



Faculty of
Engineering at
benha

Model No.13
Programme Specifications
Civil Engineering
Academic Year 2017 - 2018

Farabi Quality Management of Education and Learning - 22/1/2019 22/1/2019

University : Benha university
Faculty : Faculty of Engineering at benha

A- Basic information :

1. Programme title	Civil Engineering
2. Programme type	Single
3. Adoption program Date	
4- Department responsible for the program	Department 1 - تكنولوجيا الهندسة المدنية / Faculty of Engineering at benha

B- Specialized information :

1- General objectives of the program

- 1- Basic knowledge in different disciplines of civil engineering : analysis and design of concrete and steel structures, structural analysis, technology of building materials, soil mechanics and foundations, sanitary engineering, highways and airports engineering, transportation planning and traffic engineering and surveying.
- 2- Practical skills in the different fields of civil engineering to enhance the ability of graduates in the future employment.
- 3- Ability to define, analyze and solve civil engineering problems to reach proper solutions
- 4- Personal skills that allow proper communication with others and working in group.

2- Intended learning outcomes (ILOS)

a- Knowledge and Understanding

- a1- - Engineering principles in the fields of reinforced concrete and metallic structures' analysis and design, geo-techniques and foundations, hydraulics and hydrology, water resources, environmental and sanitary engineering, roadways and traffic systems, surveying and photogrammetry.
- a2- Properties, behavior and fabrication of building materials.
- a3- Projects and construction management including planning, finance, bidding and contracts.

b- Intellectual Capacity

- b1- Select appropriate building materials from the perspective of strength, durability, suitability of use to location, temperature, weather conditions and impacts of seawater and environment.
- b2- - Select and design adequate water control structures, irrigation and water networks, sewerage systems and pumping stations.
- b3- Analyze and select codes of practices in designing reinforced engineering concrete and metallic structures of all types. Determine the levels, types and design systems of building

foundations, tunnels and excavations.

b4- Define, plan, conduct and report management techniques

b5- Assess and evaluate different techniques and strategies for solving engineering problems

c- Professional Skills

c1- Use laboratory and field equipment competently and safely.

c2- Observe, record and analyze data in laboratory and in the field.

c3- Practice professionally construction management skills. Prepare technical drafts and detailed drawings both manually and using CAD

c4- Carry out maintenance of all types of roadways and traffic systems

c5- Prepare quantity surveying reports

c6- Plan, design, construct, operate, control and carry out maintenance of all types of roadways and traffic systems

d- General Skills

d1- Ability to define, analyze and solve civil engineering problems to reach proper solutions

d2- Personal skills that allow proper communication with others and working in group.

d3- Practical skills in the different fields of civil engineering to enhance the ability of graduates in the future employment.

d4- Basic knowledge in different disciplines of civil engineering : analysis and design of concrete and steel structures, structural analysis, technology of building materials, soil mechanics and foundations, sanitary engineering, highways and airports engineering, transportation planning and traffic engineering and surveying.

3- Academic standards

1- National Academic Reference Standards (NARS).

4- External references for standards (Benchmarks)

1- American Accreditation Board for Engineering and Technology (ABET).

5- Curriculum structure and contents

a - Programme duration 5

b - Programme Structure

1 - No of hours /No of Units :	Theoretical	178	Practical	162	Total	340
	Compulsory	330	Elective	10	Optional	
2 - Basic sciences Courses :	64			18.8% %		
3 - Social sciences and humanities courses :	25			7.4% %		
4 - Specialized courses :	241			70.9% %		
5 - Other Courses :	10			2.9% %		
6 - Practical/field training:	---					

6- Programme courses

-Preparatory Year (الائحة الداخلية لكلية الهندسة بينها)

