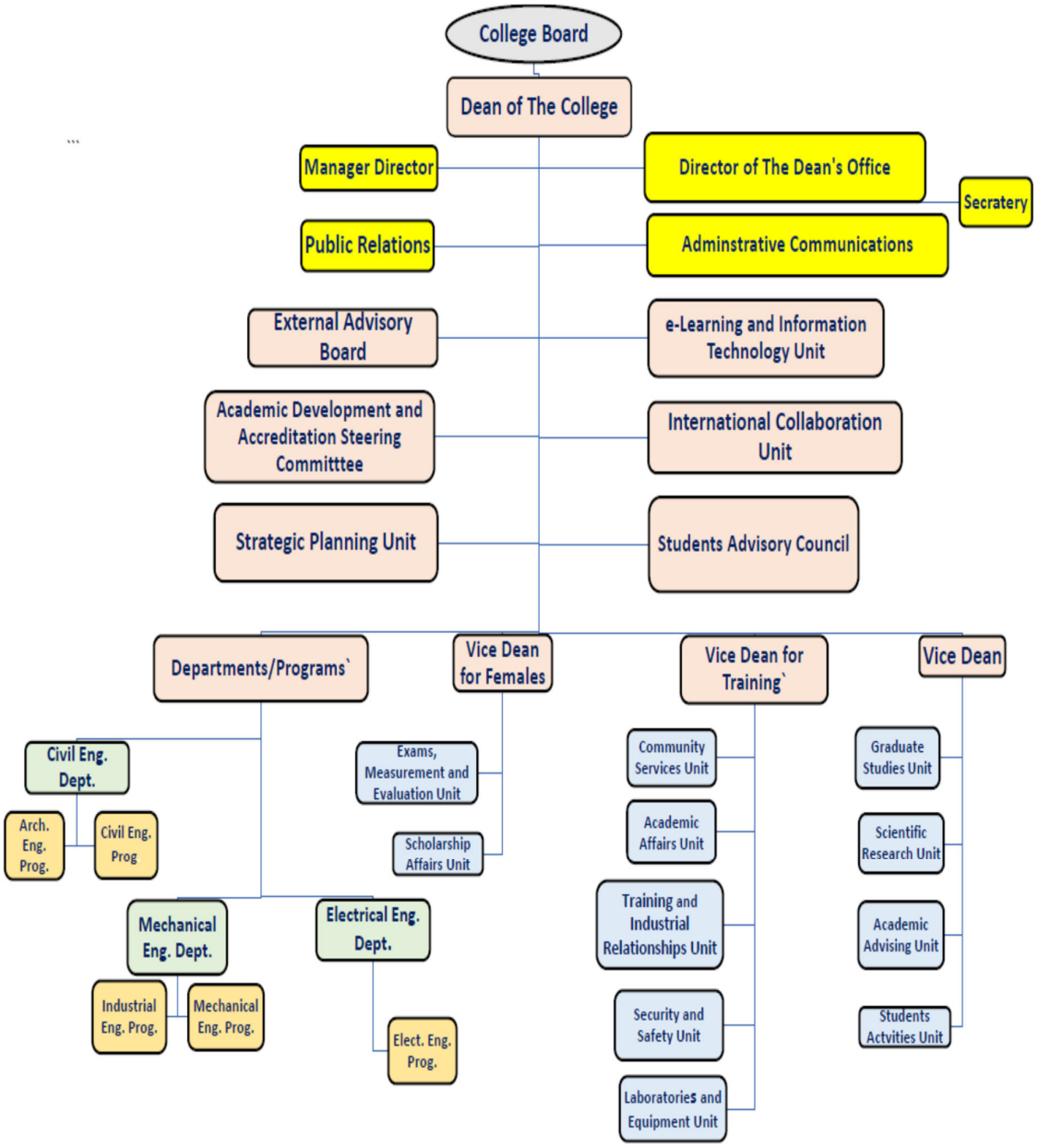
G. Program Management and Regulations

1. Program Management

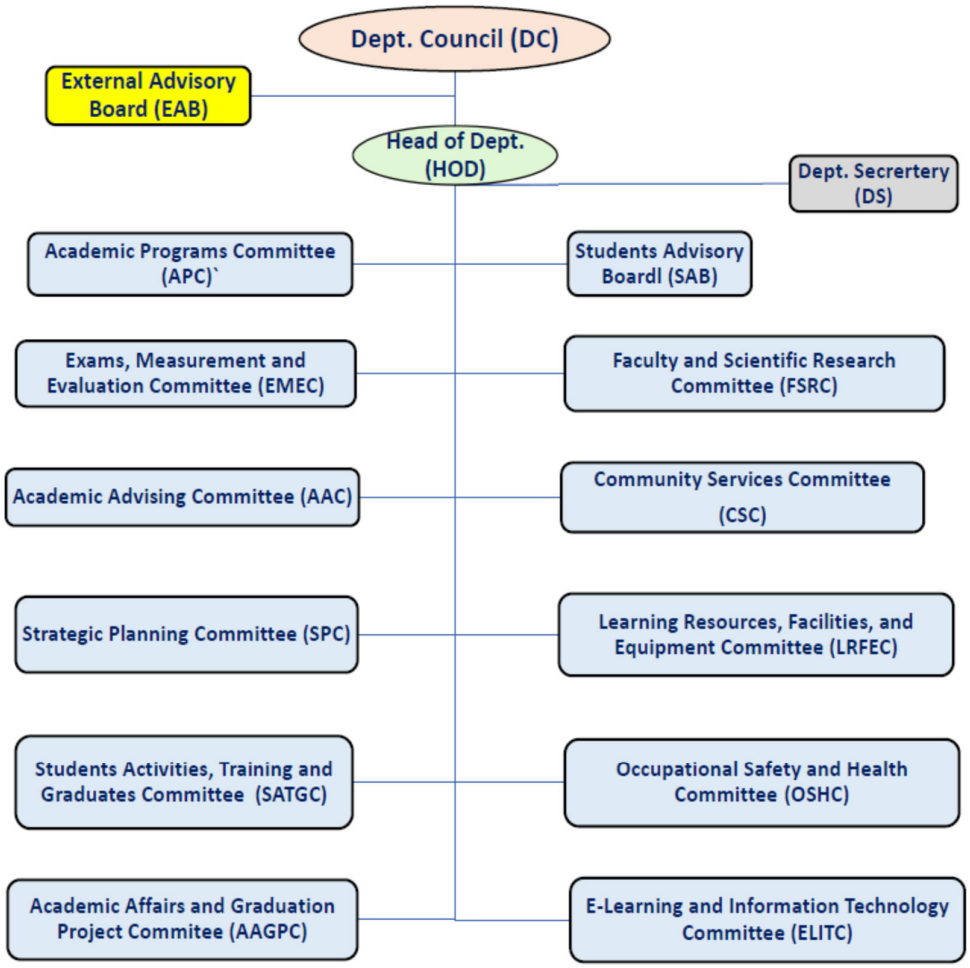
1.1 Program Structure

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

- **College Organiztion Chart**



- **Program Organiztion Chart**



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 stakeholders of the Civil Engineering Program are significant, and actively involved, inthe development and revision of the Program objectives and outcome assessment. The primary program stakeholders are students, faculty members, employers, alumni, and external advisory board. These are described as follows:

- ***Students***

Students are the primary and most important constituency. Therefore, the program objectives should be fashioned taking due account of the academic ability of the students as they enter their program and their goals, aspirations, aptitudes and interests. Students are best able to provide feedback while the program on a course-by-course basis and when close to graduation by reflecting on the way in which the educational components have supported learning in a border sense. Our students are represented by the Student Advisory Board (SAB) which acts as a conduit to communicate student perspectives to the faculty and administration. This board meets at the start

and end of each semester. There are four students at least on the formation team of this board. This is adopted to have at least one representative of each group joins the dept. The choice of those representative students is based mainly on their own motivation to participate in the board activities. Through good announcement of the board activities, each student has the spirit of co-operation and good relationships with his colleague, submits his name to the chairman of this board and joins the board team. It is expected that students become technically qualified, marketable, and productive scientists upon graduation.

