

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

KING SAUD UNIVERSITY  
COLLEGE OF ARCHITECTURE AND PLANNING  
DEPARTMENT OF ARCHITECTURE & BUILDING SCIENCES  
COURSE: **ARCH 243**

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## BUILDING MATERIAL

INSTRUCTOR: DR. MANSOUR A. AL-JADEED

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WEEKS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INTRODUCTION															
PRIMARY MATERIALS															
SECONDARY MATERIALS															

### **\* OBJECTIVE:**

The main objective of this course is to have the students understand the primary and secondary materials of construction and their properties and uses in the construction of buildings.

### **\* INTRODUCTION:**

Building as a functional element in addition to the main traditional building materials in the different regions of the country will be studied in this introduction to the architectural construction subject.

### **\* BUILDING MATERIALS:**

#### 1. The Primary Materials:

- 1.1. Natural Stone.
- 1.2. Clay and clay products.
- 1.3. Timber and timber products.
- 1.4. Concrete ( types and ingredients ).
- 1.5. Metals ( steel and non-ferrous metals ).

#### 2. The Secondary Materials:

- 2.1. Gypsum, lime and their products.
- 2.2. Glass and glass products.
- 2.3. Bituminous materials.
- 2.4. Plastics and rubber.

## **GRADING CRITERIA:**

Final grade of each student will be determined according to the following criteria:

1. Rate of Attendance & Class Notes	10% *
2. Field Work Report	10%
3. Mid-Term Examination	10% **
4. Practical Exercises ( Studio Work )	30%
5. Final Examination	40%

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100%

\* NOTE: According to the regulations of King Saud University, students whose absentees from the course ( lectures and exercises ) exceed 25% will not be allowed to sit for the final examination.

\*\*Mid-Term Examination will be conducted on :

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## **\* REFERENCES:**

1. G. D. Taylor, Materials in Construction, Longman Group, UK, 1994.
2. W. J. Patton, Construction Materials, Prentice Hall, N.J. , USA, 1976.
3. C. V. Chong, Properties of Materials, Macdonald & Evans, UK, 1977.
4. R. Barry, The Construction of Buildings; Vol. 1,2,3, and 4, Granada, 1971.
5. A. Spencer etal, Materials for Construction, Reston Publishing Co.,USA, 1982.
6. D. Watson, D., Construction Materials and Processes, McGraw-Hill, USA, 1972.
7. L. Addleson, The Performance of Materials in Buildings, Butterworth, London, 1984.
8. T. Patterson, Construction Materials for Architects and Designers, Prentice-Hall, Inc., USA 1990.
9. D. Watson, D., Building Construction Principles and Practices, Macmillan Educational Ltd, London, 1995.
- 10- ارتن ليفون و زهير ساكو، انشاء المباني، جامعة بغداد كلية الهندسة، بغداد 1983.
- 11- السهيري، عاطف. إنشاء المباني، بغداد 1991 م .
- 12- حمصي، فايز. إنشاء المباني، دمشق 1998 م .