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
م ١٠٦١	Engineering Drawing A-Engineering Drawing A	1	0	0	3	First Semester
س ١٠١١	Mathematics 1 A	4	4	2	0	First Semester
س ١٠٣١	Physics A	4	4	0	2	First Semester
س ١٠٤١	Chemistry A	4	4	2	2	First Semester
ك ١٠٢١	Computer Fundamentals and Programming A	0	0	0	2	First Semester
ج ١٠١١	Technical English Language A	1	0	2	0	First Semester
م ١٠٧١	Production Engineering and Workshops A- Production Engineering and Workshops A	2	2	0	3	First Semester
س ١٠٢١	Mechanics A	4	4	1	1	First Semester
م ١٠٠٢	Technology and Society-Technology and Society	2	2	0	0	Second Semester
س ١٠٢٢	Mathematics 1 B-Mechanics B	4	4	2	0	Second Semester
س ١٠٤٢	Chemistry B	4	4	2	2	Second Semester
س ١٠١٢	Mathematics 1 B	4	4	2	0	Second Semester
ك ١٠٢٢	Computer Fundamentals and Programming B	0	0	0	2	Second Semester
ج ١٠١٢	Technical English Language B	1	0	2	0	Second Semester
م ١٠٧٢	Production Engineering and Workshops B	2	2	0	3	Second Semester
س ١٠٣٢	Physics B	4	4	0	2	Second Semester
م ١٠٦٢	Engineering Drawing B-Engineering Drawing B	1	0	0	3	Second Semester

b- Optional :

(الإئحة الداخلية لكلية الهندسة بينها) الهندسة المدنية / -First Year

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
س ١١١١	Mathematics 2 A	3	3	2	0	First Semester
١١٤١	Fluid Mechanics	3	3	1	1	First Semester
١١٢١	Properties and Testing of Materials	3	3	1	1	First Semester
١١٠٥	Engineering Applications 1 A	1	1	0	2	First Semester
١١٠١	Computer Applications 1 A	1	0	0	2	First Semester
ك ١١٠٥	Electrical Engineering Technology-Electrical Engineering Technology	3	3	1	0	First Semester
ج ١١١١	Language	1	0	0	2	First Semester
١١٠٣	Civil Drawing A	1	1	0	2	First Semester
١١١١	Structural Analysis 1 A-Structural Analysis 1 A	3	3	2	0	First Semester
١١٠٤	Mechanical Engineering Technology	3	3	1	0	Second Semester
١١٠٢	Computer Applications 1 B-Computer Applications 1 B	1	0	0	2	Second Semester
١١١٢	Structural Analysis 1 B-Structural Analysis 1 B	3	3	2	0	Second Semester
١١٣٢	Plane Surveying	3	3	1	1	Second Semester
١١٢٢	Technology of Building Materials	3	3	1	1	Second Semester
١١٠٦	Engineering Applications 1 B	1	0	0	2	Second Semester
س ١١١٢	Mathematics 2 B	3	3	2	0	Second Semester
١١٠٤	Civil Drawing B	1	1	0	2	Second Semester
ج ١١٢٢	Human Rights	2	2	0	0	Second Semester

b- Optional :

-Second Year / (الإثحة الداخلية لكلية الهندسة ببنها) الهندسه المدنيه

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
١٢٣١ د	Topographic Surveying	3	3	1	1	First Semester
١٢١١ د	Structural Analysis 2 A	3	3	2	0	First Semester
١٢٠٥ د	Engineering Applications 2 A-Engineering Applications 2 A	1	1	0	2	First Semester
س ١٢١٧	Mathematics 5 A	3	3	2	0	First Semester
١٢٤١ د	Hydraulics	3	3	1	1	First Semester
١٢٨٣ م	Industrial Safety	2	2	0	0	First Semester
١٢٢١ د	Concrete Technology	3	3	2	1	First Semester
١٢٠١ د	Computer Applications 2 A	1	1	0	2	First Semester
١٢٤٢ د	Hydrology	3	3	1	1	Second Semester
١٢٠٢ د	Computer Applications 2 B	1	0	0	3	Second Semester
س ١٢١٨	Mathematics 5 B-Mathematics 5 B	3	3	2	0	Second Semester
١٢٥٢ د	Design of Concrete Structures 1	3	3	2	0	Second Semester
١٢٠٦ د	Engineering Applications 2 B-Engineering Applications 2 B	1	1	0	2	Second Semester
١٢٠٨ د	Architectural Engineering	3	3	1	1	Second Semester
١٢٠٤ د	Profession and Society	3	3	0	0	Second Semester
١٢١٢ د	Structural Analysis 2 B	3	3	2	0	Second Semester

b- Optional :

-Third Year / (الإثحة الداخلية لكلية الهندسة ببنها) الهندسه المدنيه

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
د ١٣٠١	Peronals Skills	1	0	0	2	First Semester
د ١٣٣١	Photogrammetry and Geodesy	3	3	1	1	First Semester
د ١٣٦١	Geotechnical Engineering A-Geotechnical Engineering A	3	3	1	1	First Semester

