

## COURSE SYLLABI

<b>Course number and name</b>	<b>AE 141-2 Building construction 1</b>
<b>Credits hours</b>	2 Credit hours
<b>Contact hours</b>	4 Contact hours; 1 for lecture, 2 for Tutorial and 1 for practical
<b>Instructor name</b>	Lecturer. Khalil Mohammed T Salami
<b>Textbook</b>	- Stephen Emmitt, Barry's Introduction to Construction of Buildings, 4th Ed [2018]
<b>Other supplemental materials</b>	- Saudi Digital Library through the following link: <a href="https://sdl.jazanu.edu.sa/">https://sdl.jazanu.edu.sa/</a> - Construction Building Envelope and Interior Finishes Databook: . McGraw-Hill [2001]. Sidney M. Levy. - Lecture notes
<b>Specific course information</b>	
<b>Catalog description</b>	This course aims at teaching students the different building materials and their structural and physical characteristics. Identify the different building materials and their structural and physical characteristics. Identify buildings' systems (wall bearing - structural systems) and load transfer methods in each of them. Different types of foundations (isolated foundation- strip foundation – Raft foundation – Deep foundation). Methods of building by bricks and by stone. Small span ceiling Construction system and columns distributing system (Solid slab, Flat slab - hollow block slab). Building insulation Methods (moisture - heat - sound - radiation...etc.). All the applications are carried out by preparing drawings with an appropriate scale.
<b>Prerequisite</b>	ME131-2 Engineering Drawing
<b>Required / Elective</b>	Required
<b>Specific goals for the course</b>	
<b>Course Learning Outcomes (CLO)</b>	By the end of this course, the student should be able to: CLO1: Study and understand building materials and their properties. (SO2) CLO2: Understanding the main construction systems (Load-bearing walls - Skeleton system). (SO2) CLO3: Identify the foundations and ceiling systems and methods of drawing and implementing them. (SO1) CLO4: Understanding the methods and processes of insulation for the different stages of the building. (SO1) CLO5: Participating in teamwork through group research during the semester. (SO5)

<b>Student outcomes that addressed by the course</b>	<p>The following student outcomes are addressed by the course:</p> <p>SO1: An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.</p> <p>SO2: An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.</p> <p>SO5: An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.</p>
<b>List of topics to be covered</b>	<p>Types of Foundation (Isolated, Strip &amp; Raft or continuous foundations).</p> <p>Building with Bricks.</p> <p>Building with stone.</p> <p>Small span ceiling Construction system (Solid slab, Flat slab - hollow block slab).</p> <p>Building insulation Methods (moisture - heat - sound).</p>

CLO-SO Map							
SOs CLOs	SO1	SO2	SO3	SO4	SO5	SO6	SO7
CLO 1		√					
CLO 2		√					
CLO 3	√						
CLO 4	√						
CLO 5					√		