



**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: <b>AR 232</b>	Course Title: <b>History &amp; Theory of Architecture 2</b>	Academic Year/Level: <b>2<sup>nd</sup> year /3<sup>rd</sup> semester</b>
Specialization: <b>Architecture</b>	No. of Instructional Units Credit <b>3</b> Lecture <b>2</b> Tutorial <b>2</b>	Prerequisite <b>None</b>

#### 2- Course Aim

<p><b>(a) History:</b>          The course provides a synopsis architecture, art and formation of cities in the <b>Early Christian, Byzantine, Romanesque and Gothic eras</b>. the course begins at the end of the Roman era and the rise of Christianity. After this introduction, the four historical periods are presented and analysed in depth.  <b>The course aims to:</b></p> <ul style="list-style-type: none"> <li>• Provide the student with the main knowledge regarding the interrelation and influence of the built environment and the social, political, cultural and technological aspects that shape the architectural character in ancient eras.</li> <li>• Develop an understanding and ability to analyze selected examples of religious, civic and residential architecture in chronological order.</li> </ul> <p><b>(b)Theory:</b>          The course is an introduction to architectural vocabulary and building components. <b>Fundamentals of architectural design</b>, building components, walls, floors, roofs, ceiling, circulation, entrances and approaches are presented. Students start by studying different components of buildings and their relations in the design process.  <b>The course aims to:</b></p> <ul style="list-style-type: none"> <li>• Assist the student to identify and explore building components.</li> <li>• Enhance the student with practical skills that aid in the design process and building their architectural vocabulary and knowledge.</li> </ul>
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#### 3- Intended Learning Outcomes

<b>a- Knowledge and Understanding</b>	<p><b>Through knowledge and understanding, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Summarize architectural history during the classical periods (Early Christian, Byzantine, Romanesque, and Gothic).</li> <li>• List the environmental aspects that had an impact on architectural ideologies.</li> <li>• Mention the various specific factors that contribute in architectural styles .</li> <li>• Explain how construction methods, available materials and technology through these different periods define the architecture of those eras.</li> <li>• Explain the philosophy behind the different architectural characters.</li> </ul>
<b>b- Intellectual Skills</b>	<p><b>Through intellectual skills, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Analyze the architectural influencing factors and the surrounding environment.</li> <li>• Compare between the architecture of different periods.</li> <li>• Recognize the various architectural characters through the ages.</li> <li>• Analyze the society and civilization, and their reflection on architectural design, components and formation.</li> <li>• Analyze and criticize components of any building and solve their problems.</li> </ul>

<b>c- Professional Skills</b>	<b>Through professional and practical skills, students will be able to:</b> <ul style="list-style-type: none"> <li>• Collect information from different resources to support scientific thinking and opinion.</li> <li>• Prepare and compose researches and presentations.</li> <li>• Use IT skills in a relevant and creative manner for analysis and communication.</li> <li>• Use historical and theoretical literature effectively a research</li> </ul>
<b>d- General Skills</b>	<b>Through general and transferable skills, students will be able to:</b> <ul style="list-style-type: none"> <li>• Write structured reports in accordance with standard scientific guidelines.</li> <li>• Present reports in seminars, discuss findings, defend his/her ideas, and communicate effectively in writing, verbally and through drawings and models.</li> <li>• Work coherently and successfully as a part of a team.</li> <li>• Independently seek knowledge, set aims, targets, objectives and plan to meet them with a deadline (time management).</li> </ul>