د ١٣٨١	Transportation Planning Traffic Engineering	3	3	1	1	First Semester
د ١٣٥١	Design of Concrete Structures 2 A	3	3	2	0	First Semester
د ١٣٧١	Design of Steel Structures 1 A	3	3	2	0	First Semester
د ١٣٠٠	Technical Report	1	0	0	2	First Semester
د ١٣١١	Structural Analysis 3	3	3	2		First Semester
د ١٣٩٢	Water Supply Engineering	3	3	2	1	Second Semester
د ١٣٠٤	Pollution and Environmental-Pollution and Environmental	1	1	0	1	Second Semester
د ١٣٦٢	Geotechnical Engineering B	3	3	2	1	Second Semester
د ١٣٥٢	Design of Concrete Structures 2 B	3	3	1	1	Second Semester
د ١٣٨٢	Highway Engineering	3	3	1	1	Second Semester
د ١٣٧٢	Design of Steel Structures 1 B	3	3	2	0	Second Semester
د ١٣٤٢	Irrigation and Drainage Engineering	3	3	2	1	Second Semester

b- Optional :

(اللائحة الداخلية لكلية الهندسة ببناها) الهندسة المدنية ب / الهندسة المدنية / -Fourth Year

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
د ١٤٥١	Design of Concrete Structures 3	3	3	2	0	First Semester
ج ١٤٠١	Legislation And Contracts	2	2	0	0	First Semester
د ١٤٤١	Design of Irrigation Works	4	4	2	0	First Semester
د ١٥٠٠	Project	1	1	0	1	First Semester
د ١٤٠١	Field Training	1	0	0	2	First Semester
د ١٤٦١	Design of Foundation A	3	3	2	0	First Semester
د ١٤٩١	Sewerage	3	3	2	1	First Semester
د ١٤٨١	Highway and Airport Engineering	3	3	2	1	First Semester
د ١٥٠٠	Project	1	1	0	5	Second Semester
د ١٤٠٨	Engineering Economy	1	1	1	0	Second Semester
د ١٤٦٢	Design of Foundation B	3	3	2	0	Second Semester
د ١٤٧٢	Steel Structures Design 2	4	4	2	0	Second Semester

b- Optional :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
د ١٥٩٤	Modeling of Water Wastewater Networks- Modeling of Water Wastewater Networks	3	3	2	0	Second Semester
د ١٥٩٢	Advanced Sanitation-Advanced Sanitation	3	3	2	0	Second Semester
د ١٥٣٤	Remote Sensing-Remote Sensing	3	3	2	0	Second Semester
د ١٥٣٢	The Global Positioning System GPS	3	3	2	0	Second Semester
د ١٥٨٤	Simulation Models of Transportation and Traffic	3	3	2	0	Second Semester
د ١٥٨٢	Highway Construction Mangement and Quality Control	3	3	2	0	Second Semester

-Fourth Year / (الإحة الداخلية لكلية الهندسة ببها) / الهندسة المدنية أ / الهندسة المدنية

a- Compulsory :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
د ١٥٠٠	Project	1	1	0	1	First Semester
ج ١٤٠١	Legislation And Contracts	2	2	0	0	First Semester
د ١٤٩١	Sewerage-Sewerage	3	3	2	1	First Semester
د ١٤٥١	Design of Concrete Structures 3	5	3	2	0	First Semester
د ١٤٨١	Highway and Airport Engineering	3	3	0	2	First Semester
د ١٤٦١	Design of Foundation A	5	3	0	2	First Semester
د ١٤٤١	Design of Irrigation Works	4	4	2	0	First Semester
د ١٤٠١	Field Training	1	0	0	2	First Semester
د ١٤٠٢	Projects Mangement	3	3	2	0	Second Semester
د ١٤٦٢	Design of Foundation B	3	3	2	0	Second Semester
د ١٥٠٠	Project	1	1	0	5	Second Semester
د ١٤٠٨	Engineering Economy	1	1	1	0	Second Semester
د ١٤٧٢	Steel Structures Design 2	4	4	2	0	Second Semester

b- Optional :

code	Course Title	No.of Units	No. of hours/week			Semester
			Lect.	Excer.	Lab.	
د ١٥٦٢	Special Foundation-Special Foundation	3	3	2	0	Second Semester
د ١٥١٢	Earthquake Engineering and Structural Dynamics	3	3	2	0	Second Semester
د ١٥٥٢	Repair and Strengthening of Concrete Structures	3	3	2	0	Second Semester
د	Advanced Steel Structures	3	3	2	0	Second

