Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form For Colleges and Institutions

University: Northern Technical University
College / Institute: Technical Institute / Mosul
Department:Civil Technical Department

التوقيع :
اسم رئيس القسم : اخلاص سعدي شيت
التاريخ : ١٩/٢/٢٠٢٢

التوقيع :
اسم المعاون العلمي : د. رغد غالب سعدالله
التاريخ :

دقق الملف من قبل
شعبة ضمان الجودة والأداء الجامعي
اسم مدير شعبة ضمان الجودة والأداء الجامعي
التاريخ
التوقيع
محمد خالد يوسف
مسؤول شعبة ضمان الجودة وتقويم الاداء

مصادقة السيد العميد

شهلة عبدالوهاب عبد القادر
عميد المعهد التقني الموصل

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	Northern Technical University
2. University Department/Centre	Mosul Technical Institute
3. Programme Title	Civil Technical Department
4. Title of Final Award	Civil Technical Diploma
5. Modes of Attendance offered	Annual
6. Accreditation	
7. Other external influences	* Scientific updates There is a close relationship with the labor market that receives our graduates, as the opinion of the labor market is
8. Date of production/revision of this specification	2023/9/19

9. Aims of the Programme

a. Conducting field and laboratory examinations of construction materials
b. reading and preparing maps of civil engineering projects
c. implementation of engineering surveys for civil works projects
d. implementation of paragraphs of civil works projects
e. calculating the quantities and arms of civil business projects

10. **Learning Outcomes, Teaching, Learning and Assessment Methods**

A1. Knowledge and Understanding:

A1. Knowledge and understanding of the principles of engineering drawings

A2. Knowledge and understanding of the principles of mechanics and analysis of forces

A3. Knowledge and understanding how to use computers programming

A4. Knowledge and understanding construction materials.

B. Subject-specific skills:

B1. How to conduct field and laboratory engineering tests

B2. How to draw and read maps of engineering projects

B3. How to know the construction machines and related calculations

B4 - How to implement and follow up engineering projects

Teaching and Learning Methods

Theoretical lectures, seminars, panel discussions, scientific developments, laboratory hands-on training, summer training, graduation research

Assessment methods

Daily editorial tests, classroom entries, quarterly and final examinations (theoretical + practical), weekly reports on laboratory experiments, seminars, panel discussions, as well as daily attendance, and discussion of graduation research projects.

C. Thinking Skills:

C1- Being able to do sports calculations

C2 - learning on programming software

C3 - Being able to find solutions of soil mechanics problems

C4 - Being able to complete engineering project from beginning to end

Teaching and Learning Methods

(lecture, workshop, laboratory, systematic training, summer training, graduation projects)

Assessment methods

(oral tests, written tests, quarterly examinations, final examinations, daily assessment, practical tests, reports, daily duties)

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

D1- The skill of using surveying devices

D2 - the skill of doing manual work for construction

D3 - the skill of learning the vocabulary of the English technical language and identifying the most important human rights

D4- The skill of calculating quantities for engineering projects.

Teaching and Learning Methods

Traditional lectures, laboratory training, reporting, screening of scientific films and special videos, scientific visits, summer training, and graduation projects.

Assessment Methods

(Oral tests, written tests, quarterly examinations, final examinations, daily assessment, practical tests, reports, daily duties)

11. **Programme Structure**

Level/Year	Course or Module Title	Credit rating	
		Theor.	Pract.
First Year	Building and Construction Branch	15	18
	Computer Drawing Branch	13	18
Second Year	Building and Construction Branch	12	28
	Computer Drawing Branch	12	21

12. Personal Development Planning

. * Learn about scientific developments which related to specialization
* Participation in relevant scientific conferences
.* Participation in courses within the Institute
.* Participating in courses in institutions of higher education and scientific research
.* Conduct individual or joint scientific research (applied or theoretical)
.* Participating in panel discussions and scientific seminars

