



# Course Specification

## (Bachelor)

**Course Title:** Building Construction (1)

**Course Code:** ARCH 120

**Program:** Architecture

**Department:** Architecture

**College:** Architecture and Planning

**Institution:** Qassim University

## 1. Course Identification

### Course general Description:

This course covers the basics of building materials, building elements: foundations, walls, masonry, openings and arches, simple roofs and floors, both theoretically and practically. This course is focusing on the understanding of materials processes and properties, elements functional requirements. In addition, how to design elements details achieving most practical economic solutions.

### Course Main Objective(s):

- To introduce building materials general properties.
- To introduce primary building elements in terms of functional requirement, materials and assemblies.
- To develop construction details drafting skills.
- To expose the students to construction site preparatory works, in addition to construction process and its relevance to the built environment.

## 2. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1	Identify the building materials properties	K1	Lecture, assignment Lecture, site visit	Assignment, midterm exam, Final exam
1.2	Define the primary building elements and their functional requirements, materials and assemblies	K1	Lecture, assignment Lecture, site visit	Practical Exercise, midterm exam, final exam
1.3	Classify building components: substructure & superstructure	K1		
<b>2.0</b>	<b>Skills</b>			
2.1	Modify primary elements construction details based on functional requirement and materials properties	S3	Lecture Practical Exercise, midterm, exam	Practical Exercise, exam
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1				

## 3. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Exercise 1: Basic structural elements samples (building construction hand book- stonework)	Week 2	
2.	Exercise 2: brick bonding details (plan, elevation,	Week 3	



No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
	isometric)		60%
3.	Exercise 3: model simple shade as a timber frame	Week 4	
4.	Exercise 4: CMU bonding details (plan, elevation, isometric)	Week 5	
5.	Site visited + Exercise 5: strip foundation details	Week 6	
6.	Midterm exam	Week 7	
7.	. Exercise 6: isolated footing details	Week 8	
8.	Exercise 7: Opening Arch (Draw three types of arches: equilateral arch, drop arch and segmental arch)	Week 9	
9.	Exercise 8: Slab on grade details	Week 10	
10.	Exercise 9: Walls used in building construction	Week 11	
11.	Final exam	Week 13	

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

#### 4. Learning Resources and Facilities

<b>Essential References</b>	Roy Chudley & Roger Greeno, (2014) Building construction handbook. 10th edition.
<b>Supportive References</b>	Stephen Emmitt & Christopher Gorse, (2014) Barry's advanced construction of buildings. 3rd edition. • Francis D. K. Ching, (2008) Building construction illustrated. 4th edition
<b>Electronic Materials</b>	None
<b>Other Learning Materials</b>	None