١٥٧٢						Semster
١٥٢٢	New Construction Materials	3	3	2	0	Second Semster
١٥٥٤	Special Concrete Structures	3	3	2	0	Second Semster

7- Programme admission requirements

1- The students from the Egyptian secondary education or equivalent certificate with major in mathematics.

8- Regulations for progression and programme completion

Benha university|Faculty of Engineering at benha|Preparatory Year

1- The student is considered successful if he passes the examinations in all courses of his study year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark. c- The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark. d- The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade,The B.Sc. general grade for students is based on the cumulative marks obtained during all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

Benha university|Faculty of Engineering at benha|الهندسة المدنية|First Year

2- The student is considered successful if he passes the examinations in all courses of his study year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark. c- The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark.,The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade.,The B.Sc. general grade for students is based on the cumulative marks obtained during all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

Benha university|Faculty of Engineering at benha|الهندسة المدنية|Second Year

3- The student is considered successful if he passes the examinations in all courses of his study

year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark.,The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark.,The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade.,The B.Sc. general grade for students is based on the cumulative marks obtained during all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

Benha university|Faculty of Engineering at benha|الهندسة المدنية|Third Year

4- The student is considered successful if he passes the examinations in all courses of his study year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark.,The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark.,The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade.,The B.Sc. general grade for students is based on the cumulative marks obtained during all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

Benha university|Faculty of Engineering at benha|الهندسة المدنية|الهندسة المدنية|Fourth Year

5- The student is considered successful if he passes the examinations in all courses of his study year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark.,The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark.,The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade.,The B.Sc. general grade for students is based on the cumulative marks obtained during

all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

Benha university|Faculty of Engineering at benha|الهندسة المدنية|الهندسة المدنية|Fourth Year

6- The student is considered successful if he passes the examinations in all courses of his study year.,The grades of the successful student in a course and in the general grade are evaluated as follows: Distinction: from 85% of the total mark and upwards. Very good: from 75% to less than 85% of the total mark. Good: from 65% to less than 75% of the total mark. Pass: from 50% to less than 65% of the total mark., The grades of a failing student in a course are estimated in one of the following grades: Weak: from 30% to less than 50% of the total mark. Very weak: less than 30% of the total mark.,The student is promoted to the next higher level if he fails in not more than two subjects of his class or from lower classes.,The referred student has to sit the examination in the courses in which he has failed together with the students studying the same courses. The student gets a pass grade when he passes the examination successfully. In case the student was considered absent with acceptable excuse in a course, he gets the actual grade.,The B.Sc. general grade for students is based on the cumulative marks obtained during all the years of study. The students are then arranged serially according to their cumulative sum. The student is awarded an honor degree if his cumulative sum is distinction or very good provided that he gets a grade not less than very good in any study years from the second to the fifth year.

9- Assessment rules enrolled in the program

No	Method	As measured from the intended learning outcomes
1-	Written excersice	Knowledge & Understanding skills - Intellectual skills.
2-	Practical excersice	Knowledge & Understanding skills - Profesional skills - General & transferable skills.

10- Methods of assessment program

No	Evaluator	Tool	Sample
1-	1- Senior Students	Evaluation sheet	
2-	2- Alumni	Evaluation sheet & Interview	
3-	3- Stakeholders (Employers)	Evaluation sheet & Interview	
4-	4- External Evaluator	Interview	
5-	5- Others	---	