13. Admission criteria .

* * De
. * Scientific and professional b

14. Key sources of information about the programme

. * Academic
. * Assistance
. * The Internet and social

Curriculum Skills Map

please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Programme 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 (or) Other skills relevant to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
First Year/ Building and Construction Branch		Construction Materials	Specialized				*												
		Engineering Mechanics	Specialized		*														
		Surveying (1)	Specialized													*			
		Concrete Materials	Specialized				*												
		Mathematics	Specialized									*							
		Computer applications	Assistive			*													
		Engineering Drawing	Specialized	*															*
		Workshops	Specialized														*		
		Technical English Language	Assistive															*	
		Human Rights & Democracy	general															*	
Second Year/ Building and Construction Branch		Concrete technology	Specialized					*											
		Construction technologies	Specialized								*								
		Soil Mechanics	Specialized											*					
		Civil Drawing	Specialized						*										
		Surveying (2)	Specialized													*			
		Construction Equipment	Specialized							*									
		Computer Applications (2)	Specialized			*													
		Quantitative Surveying	Specialized					*		*									
		Building & Prefabricated Construction	Specialized															*	
		Project	Specialized															*	

				Programme 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 (or) Other skills relevant to employability and personal development				
First Year/ Computer drawing branch		Engineering Drawing	Specialized	*																
		Surveying and Cartography	Specialized						*											
		Engineering Mechanics	Specialized		*															
		Construction Materials	Specialized				*													
		Descriptive Geometry	Assistive	*																
		Mathematics	Specialized									*								
		Computer Applications	Assistive			*														
		Workshops	Assistive					*		*										
		Technical English Language	Assistive																*	
		Human Rights & Democracy	general																*	
Second Year/ Computer drawing branch		Architectural Drawing	Specialized	*																
		Structural Drawing	Specialized	*	*															
		Highway & Irrigation Drawing	Specialized	*																
		Mechanical Drawing	Specialized	*	*															
		Electrical Drawing	Specialized	*																
		Sanitary Drawing	Specialized	*																
		Architectural Presentation	Specialized	*																
		Quantitative Surveying	Specialized																	*
		Project	Specialized												*					
		Computer ApplicationS	Specialized										*							

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

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

1. Teaching Institution	Northern Technical University
2. University Department/Centre	Mosul Technical Institute/ civil techniques department
3. Course title/code	
4. Programme (s) to which it contributes	Civil drawing
5. Modes of Attendance offered	* Weekly lesson schedule (theoretical and practical) * Scientific discussions, seminars, other activities
6. Semester/Year	Annual
7. Number of hours tuition (total)	180 h.
8. Date of production/revision of this specification	2023/9/19
9. Aims of the Course	
a . Teaching students to draw engineering maps of buildings	
Student details of all construction work for engineering buildings b. Teaching	
c. Teaching the student the details of engineering maps at all stages	
d. Teaching the student to transfer the information of the engineering map to the work site	
e. Teaching students the foundations used in the preparation of executive map sets	
f. Teach the student to read the engineering map correctly	
g. Teaching the student to draw the electrical parts in the map	
h. Teaching the student to draw the health parts of the map	
i. Teach the student to discover errors in engineering maps	

10· Learning Outcomes, Teaching ,Learning and Assessment Methods

A- Knowledge and Understanding

A1- The student's knowledge of the construction plan

A2 - the student's understanding of how to read plan information

A3 - the student's knowledge of how to implement the paragraphs of planp

A4 - the student's understanding of how to draw a structural plan

B. Subject-specific s

B1 - The skill of drawing accurately and without mistakes

B2 - the skill of accomplishing the works as required by plan

B3 - the skill of drawing the map with the computer

B 4 - the skill of dealing between the theoretical and practical reality in the project site

Teaching and Learning Methods

Theoretical lectures using modern methods, practical lectures at drawing sites, computer laboratories and summer training

Assessment methods

Daily tests, homework in the drawing sites , homework, surprise exams, quarterly exams, final exams

C. Thinking Skills

C1- Identify problem

C2 - collect the required data

C3 - find solutions

C4 - choose the ideal solution

Teaching and Learning Methods

Theoretical lectures using modern methods, practical lectures at drawing sites, computer laboratories and summer training

Assessment methods

Daily tests, homework in the drawing sites , homework, surprise exams, quarterly exams, final exams

