

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

Physics: The course provides general information about physics in its many branches such as mechanics, physics, thermodynamics, electricity, magnetism, quantum mechanics and relativity. It should be noted that some laws, such as Newton's law of motion and conservation of energy

1. Teaching Institution	Shatt Al-Arab University College
2. University Department/Centre	Civil Engineering Department
3. Course title/code	Chemistry
4. Modes of Attendance offered	Class attendance
5. Semester/Year	1 st semester / 1 st year
6. Number of hours tuition (total)	45 hrs
7. Date of production/revision of this specification	2023
8. Aims of the Course	

9. Learning Outcomes, Teaching, Learning and Assessment Method

A- Knowledge and Understanding

A1- Study and know the types of cement, its chemical properties, and the equations involved in its formation.

A2- Study and knowledge of water, its chemical properties, the equations involved in its formation, and the water suitable for concrete mix.

A3- Study and know the types of lime and gypsum and the chemical properties and equations involved in its formation.

B. Subject-specific skills

B1 - Applying chemical equations for the purpose of knowing the chemical properties involved in structural engineering.

B2 - Using basic knowledge to research new chemical techniques.
B3 - Derivation and evaluation of the necessary equations for applying structural engineering analysis methods.

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	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
2	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
3	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
4	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
5	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
6	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
7	3	Identify the types of cement, manufacturing methods and properties	Cement (composition and types)	Theor. Lec.	Written/oral exam
8	3	Identify the types of lime and gypsum and manufacturing methods	Lime and gypsum	Theor. Lec.	Written/oral exam
9	3	Identify the types of lime and gypsum and manufacturing methods	Lime and gypsum	Theor. Lec.	Written/oral exam
10	3	Identify the types of lime and gypsum and manufacturing methods	Lime and gypsum	Theor. Lec.	Written/oral exam
11	3	Identify the types of lime and gypsum and manufacturing methods	Lime and gypsum	Theor. Lec.	Written/oral exam
12	3	The role of water in the hydration process	Water and its composition	Theor. Lec.	Written/oral exam
13	3	The role of water in the hydration process	Water and its composition	Theor. Lec.	Written/oral exam
14	3	The role of water in the hydration process	Water and its composition	Theor. Lec.	Written/oral exam
15	3	The role of water in the hydration process	Water and its composition	Theor. Lec.	Written/oral exam

11. Infrastructure	
1- Required reading: · Books · COURSE MATERIALS · OTHER	Concrete technology by Dr. Moaid Nory
2. Key references (sources)	Advanced concrete technology by Zongjin Li
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	