11- Matrix of knowledge and skills

-Preparatory Year (اللائحة الداخلية لكلية الهندسة ببها)

a- Compulsory :					
No.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Engineering Drawing A	P0a2,P0a4,P0a8,P0a10	P0b4,P0b12	P0c2,P0c3,P0c4,P0c11	P0d1,P0d2,P0d3,P0d7
2-	Mathematics 1 A	P0a1,P0a5	P0b1,P0b2,P0b7	P0c1	P0d7
3-	Physics A	P0a1,P0a3	P0b2	P0c1,P0c5	P0d1,P0d9
4-	Chemistry A	P0a1,P0a3	P0b1,P0b5	P0c1	P0d1,P0d9
5-	Computer Fundamentals and Programming A-Computer Fundamentals and Programming A	P0a1,P0a2,P0a5,P0a8	P0b1,P0b2,P0b3,P0b4,P0b6,P0b7,P0b8,P0b12	P0c1,P0c3,P0c5,P0c11	P0d4,P0d5,P0d6,P0d7,P0d9
6-	Technical English Language A	Course do not need specification			
7-	Production Engineering and Workshops A	P0a3,P0a6,P0a4,P0a5	P0b2,P0b5	P0c2,P0c8,P0c10	P0d1,P0d3,P0d5
8-	Mechanics A	P0a5,P0a1	P0b2,P0b3,P0b1	P0c1	P0d1
9-	Technology and Society	P0a6,P0a7,P0a9	P0b9,P0b10	P0c10	P0d2
10-	Mathematics 1 B	P0a5,P0a1	P0b2,P0b3,P0b1	P0c1	P0d1
11-	Chemistry B	P0a1,P0a3	P0b1,P0b2,P0b4	P0c1,P0c5,P0c8	P0d1
12-	Mathematics 1 B	P0a1,P0a5	P0b1,P0b2,P0b7	P0c1	P0d7
13-	Computer Fundamentals and Programming B	P0a1,P0a2,P0a5,P0a8,P0a10	P0b1,P0b2,P0b5,P0b7,P0b8,P0b12	P0c1,P0c3,P0c5,P0c10	P0d1,P0d4,P0d7,P0d9
14-	Technical English Language B	Course do not need specification			
15-	Production Engineering and Workshops B	Course do not need specification			
16-	Physics B	P0a1,P0a3	P0b2	P0c1,P0c5	P0d1,P0d9
17-	Engineering Drawing B	P0a2,P0a4,P0a8,P0a10	P0b4,P0b12	P0c2,P0c3,P0c4,P0c11	P0d1,P0d2,P0d3,P0d6
b- Optional :					

-First Year / (اللائحة الداخلية لكلية الهندسة ببنها) الهندسة المدنية

a- Compulsory :					
No.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Mathematics 2 A	Course do not need specification			
2-	Fluid Mechanics	P0a1,P0a3,P0a5,P0a8	P0b2,P0b3	P0c1,P0c2,P0c5	P0d1,P0d3
3-	Properties and Testing of Materials	a2	b1,b5	c1,c2	d1,d4
4-	Engineering Applications 1 A	a2,P0a12,P0a6,P0a7,P0a10,P0a11	P0b3,P0b4,P0b7	P0c9,c3,c5	P0d1,P0d2,P0d3,P0d4,P0d5,P0d6,P0d7,P0d8,P0d9,d1,d2,d3
5-	Computer Applications 1 A	P0a4,P0a6,P0a11	b4,b5,P0b1,P0b2,P0b6,P0b7,P0b11	P0c1,P0c5,P0c6,P0c7,P0c10,c2,c3	d1,d2,d3
6-	Electrical Engineering Technology-Electrical Engineering Technology	P0a1,P0a3,P0a4,P0a5	P0b1,P0b2,P0b3	P0c1,P0c2	P0d7
7-	Language	P0a10	P0b4	P0c12	P0d1,P0d2,P0d4,P0d5,P0d6,P0d7,P0d9
8-	Civil Drawing A	P0a3,P0a5,P0a8	P0b4,P0b7	P0c1,P0c2	P0d3,P0d9,P0d2
9-	Structural Analysis 1 A-Structural Analysis 1 A	P0a1,P0a5,P0a3,P0a4	P0b1,P0b2,P0b3,P0b11	P0c1,P0c7,P0c2,P0c3	P0d3,P0d9
10-	Mechanical Engineering Technology	P0a1,P0a4,P0a5,P0a8,P0a10,P0a11	P0b2,P0b3,P0b4,P0b5,P0b7,P0b11	P0c1,P0c5,P0c6,P0c11	P0d1,P0d2,P0d5,P0d6,P0d7
11-	Computer Applications 1 B-Computer Applications 1 B	P0a1,P0a2,P0a4,P0a5	P0b1,P0b2,P0b3,P0b7	P0c1,P0c2,P0c5	P0d2,P0d3,P0d9
12-	Structural Analysis 1 B-Structural Analysis 1 B	P0a1,P0a5,P0a3,P0a4	P0b1,P0b2,P0b3,P0b7,P0b11	P0c1,P0c7,P0c2,P0c3	P0d3,P0d6
13-	Plane Surveying		b5	c1,c2,c5	d1,d2,d3
14-	Technology of Building Materials	a2,a3	b1,b2,b3	c1,c2,c3,c4	d1,d2
15-	Engineering Applications 1 B	Course do not need specification			
16-	Mathematics 2 B	Course do not need specification			
17-	Civil Drawing B	P0a1,P0a4	P0b1,P0b2	P0c1,P0c2	P0d1,P0d3,P0d6
18-	Human Rights	Course do not need specification			
b- Optional :					