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

D1- Practice in engineering projects

D2 - training in engineering offices for projects plan

D3 - access to courses on ready-made software for engineering plans

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	6		Introduction in construction and architectural drawing.	Practical and theoretical discussion	working drawing
2	6		The plan and the first floor of a residential house or a small building.	Practical and theoretical discussion	working drawing
3	6		Longitudinal and cross sections of a residential house or a small building.	Practical and theoretical discussion	working drawing
4	6		Introduction to the sanitary drawing and the fittings of water and sanitary institutions.	Practical and theoretical discussion	working drawing
5	6		The structural details of the inspection basins and attached it with sanitary institutions network.	Practical and theoretical discussion	working drawing
6	6		The structural details of the Septic tanks and storage for house plan.	Practical and theoretical discussion	working drawing
7	6		Introduction to concrete and construction principles, strength of concrete and types of stresses, the suitable reinforcing steel and types.	Practical and theoretical discussion	working drawing
8	6		Concrete slabs, types, load transitions thereof and the necessary reinforcing, with detailing for the	Practical and theoretical discussion	working drawing
9	6		The structural details for the two-way solid slabs.	Practical and theoretical discussion	working drawing
10	6		The structural details for the ribbed one-way and two-way slabs.	Practical and theoretical discussion	working drawing
11	6		Introduction to the types of concrete tributaries and the structural details of simple supported	Practical and theoretical discussion	working drawing
12	6		The structural details of continuous tributaries.	Practical and theoretical discussion	working drawing
13	6		The structural details of the monotonous tributaries.	Practical and theoretical discussion	working drawing
14	6		Introduction to the the structural details of the pre-cast and pre-stressed tributaries.	Practical and theoretical discussion	working drawing
15	6		The plan of tributaries of building structure and set-up tables and details of tributaries.	Practical and theoretical discussion	working drawing
16	6		Sketching the architectural and statistic symbols, lines in maps and drawing models for building and	Practical and theoretical discussion	working drawing
17	6		Sketching the horizontal outline of a residential house or a small building and plan the first floor	Practical and theoretical discussion	working drawing
18	6		Sketching the longitudinal and cross sections and detailed sections of the finishing layers for floors,	Practical and theoretical discussion	working drawing

19	6		Sketching the the sanitary and the fittings of water and sanitary institutions and sanitary	Practical and theoretical discussion	working drawing
20	6		Sketching the structural details of the inspection basins and attached it with sanitary institutions	Practical and theoretical discussion	working drawing
21	6		Sketching the structural details of the Septic tanks and storage for house plan.	Practical and theoretical discussion	working drawing
22	6		Sketching the symbols that used in plans and structural details.	Practical and theoretical discussion	working drawing
23	6		Sketching the structural details for the one-way solid slabs.	Practical and theoretical discussion	working drawing
24	6		Sketching the structural details for the two-way solid slabs.	Practical and theoretical discussion	working drawing
25	6		Sketching the structural details for the ribbed one-way and two-way slabs.	Practical and theoretical discussion	working drawing
26	6		Sketching of structural details of simple supported tributaries with sections.	Practical and theoretical discussion	working drawing
27	6		Sketching of structural details of continuous tributaries and sections.	Practical and theoretical discussion	working drawing
28	6		Sketching the structural details of the monotonous tributaries with their sections.	Practical and theoretical discussion	working drawing
29	6		Sketching the structural details of the pre-cast and pre-stressed tributaries.	Practical and theoretical discussion	working drawing
30	6		Sketching a horizontal plan for tributaries of building structure and set-up tables and details of	Practical and theoretical discussion	working drawing

11. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	Civil drawing book
Special requirements (include for example workshops, periodicals, IT software, websites)	Civil Engineering drawing
Community-based facilities (include for example, guest Lectures , internship , field studies)	All web sites related with civil engineering drawings

12. <u>Subject Development Plan:</u>

* Scientific visits to engineering project implementation

* making advanced computer courses for teachers and technical trainers on modern drawing programs

c. Introducing modern sources in the preparation of lectures

13. **Admissions**	
Pre-requisites	Scientific Academic preparatory school graduate
Minimum number of students	**Building and Construction Branch**= 30 student **Computer Drawing Branch** = 30 student
Maximum number of students	**Building and Construction Branch** = 60 student **Computer Drawing Branch** = 60 student