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*Ministry of Education  
Higher Education and Research  
Scientist  
University Center  
Nour Bachir El Bayadh*



وزارة التعليم العالي و البحث العلمي  
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**Institute of Technology**

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**ONLINE COURSES**

Matter

# Building

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**Presented by**

Dr. BELAL Tewfik

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# Table of Contents

Table of contents.....	i
Preamble .....	I
Chapter I. General information on building-type structures .....	1
I.1. Definitions .....	1
I.2. The constituent elements of a building.....	1
I.2.1. Structural work lot.....	1
I.2.1.1. Earthworks (cutting-filling-excavations) .....	1
I.2.1.2. Reinforced concrete elements (for reinforced concrete buildings): .....	2
I.2.1.3. Structural elements (metal or wood).....	3
I.2.1.4. Masonry.....	4
I.2.1.5. Coatings.....	4
I.2.1.6. Wall, floor and platform coverings.....	5
I.2.2. Secondary work lot.....	5
I.2.2.1. Roads and Miscellaneous Networks (VRD) .....	5
I.2.2.2. Waterproofing.....	5
I.2.2.3. Sanitary plumbing .....	5
I.2.2.4. Electricity.....	5
I.2.2.5. Carpentry.....	6
I.2.2.6. Painting and glazing.....	6
I.2.2.7. Heating .....	6
Chapter II. Regulatory and technical framework .....	7
in the construction sector .....	7
II.1. Definition.....	7
II.2. General diagram of the structuring of regulatory building documents.....	7
II.2.1. Regulatory and Legislative Texts (Level 01) .....	8
II.2.2. The Regulatory Technical Reference (Levels 02 and 03).....	8
II.2.2.1. Regulatory Technical Design Documents “DTR-C” (Level 02). .....	8
II.2.2.2. Regulatory Technical Execution Documents “DTR-E” (Level 03) .....	8
II.2.2.3. The Normative Technical Reference (Level 04).....	9

Chapter III. The Building Project.....	10
III.1. Definition.....	10
III.2. The different stakeholders in the act of building.....	10
III.2.1. The project owner.....	11
III.2.2. Project manager.....	11
III.2.3. Technical construction control (CTC).....	12
III.2.4. The study laboratory.....	12
III.2.5. The implementing company.....	12
III.2.6. Subcontractors.....	13
Chapter IV. Plans used in a building project.....	15
IV.1. Definition.....	15
IV.2. Terminology and reading of building plans.....	15
IV.2.1. Geographic orientation.....	15
IV.2.2. Scales of representation.....	15
IV.2.3. Facades and gables.....	16
IV.2.4. The Cups.....	16
IV.2.4.1. Horizontal sections (Plan views).....	17
IV.2.4.2. Vertical sections.....	18
IV.2.5. Rating of plans.....	18
IV.2.5.1. Linear dimensioning.....	19
IV.2.5.2. Rating of levels.....	19
IV.3. The stages of developing plans.....	19
IV.3.1. The Sketch.....	20
IV.3.2. The Preliminary Draft.....	20
IV.3.3. Implementation project.....	21
IV.3.4 The reassembly plans.....	21
Chapter V. The Descent of Loads.....	22

V.1. Definition.....	23
V.2. Types of charges according to their nature .....	23
V.2.1. Permanent loads .....	24
V.2.2. Variable charges.....	24
V.2.2.1. Operating costs .....	26
V.2.2.2. Climatic loads .....	26
V.2.2.3. Special charges.....	26
V.2.3. Weightings .....	26
V.3. Types of loads according to the area of application .....	26
V.3.1. Surface charge.....	26
V.3.2. The linear load.....	26
V.3.3. The point (concentrated) charge .....	27
V.4. Example of load descent .....	31
Appendices .....	42
Appendix I: Permanent and operating charges according to DTR.BC2.2.....	42
Appendix II: Wind Zones in Algeria (according to the RNV 2013).....	44
Appendix III: Regulatory Technical Documents in Algeria (DTR).....	45
Appendix IV: Some examples of Algerian construction standards .....	46
Appendix V: Some common terms in construction .....	53

# Preamble

This course presents a manuscript dealing broadly with a detailed course on building in the field of civil engineering, it is intended for students in the first year of the Master's degree in Civil Engineering, Structures option (Second cycle of the LMD).

The main objective of this course is to enable second cycle students to exploit the attractive world of construction by focusing on terminology, legislation, development, methodology and design of a building project.

This handout is organized into five (05) chapters which follow in the following order:

The first chapter presents the different constituent elements of a building, to allow students to become familiar with the different parts of a building.

In the second chapter, we present the regulatory and legislative texts of the building as well as the technical regulations of design and execution, type DTR, the aim of this chapter is to make students aware of the importance of knowledge of the laws and regulations which organize the field of the building.

The third chapter shows the different stakeholders for the development of a building project in order to succeed in the project through collaboration and coordination between these stakeholders, while defining the quality and the procedure for choosing each stakeholder.

In the fourth chapter, the different plans in a building project are presented. This is an essential step for the good design and execution of a construction project.

This handout is closed by a fifth chapter which highlights the different loads applied to a building and their modes of transmission in order to size the elements of a building. At the end of chapter 5, an example of load descent is illustrated.

Several appendices are cited at the end of the handout to enable good mastery of the calculations of forces in the building and to provide more illustrations of the different points covered in this course.