



Course Specification

(Bachelor)

Course Title: Finishing Materials & Technical Equipment

Course Code: APAR25

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. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (2nd year 1st semester)

4. Course General Description:

The course includes principal of technical equipment (sanitary and electricity drawing), and its uses in the field of building and architecture, the course concentrating on the sanitary systems in the buildings and how can it be constructed and the component of this systems. This course also teaching the systems of the electricity in building and preparation of the electrical drawings, and the course aims also to study building materials, finishes and final cladding for buildings, and it includes types of floors, flooring methods, interior and exterior finishes, and suspended ceilings. It also includes the different types of sections of doors and windows, methods of design and construction, manufacturing and assembly, specifications and materials used.

5. Pre-requirements for this course (if any):

6. Co-requisites for this course (if any):

7. Course Main Objective(s):

The course aims to educate the principal of sanitary and electricity drawing, and how to use different types of them in field of building construction. This course also aims teach the systems of the electricity in building and preparation of the electrical drawings. The course also aims to study the final finishes of buildings, floors, internal and external walls, roofs, windows, doors, and others.

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 Sanitary systems in buildings and finishing materials.	K1	Lectures presentation	- Short quiz - written exam
1.2	Outline basic concepts about different sanitary systems in buildings	K3	Lectures presentation	- Short quiz - written exam
1.3	Classify lighting systems in buildings, and suitable materials for the spaces.	K3	Lectures presentation	- Short quiz - written exam
2.0	Skills			
2.1	Apply knowledge of building sanitary, electricity systems, finishing materials appropriate to the discipline.	S2	Lectures presentation	- Short quiz - written exam
2.2	implement and evaluate a type of sanitary systems, finishing materials appropriate to buildings.	S4	Lectures presentation	- Short quiz - written exam
2.3	implement and evaluate a type of electricity plug in appropriate to furniture and plans.	S4	Lectures presentation	- Short quiz - written exam
2.4	implement and evaluate a type of finishing materials appropriate to spaces functions.	S4	Lectures presentation	- Short quiz - written exam
3.0	Values, autonomy, and responsibility			
3.1	Work cooperatively in a small group environment.	V1	Lectures Presentation discussions	- Short quiz - written exam
3.2	Keep pace with advanced knowledge in the field of the electrical and sanitary drawings.	V2	Lectures Presentation discussions	- Short quiz - written exam



C. Course Content

No	List of Topics	Contact Hours
1.	introduction	2
2.	sanitary drawing, One pipe system	2
3.	Two pipe systems, Cold and heat water feed systems	4
4.	Sanitary Equipment, Sanitary Experiments	4
5.	Introduction in electricity drawing, Electricity architectural plan	2
6.	Lighting systems	4
7.	Types of doors and windows, Doors and windows details	2
8.	Types of Internal Finishing Materials	2
9.	External Finishing Materials	2
10	Types of Suspended ceiling, Suspended ceiling Details	2
11	Types of Floor Finishing, Types of wall Finishing	2
Total		28

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	3,7	10%
2.	Midterm exam	8	10%
3.	Drawing sheets	weekly	20%
4.	Research report	14	10%
5.	Final term exam	16	50%

*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. Mc Guinness, William J., Stein, Benjamin, and Reynolds, John S., Mechanical and Electrical Equipment for Buildings, 10th. Edition, John Wiley & Sons, N.Y., 2005 J. Iano, E. Allen, 1992, Architectural detailing – function, constructability, aesthetics.
Supportive References	





Electronic Materials	
Other Learning Materials	Orton, Andrew, the way we build now: form, scale and technique, new york, spoon press, 2001 Instructor Lecture book

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classroom for about 40 students, with white board, computer, projector and internet.
Technology equipment (projector, smart board, software)	A white board, Computer with multi-media, a printer, internet connection, data show, Microsoft Office, AUTOCAD
Other equipment (depending on the nature of the specialty)	Printers and laptops for staff members are required.

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

