FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Engineering & Technology

History & Theories of Architecture 2

Information :

Course Code :	ARC 222	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Rania Badawy Shokry Abd El Rahman	2
Lecturer	DINA EID SAID KHATER	2

Area Of Study :

The main Aims of the Course are to build the studentsô knowledge regarding:
a- FRANCIS D. K. CHING (FORM, SPACE, AND ORDER)
b- The anthropometric data and its relation to the space design
c- The architectural space definers and functional manipulation
d- The architectural space design process

Description :

The course focuses on the methods of creative thinking based on writings of "Edward De Bono". In addition, student will learn about the relation between form and space and how to define a space. Also, student will learn about circulation spaces and their characteristics.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Define the relation between human dimensions and functional space needs.
2 -	Define the different types of space definers.
3 -	Define the design process.
4 -	Differentiate between functional and circulation spaces.
5 -	Point out space characteristics according to its definers and openings.
6 -	Define the golden ratio and how it affects architecture building.
7 -	List some of the creative thinking methods.
b.Intellectual Skills: :	
1 -	Think creatively
2 -	Use critical methods to analyze architectural space
c.Professional and Practical Skills: :	
1 -	Use appropriate graphic techniques to point out space characteristics.
d.General and Transferable Skills: :	
1 -	Search for information and adopt life-long self-learning.

2 -	Refer to relevant literatures.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Architecture definition &Basics, Anthropometry (HUMAN) Measurements	1	1	
Elements of Architecture: utilization- Service - Movement (vertical-horizontal)- Lighting - construction -Ventilationï aesthetic- process	3	3	
data gathering: HUMAN (Measurements & Anthropometry) & Residential unit spaces	2	2	
Primary Elements :Point - Line -From Line to Plane -Planar Elements -Volumetric Elements	1	1	
Form Primary Shapes -Primary Solids - Regular & Irregular forms - Transformation of Form - Articulation of Form	2	2	
Form & Space :Unity of Opposite- Form Defining Space)Horizontal &Vertical Elements Defining Space	1	1	
Organization: Organization of Form & Space (Spatial - Centralized - Linear - Radial - Clustered - Grid (	1	1	
Qualities of Architectural Space-	1	1	
Ordering Principles: (Axis -Symmetry -Hierarchy - Datum -Rhythm - Repetition -Transformation)	1	1	
Ordering Principles: (Axis -Symmetry -Hierarchy - Datum -Rhythm - Repetition -Transformation)	1	1	

Teaching And Learning Methodologies :

Interactive Lecture

Research + maquette

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final exam :	40.00		
Homework assignments	15.00		
In Class Quizzes	25.00		
Participation & Assignments	10.00		
Research & Maquette	25.00		

Recommended books :

a) Crosbie, Wattson: Time Saver Standards for Architectural Design Data. 1997
b) De Bono, E., Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas, HarperCollins, 1995