Based on the above, students are engaged during the orientation week by giving awareness about the University; college and department policies; flow of term, Course Specification and importance of student's surveys. Students are also given feedback from Students Advisory Board for their improvement and development. Course evaluation surveys are conducted for each course and Program evaluation survey is conducted from the graduates.

- ***Faculty Members***

The members of the faculty of the department have excellent academic credentials and are involved with professional practice to various degrees. They play a vital role in communicating an enthusiasm for the profession and shaping the professionalism of the students. It should be pointed that they have participated in many aspects related to the accreditation requirements. These aspects include establishment of the mission of the dept., generation of the initial set of the PEOs, development the program outcomes and design of the curriculum. Therefore, they are naturally responsible for meeting the program outcomesand objectives during the teaching process. Their participation is done through their membership in the advisory board (some faculty members), the membership in the department council (All faculty members with a PhD degree), and the focus group survey.

In this concern, faculty members are given feedback in Faculty development workshops, consultations during department councils. Faculty members fill in faculty satisfaction surveys by end of every term, Course review meetings are conducted and teachers provide

feedback for improvements. Annual reports by various committees also provide feedback for program planning and development.

- ***Employers***

A special feature of the program is the close-knit relationship between the local communityand the student body. Thus, the employers, whether they belong to industry, governmental agencies or private sectors are an important constituency. They are the beneficiaries of the availability of a well-trained work force envisioned in the mission of the program and have a stake in maintaining and enhancing the quality and the professional content of the program.For this issue, the Career Advisory Board was established in the dept. for development of direct and continuous relationships with the industry for the benefits of students. These benefits include chances for summer training, regular site visits for groups of students and technical lectures related to the site technologies.

- ***Alumni***

Alumni, especially a few years after their graduation, are likely to gain additional perspectives about the Civil Engineering Program and even some of the specific course work.The alumni see the value of their degrees not only in terms of their own skills but also the future reputation of the department. Their view is one that incorporates the experience of matriculating in the program as

well as practicing the profession. The alumni are, therefore,critical to providing general feedback about the program and the curriculum, and to viewingthe program in terms of how it has supported their career growth. They represent a mirror inwhich the current students can see their future image. The alumni through their responses toour questionnaires will provide valuable insights as to those aspects of their education and training. This will be helpful and vital for their growth as professionals and what, if any, enhancements are warranted in our curriculum and adjustments needed in our approach willbe considered.

- ***External Advisory Board***

The External Advisory Board (EAB) for the program is therefore constituted of professionals drawn from organizations likely to employ the graduates of this or a similar program. As potential employers and leaders of the civil engineering professional world, they can and do offer invaluable perspectives of what is needed to keep the objectives and the curriculum in firm contact with the "real world". Therefore, the primary function of the External Advisory Board is providing industry recommendations to:

1. Provide feedback to improve the quality and effectiveness of the civil engineeringB.Sc. degree from Taif University.
2. Evaluate and recommend continuous improvements in the civil engineering department undergraduate curriculum as an essential element in accreditation.
3. Assess the Program Educational Objectives

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.)

The program regulations including admissions, study and exams, recruitment, appeals and complaint regulations are included in the college hand which is available online in:

tinyurl.com/2wzz5k4a

Moreover, the deanship of Admissions and Registration is also presenting the general regulations ofthe university through the following link:

https://www.tu.edu.sa/En/-Deanship-of-Admissions-and-Registrations/112/Pages/21737/Regulations

Furthermore, the university regulations for study and exams are also available through a specific guideline that is available through the following link: **https://www.tu.edu.sa/Attachments/a0e9d911-85a6-4e75-9c3e-a4747094c864_.pdf**

The following link is collecting most of the regulation of the Saudi Ministry for Higher Education as well as the regulations of Taif University related to many aspects such as:

The system and regulations of the Council of Higher Education and Universities at Saudi Arabia, Unified Regulations for Postgraduate Studies at Saudi Universities, Regulations for Student Funds in Saudi Universities. The internal regulation of scientific research ethics at Taif University. Executive Regulations for the Establishment of Student Clubs at Taif University. Disciplinary Regulations for male and female students in Taif University. Regulation of Student Housing at Taif University.

