

## Faculty of Engineering & Technology

### Elective 8/ Appropriate Architecture & Technologies

#### Information :

**Course Code :** ARC E08

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Department of Architectural Engineering

#### Instructor Information :

Title	Name	Office hours
Lecturer	Marwa Abdelkader Mohamed Elgendey	1

#### Area Of Study :

Upon successful completion of the course, the student should be able to:

1. Identify the influence of Appropriate Architecture and Technologies.
2. Develop and achieve the sense of order while dealing with different materials, forms and shapes in designing process.
3. Recognize procedures and properties of appropriate architecture technologies materials and construction that give the building's form.
4. Knowledge of building nature and their sites relations, as well as their social, political. Legal and economic influences on design and construction.

#### Description :

The course focuses on Appropriate Architecture and Technologies, Introduction, Properties, Elements and Language of Appropriate Architecture, Natural materials in site, Construction Practices, Architecture form, Materials, Interior Design, Traditional and Contemporary Technologies, Local and Global Architectural projects.

#### Course outcomes :

##### a. Knowledge and Understanding: :

1 -	a1. Define environmental and human aspects in architecture.
2 -	a2. Explain concept of design architecture form and materials.
3 -	a3. Identity different architectural natures and sites.
4 -	a4. Define properties of architecture technologies, materials and construction through which building are given form.
5 -	a5. Define the language of architecture from environmental and materials.
6 -	a6. Define the natural energy resources and contemporary vernacular architecture.

##### b. Intellectual Skills: :

1 -	b1. Analyze the relationship between materials properties and structural form.
2 -	b2. Conclude the potential applications of building materials.
3 -	b3. Explain the relation between technologies and economics.

##### c. Professional and Practical Skills: :

1 -	c1. Write technical reports.
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#### **d.General and Transferable Skills: :**

1 -	d1. Work in a team effectively.
2 -	d2. Gather relevant data.

#### **Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction			
Elements of Appropriate Architecture			
Human Values, Community and Technology			
Aesthetic Values and Architectural form Characteristics.			
Relationship Between Local materials, construction system and form			
Materials, Texture and Interior Design			
Time, space , site ,Originality and Modern Science Relationship			
Architecture Language			
Traditional and Contemporary Technologies and Expressionists Architecture			
Continuity Between Local Architecture & Contemporary Architecture			

#### **Teaching And Learning Methodologies :**

Lecture
Report
Class Work

#### **Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Assignments/Studio work	40.00		
Final exam	40.00		
In Class Quizzes	10.00		
Participation	10.00		

#### **Recommended books :**

Hassan Fathy: 1973 Architecture for the poor, AUC Press  
Willaim Facey: 1997 Back To Earth, Al.Turath in Association with the Founden  
Center of Arab Studios  
HUGH Pearman: 1998 Contemporary World Architecture, Phaidon  
Kenneth Frampton: 1996 Charles Correa T&H (Thames & Hudson)  
John V.Mutlow: 1997 The Architecture of RiCARDolegorreta T&H  
Attilio Petruccioli: 2007 After Amnesia Learning from the Islamic Mediterranean urban  
Fabric, ICAR  
James May: 2010 Handmade Houses & Other Buildings, The World of Vernacular  
Architecture, T&H  
Hassan Fathy: 1988 Natural Energy & Vernacular Architecture (UNU) The United  
Nations University