Ministry of Higher Education and Scientific Research
Supervision and Scientific Evaluation Authority
Department of Quality Assurance and Academic Accreditation

Academic Program Description Form for Colleges and Institutes Academic Year

University: Shatt Al-Arab
College/Institute: Engineering
Scientific Department: Civil
Date of Form Completion: 01/09/2024

Signature
Name of Head of Department:

Asst. Lecturer Nabeel Najm Abdullah

Signature

Name of Scientific Assistant: Dr. Jawad Kadhim

Reviewed by:
Quality Assurance and University Performance Division
Name of Division Director: Dr. Jasem Mohsen Yasser

Signature:

الدكتور
جاسم محسن ياسر
Dr.Jasim Al-Battat

جامعة شط العرب
كلية الهندسة
العمادة
SHATT AL-ARAB UNIVERSITY

أ.م.د. احسان قاسم محمد
عميد كلية الهندسة

Dean's Approval

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

Gain complete knowledge of modeling differential equations and how to solve them and their physical and engineering applications

1. Teaching Institution	Shatt Al-Arab University -Eng. College
2. University Department/Centre	Civil Engineering Department
3. Course title/code	Reinforced concrete designs-2
4. Modes of Attendance offered	Class attendance
5. Semester/Year	2nd semester / 3th year
6. Number of hours tuition (total)	75 hrs
7. Date of production/revision of this specification	2024
8. Aims of the Course	
The course aims to provide the basic methods in the analysis and design of reinforced concrete structures.	

9· Learning Outcomes, Teaching, Learning and Assessment Method
A- Cognitive objectives A1- Apply basic knowledge in understanding the analysis and design of two-way reinforced concrete slabs. A2- Analyze and design different reinforced concrete columns with central and eccentric loading. A3- Apply methods for calculating the overlap distances of reinforcing steel and the span distance inside concrete beams when cutting a number of reinforcing bars.
B- Course specific skill objectives. B1- Apply mathematical methods approved in international codes for analysis and design purposes.

B2- Use basic knowledge to research new technologies.
B3- Use simplified methods by relying on diagrams and tables to design columns subjected to central and eccentric loads.

Teaching and Learning Methods
• Readings, self-learning, panel discussions. • Exercises and activities in the lecture. • Homework. • Directing students to some websites to benefit and develop their capabilities. • Conducting seminars to explain and analyze a specific issue and find solutions to it
Assessment methods
• Interacting within the lecture. • Homework and reports. • Short exams (quizzes). • Semester and final exams.

C. Thinking Skills
C1- Attention: Arousing the students' attention by implementing one of the applied programs on the display screen in the hall.
C2- Response: Follow up the student's interaction with the material displayed on the screen.
C3- Attention: Follow up on the interest of the student who interacted more with the presented material, by increasing this interaction by requesting other programs and applications to display.
C4 - Forming the direction: meaning that the student is sympathetic to the presentation and may have an opinion about the direction of the presented topic and defend it.
C 5- Formation of value behavior: meaning that the student reaches the top of the emotional ladder, so that he has a stable level in the lesson and does not become lazy or fidgety.

Teaching and Learning Methods
• The usual theoretical presentation method using the writing board and depending on the style (how and why) of the subject and according to the curriculum of the subject. • The theoretical presentation method using the (data show) device and depending on the method (how and why) of the subject and according to the subject curriculum. • The method of laboratory display using special devices for measuring the different properties of the substance under experiment.
Assessment methods

• Direct questions in a manner (how and why) for the subject during the theoretical and practical lecture.
• Sudden exams during the theoretical and practical lecture.
• Quarterly exams for the theoretical and practical side.
• Final exams for the theoretical and practical side.

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

D1- Develop the student's ability to perform the duties and deliver them on time

D2 - Logical and programmatic thinking to find programmatic solutions to various problems

D3 - developing the student's ability to dialogue and debate

D4 - Develop the student's ability to deal with modern technology, especially the Internet

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	4	Slabs type	Intiontrodion	The Lecture	Class work
2	4	Two way slab behavior under load	Two way slabs	The Lecture	Class work and quiz
3	4	Load slab transfer to adjacent beams	Two way slabs	The Lecture	Class work
4	4	Two way slabs Analysis using ACI code method	Two way slabs Analysis	The Lecture	Class work and quiz
5	4	Reinforced two way slabs system design	Two way slabs Design	The Lecture	Class work
6	4	Application Examples on design and analysis of two way slab	Practical Examples	The Lecture	Class work
7	4	Introduction and behavior of Reinforced concrete beam under bending	Flexural Beam Analysis And Design	The Lecture	Class work
8	4	Column under concentrated axial load	Introduction Columns	The Lecture	Class work and quiz
9	4	Column under concentrated axial load	Application Examples	The Lecture	Class work
10	4	Column under uniaxial load	Analysis and Design of Column	The Lecture	Class work
11	4	Column under uniaxial load	Application Examples	The Lecture	Class work
12	4	Column under biaxial load	Analysis and Design of Column	The Lecture	Class work and quiz
13	4	Column under biaxial load	Application Examples	The Lecture	Class work
14	4	Introduction	Development length	The Lecture	Class work
15	4	Application Examples	Development length	The Lecture	Class work

11. Infrastructure	
1- Required reading: · Books · COURSE MATERIALS · OTHER	Structural Concrete Theory and Design, By Nadim Hasson ,Akthem Aktham Al manseer,6th Edition 2015
2. Key references (sources)	1-Structural Concrete Theory and Design, By Nadim Hasson ,Akthem Aktham Al manseer,6th Edition 2015 2- Reinforced concrete Design ,7th Edition 2007 By Chu K ai Wang Charles G salmon and joe APincheire . 3- Design of Reinforced concrete Structures , 2nd Edition 2008 By Mohammed Tharawt Ghonein, Vol. 4- Design of concrete Structure ,14th Edition 2010 By Arthur H.Nilson ,Daved DerwCin and Charles W. Dolan. 5- Reinforced concrete design , 6th Edition 2009 By Edward G. Nawy 6- ACI Code 318-2019
A- Recommended books and references (scientific journals, reports ,....	
B- Electronic references, websites	Reputable websites. Libraries sites in some international universities.

12. Course development plan
Adding new subjects to the curricula within the development of the course by no more than 5%. Adding new references