https://tinyurl.com/2d5mtrtx

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

The program has established its quality assurance system based upon the quality assurance manual of Taif University which is available through the following link:

https://www.tu.edu.sa/Attachments/6a76d7fc-44ac-4aa9-9ec0-ebafb65255be_.pdf

In addition, Taif University Guide for the design and development of academic programs is also considered during the establishment of the program quality assurance system. This guide is available through the following link:
https://drive.google.com/drive/folders/1hZr9m58jeB073N9onzLZjpIqdlGHAQRx

All working committees presented through the program organization structure are included in the internal quality management system of the Program

2. Program Quality Monitoring Procedures

The dept. council established a sustainable system for **Program Quality Monitoring Procedure (PQMP)**. This system is mainly based upon evaluation of the KPIs of the program will provide evidence of quality performance since, these indicators are one of the most important tools for assessing the quality of academic programs. The program also is applying the closed cycle of quality methodology (Plan, Do, Check, Act). The program is following the approved monitoring procedures in the Quality Management System Manual at Taif University as well as those approved in the Quality Management System Manual of the program.

The following points are summarizing the process of PQMP:

- The revealed observations through teaching courses reported by the instructors of the offered courses are outlined with their suggestions for improvements.
- The responsible committee/s shown in the program organization chart of the internal quality management system discuss these suggestions with other feedbacks collected from different stakeholders and suggest(s) an action plan for improvement the program to the dept. council.
- The dept. council discusses and approves whatever possible of the action plan that should be implemented during the coming cycle of the courses' delivery.
- The instructors of the courses and all committees in charge must implement the approved action plan to overcome the reported barriers and closing the loop of improvement.
- All committees in charge monitor the implementation of such action plan during the coming cycle of courses delivery and feed backs will be evaluated during the coming assessment cycle after implementation.
- By the end of the program period (after graduating students), a new program specification isestablished (if necessary) and the official steps will be followed for its accreditations.

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

The program has adopted some arrangements for monitoring the quality of courses taught by other departments as follow:

- The Academic Program Committee (APC) is coordinating this issue with the coordinators of the courses taught by other departments.
- The specifications and reports of these courses are showing the quality of these courses'

delivery.

- Students' evaluation of the quality of these courses is also investigated by the corresponding committee of the program for monitoring of their delivery.
- The Academic Development and Accreditation Steering Committee of the College is following such issue to make sure of good delivery of these course and to overcome any obstacles facing these courses.

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

6.1 Assessment Plan for Program Learning Outcomes (PLOs)

To ensure that graduates of the Civil Engineering Program satisfy the its learning outcomes, the curriculum must ensure achievement of each unique learning outcome. Therefore, a mapping was established relating the offered courses through the curriculum with different Program Learning Outcomes (PLOs). CEP is developing and applying direct and indirect assessment techniques. The following table describes how the PLOs are assessed. It containsthe method of assessment, data sources with which these assessment processes are carried out, and how the data is collected.

Results of courses' assessment (direct metrics) are integrated into one table. The weighted average of the attainment levels for a PLO provides the attainment level for this PLO at the program level. ***The*** assessment process is directly assessed each PLO twice: ***once formatively***, using a course that typically appears relatively early in the program (up to level 6), and ***once summative***, using a course that appears relatively late in the program (from level 7 to 10). The philosophy in the **Formative Assessment** is based on the fact that PLOs are infact the abilities at the time of graduation and not the abilities demonstrated in individual courses. All core civil engineering courses that cover most of the civil engineering knowledge areas and they are taken before the graduation is actually just preparing the students to attain the PLOs. Therefore, the Formative Assessments represent the quality of learning and teaching and the data from these assessments are indicators of students' progresstowards the attainment of PLOs. The PLOs are demonstrated by the students in their graduation projects completed in the senior year. The graduation projects cover all the PLOs.For this reason, we call the assessment of the Graduation Project as "**Summative Assessment**".

