

Republic of Iraq
Ministry of higher education & scientific research Supervision and
scientific evaluation directorate
Quality assurance and academic accreditation





Academic Program Specification Form For The Academic

University: Northern Technical University

College: Eng. Technical College/ Mosul

Department: Building and Construction Technical Engineering

Date of form completion:

Dean's Name	Mohammed S. Jarjes Dean's Assistant for Scientific Affairs	Jasim M. Abed Head of Department
Date: / /	Date: 31/3 /2024	Date: 31/3 /2024
Signature 	Signature 	Signature 
	Noor Kahrin Quality Assurance and University performance manager	
Date: 31/3/2024		
Signature 		

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

Prepare technologically proficient engineers with the capability to employ modern techniques in designing, implementing, and maintaining diverse engineering projects. Also, equip them to manage and operate specialized production units for manufacturing construction materials and structural systems. Develop their ability to inspect various types of construction materials and structures. Foster a culture of continuous learning, self-improvement, and accessing reliable information sources. Additionally, cultivate and support creativity, innovation, and development among students and graduates, addressing the cultural requirements related to heritage and economic requirements. Facilitate employment opportunities for graduates, minimizing reliance on foreign competencies.

1. Teaching Institution	Northern Technical University/ Eng. Technical College/ Mosul
2. University Department/Centre	Building and Construction Technical Engineering
3. Programme Title	Bachelor's degree in Eng. Technical College/ Mosul - Department of Building and Construction Technical Engineering
4. Title of Final Award	Bachelor's degree in Eng. Technical College/ Mosul - Department of Building and Construction Technical Engineering
5. Modes of Attendance offered	Bologna
6. Accreditation	Ministry of Higher Education Scientific Research
7. Other external influences	Non
8. Date of production of this specification	٦/١/٢٠٢٤
9. Aims of the Program	
<ol style="list-style-type: none">1- This program aims to grant a Bachelor of Engineering degree in Technical Engineering and graduate technical engineering personnel (technical engineer) who have the ability to design, implement, and maintain all civil engineering projects.2- The program also aims to grant a Master's degree in Building Materials and graduate academic engineering personnel who have high ability in scientific research and maximum benefit from the properties of building materials and their laboratory and field tests.3- Additionally, the department aims to grant a PhD degree in Construction Materials and graduate engineering personnel who keep up with the technological development in the field of construction materials and provide solutions to local problems related to this specialization.	

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

- 1- Conducting applied scientific research in various civil specializations to keep pace with scientific and technical development.
- 2- Providing scientific courses in the field of specialization and continuing education courses to benefit workers in the field of building and construction at various levels, demonstrating openness to society.
- 3- Offering engineering consultations and preparing engineering designs for various engineering projects.
- 4- Maintaining continuous communication with graduates to provide feedback to the department for developing curricula that serve the labor market and contribute to the continuous development of graduates.

B. Subject-specific skills

1. Conducting mathematical calculations and designing facilities and buildings.
2. Conduct non-destructive and destructive examinations to evaluate constructed facilities
3. Conducting tests on all construction materials.

Teaching and learning Methods

Summer and professional training, laboratories, scientific films, and videos (online and in-person), integrated learning, and graduation projects.

Assessment method

Daily , Monthly , Final examination and weekly reports

C. Thinking Skills

1. Applying engineering knowledge and skills to design and construct safe and sustainable structures.
2. Committing to professional ethics and social responsibility in the practice of engineering.
3. Contributing to the development of society by providing innovative and effective engineering solutions.
4. Enhancing sustainability and preserving the environment in construction and building projects.
5. Using appropriate engineering techniques, skills, and tools to improve projects.
6. Designing, conducting, and analyzing experiments and project data.
7. Utilizing suitable engineering techniques, skills, and tools to enhance projects.

Teaching and Learning Methods

Summer and professional training, laboratories, scientific films, and videos (online and in-person), integrated learning, and graduation projects.

Assessment methods

Daily , Monthly , Final examination and weekly reports

D. General and Transferable Skills (other skills relevant to employability and personal development)

1. Teamwork skills.
2. Computer and internet skills.
3. Communication skills, including English language and presentation.
4. Leadership skills and responsibility.
5. Self-learning and lifelong learning skills.

Teaching and Learning Methods

Summer and professional training, laboratories, scientific films, and videos (online and in-person), integrated learning, and graduation projects.