#### 4- Course Content

##### (a) History:

<b>Week No.1</b>	Introduction
<b>Week No.2</b>	EARLY CHRISTIAN ARCHITECTURE: Introduction church at Dura-Europus, Typical Basilican church: Ex.:The Lateran Basilica , Old S.Peter, Rome - The Church of the Nativity, Bethlehem the church of the Holy Sepulcre, Jerusalem – S. Apollinare Nuovo, Ravenna – S. Apollinare in Classe, Ravenna – S. Clemente, – S. Stefano Rotondo, Rome.
<b>Week No.3</b>	EARLY CHRISTIAN ARCHITECTURE: Baptisteries Ex.: B. of Constantine ,Rome - B. of S. Maria Maggiore , Nocera - Mausolea: S. Constanza, Rome - Tomb of Galla Placidia - The Tomb of Theodoric , Ravenna.
<b>Week No.4</b>	EARLY CHRISTIAN ARCHITECTURE <b>Coptic Architecture: Churches</b> Ex.: Church of the Virgin, Old Cairo – Ch. of S. Sergius, Old Cairo . <b>Monastries:</b> The White Monastery, The Red Monastery, Sohag – Monastery of St <sup>e</sup> . Catherin's, Mount Sinai. <b>Syrian Architecture</b> Monastery of the Syrian, Wadi el Natrone Ex: Ch. of Qalb Lozeh- Martyrium of S. Simeon Stylites.
<b>Week No.5</b>	BYZANTINE ARCHITECTURE: Introduction, <b>Churches:</b> S.Sergius and Bacchus, S. Sophia, – S. Irene Costantinople – S. Vitale,Ravenna.
<b>Week No.6</b>	BYZANTINE Architecture: Ex.:The Holy Apostles, Constantinople - S.John. Ephesus - Hagia Sophia, Salonika. S. Mark's Venice. Civil Architecture.
<b>Week No.7</b>	Continuation of the previous lecture and evaluation.
<b>Week No.8</b>	MEDIEVAL ARCHITECTURE: In Western Europe. ROMANISQUE ARCHITECTURE: <b>Italian Romanesque:</b> Introduction, Vaulting. Ex.: S. Michel Pavia – Pisa, the Cathedral Complex – S. Nicola, Bari – Cefalu Cathedral. ROMANESQUE ARCHITECTURE: Introduction typical Romanesque Church. Constructive Principles, Vaulting Typical Monastery. Ex.: St. Gall , Switzeland.
<b>Week No.9</b>	<b>German Romansque:</b> CAROLINGIAN and OTTONIAN Architecture Ex.: Charlemagne's Palace, Palatine Chapel, Aachen Oratory, Germigny – des – Prés, Orleans –Monastries: Ex.:Plan of S. Gall - S. Michel, Hildesheim – Church of the Apostles, Cologne – Worms Cathedral.
<b>Week No.10</b>	<b>French and Spanish Romanesque:</b> Monastries: St. Martin du Canigou - Abbaye -aux-Hommes , Abbaye -aux- Dames , Caen, Cluny Abbey – Pilgrimage Churches: St <sup>e</sup> . Foy Conque – S. Sernin Toulouse - Compostella Cathedral.

**Week No.11 English Romansque:** Religious Architecture Ex.: Fountain Abbey, Peterborough Cathedral - Durham Cathedral –Domestic Architecture : Bailey and motte Castle – Dover Castle - Harlech Castle – White Castle, London.

**Week No.12** Continuation of the previous lecture and evaluation.

**Week No.13** GOTHIC ARCHITECTURE, Introduction, Typical Gothic Cath, Gothic Vaulting. **French Gothic:**The Abbey Church of S. Denis, Near Paris – Cathedral of Notre Dame, Paris- Chartres Cathedral-Reims Cathedral-Amiens Cath.- Beauvais Cathedral - La Sainte Chapelle Paris - Civil Arch.: House of Jacques Coeur at Bourges - Fortified towns : Carcassonne.

**Week No.14 English Gothic:** Typical English and French Gothic Plans - Salisbury Cathedral – Westminster Abbey – Lincoln Cath – King's College, Cambridge.

**Week No.15 Italian Gothic:** Church of S. Francesco at Assisi - Milan Cathedral – Sienna Cathedral – Civil Architecture: The Palazzo Publico, Sienna – The Doge's Palace, The Ca D'oro, Venice.

