

## FACULTY OF **ENGINEERING**

DEGREE COURSE: **CIVIL AND ENVIRONMENTAL ENGINEERING**

MASTER DEGREE: **CIVIL ENGINEERING**

**SUBJECT:** CONSTRUCTION AND BUILDING MATERIALS

**LECTURER:** FRANCESCA EMMA

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### **OBJECTIVES**

The aim of the course is to provide students with the basic knowledge of construction and building materials necessary to be able to choose suitable design solutions, with particular attention to engineering material issues.

### **CONTENTS**

- 1 Stone materials
- 2 Concrete
- 3 Concrete conservation
- 4 Iron for structural applications
- 5 Bricks
- 6 Wood
- 7 Composite materials

### **ASSESSMENT**

Written exam: multiple choice and open questions

### **RECOMMENDED TEXTBOOKS**

Arthur Lyons, Materials for Architects and Builders, Routledge, 2010

ISBN-13: 978-1856175197

RECOMMENDED READINGS:

(Italian language)

G. Frigione, N. Mairo, Materiali per l'edilizia, Hoepli

I. Crivelli Visconti, G. Caprino, A. Langella, Materiali compositi, Hoepli

M. Piazza, R. Tomasi, R. Modena, Strutture in legno, Hoepli

A. Cigada, T. Pastor, Struttura e proprietà dei materiali metallici, Mc Graw Hill

For consultation:

E. Siviero, R. Cantoni, M. Forin, Durabilità delle opere in calcestruzzo, ed. Franco Angeli

E. Siviero, S. Russo, S. Mazzocato, Le armature di rinforzo per il calcestruzzo, ed. F Angeli

Magazine:  
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