Assessment Methods

Daily , Monthly , Final examination and weekly reports

11. Program Structure

12. Awards and Credits

Level/Year	Course or Module Code	Course or Module Title	Credit rating	
Non	Non	Non	Non	Bachelor Degree Requires (x) credits
The first	Morning Section Evening Section	First Stage - Morning First Stage - Evening	٧٥٠ ٧٥٠	
The second	Morning Section Evening Section	First Stage - Morning First Stage - Evening	٧٥٠ ٧٥٠	
The third	Morning Section Evening Section	First Stage - Morning First Stage - Evening	٧٥٠ ٧٥٠	
The fourth	Morning Section Evening Section	First Stage - Morning First Stage - Evening	٧٥٠ ٧٥٠	

13. Personal Development Planning

1. Self-learning
2. Scientific seminars and symposium
3. Scientific researching and publishing papers
4. Trainee courses outside and inside the country

14. Admission criteria

- High school section
- Occupational school
- The average degree

15. Key sources of information about the programme

1. Book and textbook
2. Scientific catalogues
3. Scientific research and publishing paper
4. Internet

Curriculum Skills Map

Please tick in the relevant boxes where individual Program Learning Outcomes are being assessed

Program Learning Outcomes

Year/level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills relevant to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
First	NTU100	Democracy and Human Rights	Fundamental	B		T	T			B	L	T	P		L	L			P
	NTU101	English Language	Accessory	T			T			P			R		R		T		R
Second	BCE 206	Mathematics	Fundamental	T	L	B	L				T		P				P		R
	BCE 205	Strength of Materials	Accessory	T	B	P								T		L			B
Third	BCE 306	Engineering analysis	Fundamental	T	B		S				R		L					T	
	BCE 312	Numerical Analysis	Accessory	T	P		B				P			T				P	J
Forth	BCE 405	Construction Drawing	Fundamental	T	L		B				L							T	J
	BEC 414	Profisional ethics	Accessory	T	L	B													

B/ Book T/ Theory P/Practical R/Report S/Seminar L/Lab. J/Project

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW:PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provide a concise summary of the main features course and the learning outcomes that a typical student might reasonable expected to achieve and demonstrate if he/she take advantage of the learning opportunities that are provided. It should be cross-referenced with the specification

1. Teaching Institution	Ministry of higher education & scientific research Northern Technical University/ Eng. Technical College/ Mosul	
2. University Department/Center	Applied Mechanics Techniques Engineering	
3. Course title/code		
BEC 101	Construction Materials	
4. Programme (s) to which it contributes : Daily		
5. Modes of Attendance offered		
6. Semester/Year	٢٠٢٤-٢٠٢٣	
7. Number of hours tuition(total) = :1500 hr.		
8. Date of production/revision of this specification	٦/١/٢٠٢٤	
9. Aims of the Course		
Equip the scientific knowledge in medical Lab. Techniques to student depend on instruction in section of private skills of teaching and learning method addition to thinking and personal developments skills		

10. Learning Outcomes , Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

- 1- Conducting applied scientific research in various civil specializations to keep pace with scientific and technical development.
- 2- Providing scientific courses in the field of specialization and continuing education courses to benefit workers in the field of building and construction at various levels, demonstrating openness to society.
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B. Subject-specific skills

1. Conducting mathematical calculations and designing facilities and buildings.
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3. Conducting tests on all construction materials.

Teaching and Learning Methods

Blended learning (Online educational material with online interaction, with place Classroom methods), Scientific Films , Teaching Videos , Laboratories , Trainee and summer internship , Graduation projects

Assessment methods

Daily , Monthly , Final examination and weekly reports

C. Thinking Skills

1. Applying engineering knowledge and skills to design and construct safe and sustainable structures.
2. Committing to professional ethics and social responsibility in the practice of engineering.
3. Contributing to the development of society by providing innovative and effective engineering solutions.
4. Enhancing sustainability and preserving the environment in construction and building projects.
5. Using appropriate engineering techniques, skills, and tools to improve projects.
6. Designing, conducting, and analyzing experiments and project data.
7. Utilizing suitable engineering techniques, skills, and tools to enhance projects.

Teaching and Learning Methods

Blended learning (Online educational material with online interaction, with place Classroom methods), Scientific Films , Teaching Videos , Laboratories , Trainee and summer internship , Graduation projects

Assessment methods

Daily , Monthly , Final examination and weekly reports

D. General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Team work skills
- D2. Computing and Internet skills
- D3. English Lagrange skills
- D4. Leadership and taking the responsibility skills
- D5. Self-learning and lifelong learning

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
Non	Non	Non	Non	Non	Non
Sun.	8:30-10:30		Construction Materials	Projection device and board	Assignments and exams
Wednesday	8:30-10:30		Construction Materials	Projection device and board	Assignments and exams

12. Infrastructure	
Required reading: - CORE TEXTS - COURSE MATERIALS - OTHER	Non
Special requirements (include for example workshops, periodicals, IT software, websites)	workshops
Community-based facilities (include for example, quest, lectures, internship, field studies)	Summer training , quits lechers

13. Admissions	
Per-requisites	High School section , outstanding student in the institute
Minimum number of students	10
Maximum number of students	40