-Second Year / الهندسة المدنية (اللائحة الداخلية لكلية الهندسة بينها)

a- Compulsory :					
No .	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Topographic Surveying	P0a1,P0a2,P0a3,P0a4,P0a5,P0a6	P0b1,P0b2,P0b3,P0b4	P0c1,P0c2,P0c3,P0c4	P0d1,P0d2,P0d3
2-	Structural Analysis 2 A	a3,a2	b5		d1,d4,d2,d3
3-	Engineering Applications 2 A- Engineering Applications 2 A	P0a6,P0a7,P0a8,P0a10,P0a11	P0b3,P0b7,P0b8,P0b9,P0b10	P0c2,P0c3,P0c4,P0c8,P0c10,P0c12	P0d3,P0d5,P0d6,P0d8
4-	Mathematics 5 A	P0a1,P0a5	P0b1,P0b2,P0b7	P0c1,P0c7	P0d7
5-	Hydraulics	P0a5,P0a6,P0a11	P0b1,P0b2,P0b3,P0b4,P0b7,P0b11	P0c1,P0c2,P0c5	P0d7,P0d9
6-	Industrial Safety	a2,a3,P0a6,P0a8,P0a10,P0a12,P0a11	b1,b2,b3,b4,P0b6,P0b9,P0b12	P0c2,P0c8,P0c9,P0c10,P0c11,P0c12,c1,c4,c6	d2,d4,P0d2,P0d3,P0d5,P0d6,P0d7,P0d9,P0d1
7-	Concrete Technology	P0a1,P0a2,P0a3,P0a4,P0a5,P0a6,P0a7,P0a8	P0b1,P0b2,P0b3,P0b4,P0b5,P0b6,P0b7,P0b8	P0c1,P0c2,P0c3,P0c4	P0d1,P0d2,P0d3
8-	Computer Applications 2 A	P0a1,P0a2,P0a4,P0a6,P0a11	b3,b5,P0b3,P0b7,P0b11	c1,c2,c6,P0c1,P0c2,P0c5,P0c6,P0c7	d1,d4,P0d2,P0d6,P0d7
9-	Hydrology	P0a1,P0a5,P0a8,P0a11	P0b2,P0b3,P0b5,P0b10	P0c1,P0c2,P0c12,P0c6	P0d1,P0d3,P0d7
10-	Computer Applications - 2 B	P0a4,P0a5,P0a8,P0a11	P0b1,P0b2,P0b7,P0b8	P0c1,P0c2,P0c3,P0c4,P0c10	P0d1,P0d2,P0d3,P0d6
11-	Mathematics 5 B- - Mathematics 5 B	P0a1,P0a5	P0b1,P0b2,P0b7	P0c1,P0c7	P0d7
12-	Design of Concrete Structures 1	P0a3,P0a4,P0a5,P0a8	P0b2,P0b3,P0b4,P0b6,P0b9,P0b11	P0c4,P0c8,P0c10,P0c11	P0d3,P0d7,P0d9
13-	Engineering Applications 2 B- - Engineering Applications 2 B	P0a3,P0a4,P0a5,P0a6,P0a7,P0a10,P0a11	P0b3,P0b5,P0b7,P0b9,P0b10	P0c2,P0c3,P0c8,P0c9,P0c10,P0c11	P0d2,P0d5,P0d6,P0d7,P0d8
14-	Architectural - Engineering	Course do not need specification			
15-	Profession and Society	a3	b4,b5	c3	d1,d2,d3
16-	Structural Analysis 2 B	a2,a3	b1,b2,b5	c1,c2	d1,d3

b- Optional :

