(B) Course information in english

General course information:

Course title:	Building Construction	**Course code:**	CE03-UM3
Credits:	4	**Work load (hours):**	127
Course level:	Undergraduate ☑	Graduate ☐	
Course type:	Mandatory ☑	Selective ☐	
Course category:	Basic ☑	Orientation ☐	
Semester:	3rd	**Hours per week:**	4
Course objectives (capabilities pursued and learning results):			
Students will learn all the typical building design and construction procedures. They will be able to evaluate construction alternatives regarding thermal, moisture, acoustic and fire protection. They will learn how to design stairs, roofs and prepare all needed detailed plans.			
Prerequisites:			
The class of “Technical Drawing & CAD” will help students to complete the class project.			

Instructor’s data:

Name:	Vasileios Machairas
Level:	Teaching Staff
Office:	Civil Engineering Faculty University of Thessaly Pedion Areos, 38334 Volos, Greece
Tel. – email:	vmachairas@civ.uth.gr
Other tutors:	-

Specific course information:

Week No.	Course contents	Hours	
		Course attendance	Preparation
1	Introduction to building construction and technology. Building design procedure. Building construction procedure. Structural building members.	4	2
2	The building site. Sustainability, topography, soil mechanics, planting, solar radiation, passive solar design, solar shading, daylighting, wind and sound protection, views, site access and circulation, slope protection, retaining walls, site plan, legislation.	4	2
3	Building skin: walls. Properties, materials, thermal, moisture and sound protection. Doors and windows. Shading systems. Detailed planning.	4	2
4	Roof systems: design, inclination, thermal and moisture protection.	4	2
5	Stair design.	4	2
6	Mechanical and electrical systems.	4	2
7	Thermal design and protection.	4	2
8	Thermal design and protection.	4	2
9	Thermal design and protection.	4	2
10	Moisture protection	4	2
11	Sound protection	4	2
12	Wall and roof finishes.	4	2
13	Fire protection.	4	2
14	Building renovation	4	2

Additional hours for:			
Class project	**Examinations**	**Preparation for examinations**	**Educational visit**
20	3	20	

Suggested literature:
• Οικοδομική τεχνολογία - Συγγραφείς: Ζαχαριάδης Άγγελος Ι. - Εκδόσεις: University Studio Press • TOTEE-20701-2/2010

Teaching method *(select and describe if necessary -* **weight***):*		
Teaching	☑	30 %
Seminars	☑	40 %
Demonstrations	☐	
Laboratory	☐	
Exercises	☑	30 %
Visits at facilities	☐	
Other *(describe):* …….	☐	
Total		100%

Evaluation method *(select)*- **weight:**				
	written	*%*	*Oral*	*%*
Homework	☐		☐	
Class project	☑	50%	☐	
Interim examination	☐		☐	
Final examinations	☑	50%	☐	
Other *(describe):* ……	☐		☐	