In addition to the direct assessment at the program level, the indirect assessment is also conducted using additional surveys of Student Outcomes. These surveys include exit surveys, alumni surveys, faculty surveys, employer surveys, senior project surveys, surveys.Results of all of these surveys are integrated in the same way as done using direct metrics. The following table describes how the PLOs are assessed. It contains the method ofassessment, data sources with which these assessment processes are carried out, and how

thedata is collected.

Method of Assessment	Data Sources	How Collected	Conducted by	Collected by	Evaluated by	Reviewed by
Direct Assessment	Student performance marks based on exams, quizzes, home works, mini project, etc.	Paper and electronic copy	Instructors (faculty members)	Instructors (faculty members)	Instructors (faculty members)	Assessment and Continuous Improvement Committee (ACIC)
Indirect Assessment	Student Course Survey		Students	Instructors (faculty members)	Instructors (faculty members)	
	Senior Exit Survey		Senior Students (Level 10)	Program Accreditation Committee (PAC)	Assessment and Continuous Improvement Committee (ACIC)	
	Capstone Project Survey		Senior Students (Level 10)	Senior Projects Committee (SPC)		
	Summer Training Survey		Trainees (Students of Level 8)	Students Affairs and Industry Relationships Committee (SAIRC)		

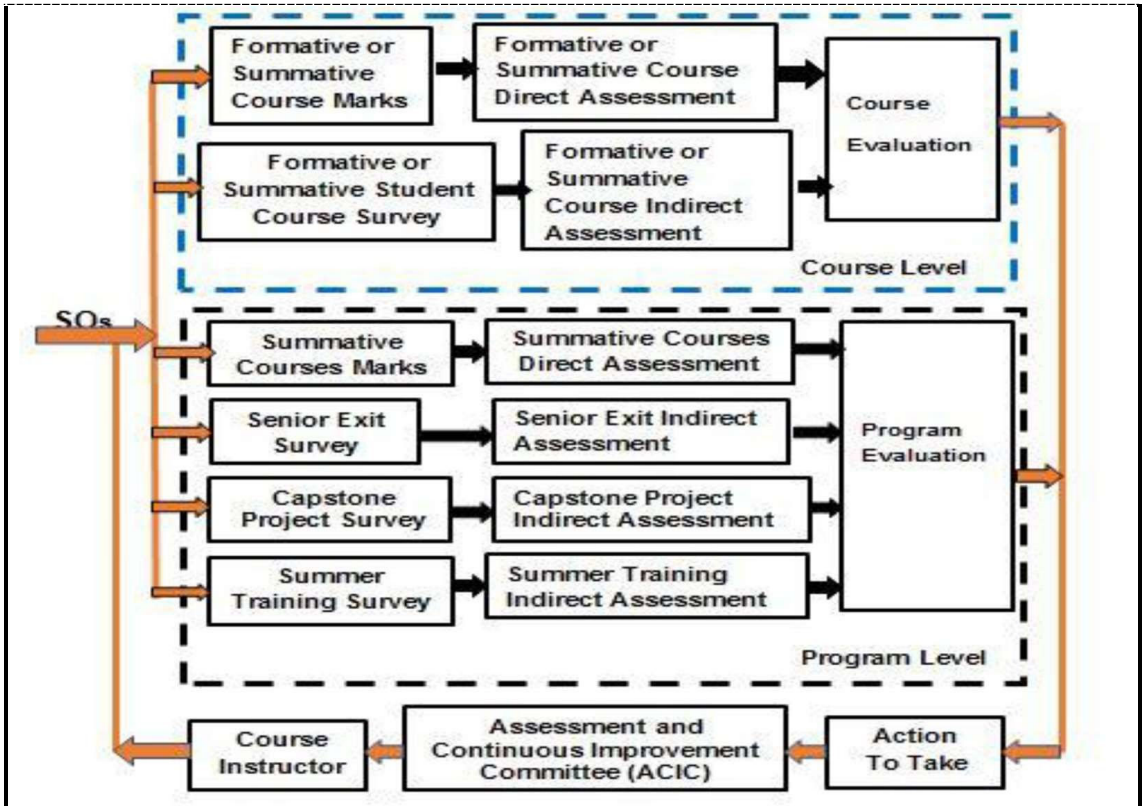
The attainment levels of PLOs are categorized as follows for both the direct and indirectassessments

