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 **Signature**
Name of Head of Department:

Asst. Lecturer Nabeel Najm Abdullah **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

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

Dean's Approval

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

The model description provides a brief description of the main features of the course and the scientific outputs that the model student is expected to achieve if the student takes advantage of the learning opportunities available for the course. It should be compared with the description of the program.

1. Teaching Institution	Shatt Al-Arab University
2. University Department/Centre	Civil Engineering Department
3. Course title/code	**Traffic Engineering (CE317)**
4. Modes of Attendance offered	Class attendance
5. Semester/Year	1st semester / 3rd year
6. Number of hours tuition (total)	90 hrs.
7. Date of production/revision of this specification	2024
8. Aims of the Course	
The course aims to study the means and establish systems that achieve organization, safety and efficiency and determine them during human or goods transportation operations in all means of transportation by road, rail, air and sea navigation, by using various engineering techniques with the latest means of communication and technology, including traffic signs, traffic signals, traffic symbols and signs, all with the aim of organizing and facilitating traffic, and preserving lives, time and money.	

9· Learning Outcomes, Teaching, Learning and Assessment Method

A. **Cognitive and educational objectives**

1. Methods of calculating traffic volumes.

2. Methods of calculating vehicle speed.

3. Design of road elements.

4. Analysis of traffic accidents

B. **Course specific skill objectives**

1. Apply quantitative and numerical methods for the purpose of solving engineering problems.

2. Use basic knowledge to research new technologies.

3. Derive and evaluate information necessary to apply engineering analysis methods to unfamiliar problems.

Teaching and Learning Methods

• Scientific and research skills are developed through teaching and learning activities. Analytical and problem-solving skills are further developed through a set of problems prepared by the lecturers in small study groups and all work submitted is assessed and responded to.

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 2	**Introduction of Traffic engineering**	**Introduction**	Th. Lecture Prac. Lecture	Written exam
2	4 2	**The methods of volume counting**	**Volume subdues**	Th. Lecture Prac. Lecture	Written exam
3	4 2	**The methods of speed counting**	**Speed studies**	Th. Lecture Prac. Lecture	Written exam
4	4 2	**The method of capacity design of the roadway**	**Relationship among speed, volume and density**	Th. Lecture Prac. Lecture	Written exam

5	4 2	**Introduction to intersections types**	**intersections**	Th. Lecture Prac. Lecture	Written exam
6	4 2	**Introduction to intersection traffic control**	**Traffic control methods**	Th. Lecture Prac. Lecture	Written exam
7	4 2	**Introduction to intersection traffic control**	**Sign and marking**	Th. Lecture Prac. Lecture	Written exam
8	4 2	**The method of determining delay in traffic signalized**	**traffic signalized analysis**	Th. Lecture Prac. Lecture	Written exam
9	4 2	**The method of traffic signalized design**	**traffic signalized design - Webster method**	Th. Lecture Prac. Lecture	Written exam
10	4 2	**Determine the Sight distance**	**Stopping Sight distance**	Th. Lecture Prac. Lecture	Written exam
11	4 2	**Determine the Sight distance**	**Passing Sight distance**	Th. Lecture Prac. Lecture	Written exam
12	4 2	**Curves design**	**Horizontal curve design**	Th. Lecture Prac. Lecture	
13	4 2	**Curves design**	**Vertical curve design**	Th. Lecture Prac. Lecture	Written exam
14	4 2	**The method of parking design**	**Parking study**	Th. Lecture Prac. Lecture	Written exam
15	4 2	**Analysis of accident**	**Accident study**	Th. Lecture Prac. Lecture	Written exam

11. Infrastructure	
1- Required reading: · Books · COURSE MATERIALS · OTHER	1. مبادئ هندسة المرور، د. لمياء عبدالجليل. Traffic Engineering Third Edition by Roger P. Roess, Elena S. Prassas and William R. McShane.
2. Key references (sources)	1. Highway and Traffic Engineering in Developing Countries by Bent Thagesen. 2. Traffic and Highway Engineering by Nicholas J. Garber and Lester A. Hoel.
A- Recommended books and references (scientific journals, reports ,....	Library locations in some international universities.
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