University/Academy: Arab Academy for Science, Technology & Maritime Transport
Faculty/Institute: College of Engineering & Technology
Program: B.Sc. Architectural Engineering and Environmental Design

Form no. (12): **Course Specification**

1- Course Data

Course Code: **AR 224**	Course Title: **Workshop & Architectural Models**			Academic Year/Level: **2nd** year / **4th** semester
Specialization: **Architecture**	No. of Instructional Units			Prerequisite
	Credit **2**	Lecture **1**	Tutorial **3**	**None**

2- Course Aim

Architectural Models are one of the main means by which an architect invents and develops his design. They serve as a bridge between the idea and its realization and are clear and comprehensible examples of how design ideas can be skillfully translated into models. This course encompasses the definitions, analyses, concepts, development and presentation of fundamentals of architectural models. Students learn how to build abstract and architectural forms using different materials such as wood, paper, plaster ….etc.

The course aims to:

- Enhance the student with practical skills of architectural volumes and shape presentation.

3- Intended Learning Outcomes

a- Knowledge and Understanding	**Through knowledge and understanding, students will be able to:** • Define the fundamentals of architectural models. • Explain various architectural modeling techniques. • Illustrate the relation between architectural design drawings and architectural models.
b- Intellectual Skills	**Through intellectual skills, students will be able to:** • Apply models' techniques through a unique step-by-step guide to basic and advanced process modeling. • Solve model's problems.
c- Professional Skills	**Through professional and practical skills, students will be able to:** • Produce professional 3D handcrafted models.
d- General Skills	**Through general and transferable skills, students will be able to:** • Work coherently and successfully as a part of a team in projects, assignments, etc. • Adopt an open-minded approach in the appraisal of design issues, requirements and opportunities. • Listen and critically respond to the views of others. • Transfer techniques and solutions from one field of architecture to another.

4- Course Content

Week No.1	Introduction – Why do we use models? Course Contents Requirements - Tools and Materials.
Week No.2	How to use study models in architectural design. Materials and tools used in study models, making compound forms using plasticine.
Week No.3	Making models using paper 180g (simple geometric figures).
Week No.4	Making models using wood, wires, fibers …etc. (Structural models.)
Week No.5	Application on structural models.
Week No.6	Designing structures through models.(Bus station, shed, …..etc.)
Week No.7	Continuation of the previous lecture and evaluation.
Week No.8	Architectural Models1, using Photohall & Canson.
Week No.9	Architectural Models 2, using Photohall & Canson.
Week No.10	Site modeling and presentation techniques.
Week No.11	Using landscape materials in site presentation (urban planning and in architecture). Final Project Selection.
Week No.12	Continuation of the previous lecture and evaluation.
Week No.13	Evaluation of the final project.
Week No.14	Submission of final project.
Week No.15	Revision.

5- Teaching and Learning Methods

The course is delivered through a series of:
Lectures, class activities, group project work, projects.

6-Teaching and Learning Methods for Students with Special Needs

- Consulting with lecturer during office hours.
- Consulting with teaching assistant during office hours.
- Private sessions for redelivering the lecture contents.
- For handicapped accessibility, please refer to program specification.

7- Student Assessment

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	One-day projects	Intellectual and Practical skills		2,3,4	10%
2	Exam	Intellectual and Practical skills		7	20%
3	Exam	Intellectual and Practical skills		12	20%
4	Main project (Group)	All skills	13	15	20%
6	Final exam	Intellectual and Practical skills			30%
Total					100%

8- List of References:

a- Course Notes	Notes are handed to students on a weekly basis.
b- Required Books (Textbooks)	N/A
c- Recommended Books	• Norman Trudeau, *Professional Model Making* – A handbook of techniques and materials for architects and designers, Watson - Guptill publications, N.Y.P Printed in Malaysia. • Ansgar Oswald, *Architectural Models*, Dom Publishers, July 2008
d- Periodicals, Web Sites, etc.	• www.origami-club.com/en • www.origami.org.uk/origamicrane • www.architecturalmodels.co.uk