- **Unsatisfactory** : score in a specific outcome < 70 %,
- **Satisfactory** : 70 % ? score in a specific outcome

6.2 Mechanisms of Using its Results in the Development Processes

The continuous improvement process on the PLOs of the Civil Engineering program of TaifUniversity has always been an ongoing thing since the creation of the Department; for example, we review our syllabus every year, we upgrade our laboratories on regular basis. Based upon the assessments tools, the revealed results of the assessment of PLOs are used inmany aspects for the development processes

1. Assessment of the offered courses for taking actions to be implemented during the coming cycles as shown in the following figure.



2. Curriculum review to fulfill NCAAA and ABET-EAC requirements
3. Summer training evaluation and development
4. Senior projects evaluation and development.

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Program Leadership	Staff Members	Surveys and Interviews	End of Academic Year
Effectiveness of Teaching and Assessment	Students and Independent Reviewers	Surveys and Interviews	End of Academic Year
Learning Resources	Students	Surveys	Beginning of Academic Year
Students' Educational Services	Staff Members and Students	Surveys	Beginning of Academic Year
Students' Professional Skills	Stakeholders, Graduates and Employers	Surveys and Interviews	End of 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 (.....) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan.	80%	Performance indicators that achieved the target level in the operational plan / the total number of targeted indicators] *100	By the end of the academic year
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program	4/5	Survey (Scale from 1:5)	By the end of the academic year
3	KPI-P-03	Students' evaluation of the quality of their courses	4.25/5	Survey (Scale from 1:5)	By the end of the academic year
4	KPI-P-04	Completion Rate	40%	Proportion of students entering undergraduate programs who complete the program in minimum time	By the end of the academic year
5	KPI-P-05	First-Year Students Retention Rate	90%	[first-year undergraduate students who continue at the program the next year / the total number of the first-year students] *100	By the end of the academic year
6	KPI-P-06	Students' performance in the professional and/or national examinations (if any)	60%	Statistics from FE exam results	By the end of the academic year
7	KPI-P-07	Proportion of graduates who employed or enrolled in further study	a. 70% b. 30%	Proportion of graduates from the program who within a year of graduation are: a. employed b. enrolled in further study	After the end of the academic year
8	KPI-P-08	Average Number of students in the class	a. 30 b. 15 c. 15	Average Number of students in: a. lecture b. tutorial c. laboratory sessions	By the completion of the registration process every semester
9	KPI-P-09	Employers' evaluation of the program graduates' proficiency	4/5	Survey (Scale from 1:5)	Every two years
10	KPI-P-10	Student satisfaction withthe services	4/5	Survey (Scale from 1:5)	By the end of the academic year
11	KPI-P-11	Ratio of studentsto teaching staff	1:16	Total number of full-time and full-time equivalent teaching staff to the total number of students in the program	By the start of the academic year

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
12	KPI-P-12	Percentage of teaching staff distribution based on: a. Gender b. Branches c. Academic Ranking	a. N.A b. N.A c.15%:35%:50%	Percentage of teaching staff distribution based on: a. Gender b. Branches **c.** Academic Ranking	By the start of the academic year
13	KPI-P-13	Proportion of teaching staff leaving the program	7%	[Number of teaching staff leaving the program annually for reasons other than age retirement / the total number of teaching staff]* 100	By the start of the academic year
14	KPI-P-14	Percentage of publication of faculty members	75%	Number of full-time faculty members who published at least one research during the year to total faculty members.	By the end of the academic year
15	KPI-P-15	Average research per faculty member	2.50 publication per faculty	Total number of refereed or published researches during the year / Total number of faculty members	By the end of the academic year
16	KPI-P-16	Average of citations in refereed journals	10.00/ Faculty	Total number of citations in refereed journals for all faculty members / Total number of faculty members	By the end of the academic year
17	KPI-P-17	Satisfaction of beneficiaries with learning resources	4 /5	Survey (Scale from 1:5)	By the end of the academic year

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	**Dept. Council**
Reference No.	**(8)**
Date	**28-10-1443 H (29-5-2022)**