-Third Year / (الإثحة الداخلية لكلية الهندسة بينها) الهندسه المدنيه

a- Compulsory :

No.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Peronals Skills	a3	b4,b5	c2,c3,c5	d1,d2,d3
2-	Photogrammetry and Geodesy	a3	b5	c1,c2,c5	d1,d2,d3
3-	Geotechnical Engineering A-Geotechnical Engineering A	P0a3,P0a5,P0a8,P0a10,P0a12	P0b2,P0b4,P0b6,P0b7	P0c2,P0c3,P0c6,P0c9,P0c12	P0d1,P0d2,P0d5
4-	Transportation Planning Traffic Engineering	P0a5	b5	c1,c2,c4,c6	d1,d2,d3,d4
5-	Design of Concrete Structures 2 A		b3	c6	d4
6-	Design of Steel Structures 1 A	a2,a3	b1,b2,b3	c1,c2,c3	d1,d2
7-	Technical Report	P0a1,P0a2	P0b1,P0b2	P0c1	P0d1
8-	Structural Analysis 3	P0a1,P0a5	P0b1,P0b2,P0b11	P0c1,P0c6,P0c7	P0d9,P0d7
9-	Water Supply Engineering	P0a1,P0a3,P0a4,P0a5	b2,b5,P0b1,P0b2,P0b3,P0b4,P0b5,P0b7,P0b10	P0c1,P0c3,P0c5,P0c7,P0c10,c2	d1,d3,d4,P0d6,P0d7,P0d8,P0d9
10-	Pollution and Environmental-Pollution and Environmental	P0a3,P0a4,P0a5,P0a6,P0a9,P0a11,P0a12	b5,P0b1,P0b2,P0b3,P0b4,P0b5,P0b10	P0c1,P0c2,P0c10	d1,d3,P0d6,P0d7,P0d9
11-	Geotechnical Engineering B	a2,a3	b3,b1,b2	c1,c2,c3	d1,d2,d3
12-	Design of Concrete Structures 2 B	a2,a3	b3	c6	d4
13-	Highway Engineering	a3	b5	c1,c2,c4,c6	d4
14-	Design of Steel Structures 1 B	a2,a3	b1,b2,b3	c1,c2,c3	d1,d2
15-	Irrigation and Drainage Engineering	P0a1,P0a5	b2,b5,P0b7	P0c1,P0c3	d1,d3,P0d9

b- Optional :

-Fourth Year / الإثحة الداخلية لكلية الهندسة بينها) / الهندسة المدنية ب / الهندسة المدنية /

a- Compulsory :					
No.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Design of Concrete Structures 3	a2	b3,b5	c3	d1,d4
2-	Legislation And Contracts	a3	b5,b1	c5,c2	d4,d3
3-	Design of Irrigation Works	P0a4,P0a5,P0a8,P0a1	b2,b3,b5,P0b9,P0b10	P0c1,P0c3,P0c6	d1,P0d1,P0d3,P0d6
4-	Project	Course do not need specification			
5-	Field Training	Course do not need specification			
6-	Design of Foundation A	Course do not need specification			
7-	Sewerage	Course do not need specification			
8-	Highway and Airport Engineering	Course do not need specification			
9-	Project	a3	b4,b5	c1,c2,c4,c5,c6	d1,d2,d3,d4
10-	Engineering Economy	Course do not need specification			
11-	Design of Foundation B	Course do not need specification			
12-	Steel Structures Design 2	Course do not need specification			
b- Optional :					
No.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
13-	Modeling of Water Wastewater Networks- Modeling of Water Wastewater Networks	P0a1,P0a3,P0a4,P0a5,P0a6,P0a8	b2,b5,P0b1,P0b2,P0b3,P0b4,P0b5,P0b7,P0b10	P0c1,P0c3,P0c5,P0c6,P0c7,P0c10	d1,d3,d4,P0d6,P0d7,P0d8,P0d9
14-	Advanced Sanitation- Advanced Sanitation	P0a1,P0a3,P0a4,P0a5,P0a6,P0a8	b2,b5,P0b1,P0b2,P0b3,P0b4,P0b5,P0b7,P0b10	P0c1,P0c3,P0c5,P0c7,P0c10	d1,d3,d4,P0d6,P0d7,P0d8,P0d9
15-	Remote Sensing-Remote Sensing	P0a1,P0a2,P0a3,P0a5,P0a8	P0b1,P0b2,P0b7,P0b9,P0b11	P0c1,P0c2,P0c5,P0c6,P0c7,P0c11,c5	d1,d3,P0d2,P0d3,P0d9
16-	The Global Positioning System GPS	a2,a3	b1,b2,b3,b4	c1,c2,c3,c4	d1,d2,d3,d4
17-	Simulation Models of Transportation and Traffic		b1	c1	d1
18-	Highway Construction Mangement and Quality	a3	b4,b5	c1,c2,c4,c5,c6	d1,d2,d3,d4

