



Department of Archtectural Engineering
College of Engineering
University of Cihan- Sulaimaniya

Subject: Building Materials
Course Book – Year 1

Lecturer's name: Mr. Diyari B. Hussein

Academic Year: 2022/2023

Course Book

1. Course name	Building Materials
2. Lecturer in charge	Diyari Burhan Hussein
3. Department/ College	Architectural Engineering
4. Time (in hours) per week	Theory: 2 Practical: 0
5. Office hours	Saturday (8:30 am – 12:30 pm)
6. Course code	
7. Teacher's academic profile	Earned the bachelors degree in civil engineering at university of Sulaimani, Sulaymaneyh/Iraq, and the master's degree in structural engineering at Budapest University of Technoly and Economicsthat, Budapest/Hungary, and individual thesis that was 'Comparative analysis of strengthening methods for RC monolithic columns'.
8. Keywords	
9. Course overview:	<p>This course covers an introductory overview of the many materials used in building construction. After receiving an introduction into fundamental principles of structural, physical and long-term performance, students learn about material and product manufacturing techniques and how they relate to mechanical and non-mechanical properties of the various materials. Common construction methods are introduced and building details are explored.</p>
10. Course objective:	<p>Students have the opportunity to experience material capacity and behaviour as well as construction methods in demonstrations and lab experiments. Moreover, material applications and detailing in structural and non-structural building components are explored. Resulting from this course, students will gain knowledge of material properties in building construction and architecture.</p>
11. Student's obligation	<p>Students are Required to attend class, do their homework and do the quizzes, they have to study and search after each class and take two exams during the semester.</p>

12. Forms of teaching

The materials are explained mainly by data show and the board is used for the calculations and explanations parts.

13. Assessment scheme

Midterm Exam	30 %
Activity, Quiz, Homeworks, and Attendance	10 %
Final theoretical exam	60 %

14. Student learning outcome:

Comparative knowledge of material properties (physical, structural, ...) for most common and advanced building materials,

- Understanding of typical and potential applications of these materials,
- Understanding of relationship between material properties and structural form,
- Ability to identify crucial problem areas in manufacture and applications of building materials,
- Understanding of importance of experimental verification of material properties

15. Course Reading List and References:

- Commercial design and drafting -The constructions of buildings. Berry -Time sever standards for architectural design data-6th edition John Hancock –
- Building construction Al Suhairy, Atef -Tasheed Al-Mabani, Dr. farouq abbas
- Building Architecture by Assist. Prof. Dr. Muhammad Hasan younis & Sherko Karim kader
- Building Construction by W.B Makay
- Building construction illustrated by Francis D.K. Ching.
- The construction of building by R.BARRY • Building construction by Dr. B.C.Punmia
- Building construction by S.KSHARMA
- Fundamentals of Building Construction (Materials & Methods) by; E. Allen & J. Iano.
- Building Design and Construction Handbook; Frederick S. Merritt & Jonathan T. Ricketts Editors.
- Building Construction Handbook by; R. Chudley & R. Greeno (2010).
- Building Construction by; Dr.BC.Punmia, Ashok Kumar Jain, and Arun Kumar Jain
- Construction technology by S.S. Ataev

16. The Topics:

Lecture No	Topic
1	Introduction to building materials, and building construction
2	Mechanical properties of materials, and materials properties
3	Physical and chemical properties of materials
4	Bonding materials, gypsum, lime, and cement
5	Bonding materials, gypsum, lime, and cement
6	Masonry units; Bricks, stone and concrete blocks
7	Masonry units; Bricks, stone and concrete blocks
8	Concrete works and its properties
9	Building units; reinforced concrete beams, slabs and columns
10	Building units; reinforced concrete beams, slabs and columns
11	Interior and exterior finishing works
12	Foundation works
13	Tiles
14	Timber, and wood construction
Final Examination	

17. Peer review

Main Lecturer incharged
Diyari Burhan Hussein

Head of The Department
Mrs. Tara Azad Rauof