



Course Specification

(Bachelor)

Course Title: Properties of material

Course Code: APAR03

Program: Architectural Engineering Technology

Department: NOT AVAILABLE

College: Applied College

Institution: Umm Al-Qura University

Version: 1

Last Revision Date: Pick Revision Date.



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A. General information about the course:

1. Course Identification

1. Credit hours: (2)					
2. Course type					
A.	<input type="checkbox"/> University	<input type="checkbox"/> College	<input checked="" type="checkbox"/> Department	<input type="checkbox"/> Track	<input type="checkbox"/> Others
B.	<input checked="" type="checkbox"/> Required		<input type="checkbox"/> Elective		
3. Level/year at which this course is offered: (1st year 1st semester)					
4. Course General Description:					
The course will cover: Principals of materials' properties, material standards and it's use in field of building and architecture.					
5. Pre-requirements for this course (if any):					
6. Co-requisites for this course (if any):					
7. Course Main Objective(s):					
This course aims at: making students familiar with the various building materials, their properties, and their use in the field of construction and architecture.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	2	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	2x14
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		28

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify material's type, category, standard, and use in the field of construction and architecture.	K1	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam
1.2	Gain basic knowledge about the physical, mechanical, and chemical properties of the building materials.	K1	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam
2.0	Skills			
2.1	Apply appropriate materials based on its types and properties to the correct building component.	S3	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam
2.2	Implement and evaluate the materials to be used in building construction based on its appropriacy and properties.	S3	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam
3.0	Values, autonomy, and responsibility			
3.1	Work cooperatively in a small group environment.	V1	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam
3.2	Keep pace with advanced knowledge in the field of the construction and architecture.	V3	- Lecture - Whole group discussions - Presentation	- Short quiz - written exam

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to material properties and standards.	2
2.	Rock classification, and its use.	2
3.	Properties of Lime and Gypsum, and its use.	2
4.	Brick and glass properties, its standard and its use.	2
5.	Cement properties, standards, and its use.	2





6.	Concrete properties, its content, and its use.	2
7.	Concrete properties, its content, and its use.	4
8.	Concrete Aggregates.	4
9.	Reinforced concrete properties.	4
10.	Reinforced concrete quality control.	4
Total		28

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	quizzes	Every section	20%
2.	Midterm exam	7th week	20%
3.	Final exam	16	60%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Haider, Encyclopedia of modern technology in the construction of buildings, three parts, Alexandria: dar el marafa, 2010.
Supportive References	
Electronic Materials	
Other Learning Materials	Michelle M. Gauthier, Engineering Materials Handbook, ASM desk edition. Materials Park, OH, November 1995

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Class room (studio)
Technology equipment (projector, smart board, software)	software Data show
Other equipment (depending on the nature of the specialty)	



F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Questioner of course quality
Effectiveness of Students assessment	Peer reviewers	Random grading report Test Completion report for test Standards
Quality of learning resources	Students	E-Survey of sufficiency of learning resources
The extent to which CLOs have been achieved	Program leaders	Results of quizzes, mid-term and final exams- Presentation and discussion.
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Umm Al-Qura University Council
REFERENCE NO.	851141114462/190372
DATE	22/11/1446 هـ