Control				
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-Fourth Year / الهندسة المدنية أ / الهندسة المدنية (اللائحة الداخلية لكلية الهندسة بينها)

a- Compulsory :

N o.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
1-	Project	a2,a3,P0a1,P0a2	b2,b3,b4,b5	P0c2,P0c6,P0c7,P0c8	d1,P0d1,P0d2,P0d3,P0d4
2-	Legislation And Contracts	a3,a2,P0a2,P0a3	b4,b3,b5,P0b3,P0b4,P0b5	c1,c5,c6,P0c1,P0c5,P0c6	d1,d2,d3,d4,P0d1,P0d2,P0d3,P0d4
3-	Sewerage-Sewerage	P0a1,P0a3,P0a4,P0a5,P0a8,P0a6	P0b2,P0b3,P0b4,P0b5,P0b7,P0b10,b2,b5,P0b1	P0c1,P0c5,P0c3,P0c7,P0c10,c2	P0d6,P0d7,P0d9,d1,d3,d4,P0d8
4-	Design of Concrete Structures 3	Course do not need specification			
5-	Highway and Airport Engineering	a3	b5	c1,c2,c4,c6	d4
6-	Design of Foundation A	P0a4,P0a5,P0a8	b3,b5,P0b1,P0b2,P0b3,P0b4,P0b7,P0b8,P0b10,P0b12	P0c1,P0c2,P0c3,P0c4,P0c6,P0c7,P0c8,P0c9,P0c10,c1,c3	d1,d2,P0d2,P0d3,P0d4,P0d5,P0d6,P0d7,P0d9
7-	Design of Irrigation Works	Course do not need specification			
8-	Field Training	a2	b1,b2	c1,c2	d1,d2
9-	Projects Mangement	a2,a3	b4,b5	c5,c6	d4,d2,d3
10-	Design of Foundation - B	P0a4,P0a5,P0a8	b3,b5,P0b1,P0b2,P0b3,P0b4,P0b7,P0b8,P0b10,P0b11,P0b12	P0c1,P0c2,P0c3,P0c4,P0c6,P0c7,P0c8,P0c9,P0c10,c1,c3	d1,d2,d3,d4,P0d3,P0d5,P0d6,P0d9
11-	Project	Course do not need specification			
12-	Engineering Economy	a3,P0a8,P0a9	b4,b5,P0b10	c3,P0c6,P0c7	d1,d3,P0d2,P0d6
13-	Steel Structures - Design 2	a2,a3	b1,b2,b3	c1,c2,c3	d1,d2

b- Optional :

N o.	Course Title	Knowledge and Understanding	Intellectual capacity	Professional skills	General Skills
14-	Special Foundation- Special Foundation		b4,b5	c1,c2,c3	d1,d2,d3
15-	Earthquake Engineering and	P0a1,P0a5,P0a8	P0b1,P0b11,P0b2	P0c1,P0c6,P0c7	P0d9,d1

	Structural Dynamics				
16	Repair and Strengthening of Concrete Structures	a2,a3	b1,b3,b4,b5	c1,c2,c3,c5	d1,d2,d3,d4
17	Advanced Steel Structures	a2,a3	b1,b2,b3	c1,c2,c3	d1,d2
18	New Construction Materials	a2,a3	b1,b2,b3,b4	c1,c2,c3,c4	d1,d2
19	Special Concrete Structures	P0a4	P0b2	P0c2,P0c3	d1,d3

Program Coordinators :

مصطفى موسى محمد رباح

Open Description