**(b) Theory:**

**Week No.1** BUILDING COMPONENTS: Functional components – Physical components.

**Week No.2** COLUMNS, WALLS and FLOORS.

**Week No.3** CEILING & ROOFS.

**Week No.4** OPENINGS: Types and Function.

**Week No.5** Openings: Doors.

**Week No.6** Openings: Windows.

**Week No.7** Continuation of the previous lecture and evaluation.

**Week No.8** CIRCULATION: Definitions, Types.

**Week No.9** Horizontal Circulation. Corridors.

**Week No.10** Vertical Circulation: Stairs.

**Week No.11** Vertical Circulation: Ramps – Elevators – Escalators.

**Week No.12** Continuation of the previous lecture and evaluation.

**Week No.13** ENTRANCES and APPROACHES: Types & Configuration.

**Week No.14** Building Entrances.

**Week No.15** The Building Approaches.

## 5- Teaching and Learning Methods

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

## 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

Students must present two notebooks which serve as a future reference. They are to be presented on an A1 sized sheet. The students are free to choose any presentation technique.

### (a) History:

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	Notebook	Knowledge and practical skills.	1	7	5 %
2	Written exam.	Knowledge and understanding.	7	7	10%
3	Research	Practical and transferable skills.	1	12	5%
4	Written exam.	Knowledge and understanding.	12	12	5%
5	Notebook	Knowledge and practical skills.	7	16	5%
6	Written exam.	Knowledge and intellectual skills .	16	16	20%
<b>Total</b>					50%

### (b) Theory:

Asses No.	Type	To assess	Start Week No.	Subm. Week No.	Weighting of Asses.
1	Written exam.	Knowledge and understanding	7	7	15%
4	Written exam.	Knowledge and understanding	12	12	10%
5	Notebook	Knowledge and practical skills	1	15	5%
6	Written exam.	Knowledge and intellectual skills	16	16	20%
<b>Total</b>					50%

## 8- List of References:

<b>a- Course Notes</b>	Notes are handed to students on a weekly basis.
<b>b- Required Books (Textbooks)</b>	<ul style="list-style-type: none"> <li>• MOFFETT Marian, FAZIO Michael, WOEHOUSE Laurence, A World History of Architecture, LAURENCE PUBLISHING, London, 2003.</li> <li>• CHING Francis D.K., Architecture Form, Space, and Order, Van Nostrand R., New York, 1996.</li> </ul>
<b>c- Recommended Books</b>	<ul style="list-style-type: none"> <li>• CAPUANI Massimo, Christian Egypt: Coptic Art and Monuments Through Two Millennia, Cairo, American University in Cairo Pr., 1999.</li> <li>• FLETCHER Sir Banister, A History of Architecture 20th edition edited by Pan Cruickshank. RIBA &amp; the University of London 1996.</li> <li>• KRAUTHEIMER Richard, Early Christian and Byzantine Architecture, Yale University Press, New Haven and London 4th ed. 1986.</li> <li>• MINNE-SEVE Vivian, Romanesque and GOTHIC France: Architecture and Sculpture, N.Y.2000.</li> <li>• PRINA Francesca &amp; DEMARTINI Elena, 1000 Years of World Architecture, Thames &amp; Hudson, London, 2006 ,</li> <li>• ROTH. Leland M. Understanding Architecture. Icon Editions. 1998.</li> <li>• WATKIN David, A History of Western Arch., 2nd Ed., Laurence King, London, 2000.</li> </ul>

	<ul style="list-style-type: none"><li>د. مصطفى عبد الله شبحه – دراسات في العمارة والفنون القبطية – مشروع المائة كتاب – مطبعة هيئة الآثار المصرية – ١٩٨٨ .</li></ul>
<b>d- Periodicals, Web Sites, etc.</b>	None