



Universitat de Lleida

DEGREE CURRICULUM
BUILDING SERVICES 1

Academic year 2015-16

Subject's general information

Subject name	BUILDING SERVICES 1
Code	101406
Semester	Second semester
Typology	Troncal
ECTS credits	6
Theoretical credits	3
Practical credits	3
Office and hour of attention	To agree with the lecturer by e-mail
Department	Computer and Industrial Engineering
Modality	Presencial
Important information on data processing	Consult this link for more information.
Degree	Degree in Architectural Technology
Office and hour of attention	To agree with the lecturer by e-mail
E-mail addresses	csole@diei.udl.cat

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Learning objectives

- Be able of pre-sizing a water installation, HVAC system, sewage or electricity service, applying the theoretical fundamentals and basics of the different specialities
- Be able to imagine the installation and its distribution
- Be able to realize about errors of magnitude and if the results are logical and coherent or if the errors are because of a mathematical mistake
- Knowledge of the distribution and elements that form the different installations

Competences

Degree-specific competences

- Knowledge of the theoretical basics and basic principles applied to construction, to fluid mechanics, to hydraulics, to electricity and electromagnetism, calorimetry and hygrothermia, and to acustics.

Degree-transversal competences

- Capacity of abstraction and of critical, logical and mathematical thinking.

Subject contents

Chapter 1: WATER SUPPLY AND DISTRIBUTION

Chapter 2: CLIMATIZATION

Chapter 3: SANITATION

Chapter 4: ELECTRICITY

Methodology

The methodology of the subject is developed with:

- Master classes
- Problem classes
- Work deliveries
- Oral presentations in class

Development plan

Week	Topics
1	Subject presentation
2	T1. Water supply (theory)
2	T1. Water supply (theory-problems)
3	T1. Water supply (theory)
3	T1. Water supply (problems)
4	T1. Water supply (theory)
4	T1. Water supply (problems)
5	T1. Water supply (theory)
5	T1. Water supply (problems)
6	T2. Sanitation (theory)
6	T2. Sanitation (theory - problems)
7	T2. Sanitation (theory)
7	T2. Sanitation (problems)
8	Presentation of group work at class: water supply and sanitation
9	Mid-term exams
10	T3. Electricity (theory)
10	T3. Electricity (theory - problems)
11	T3. Electricity (theory)
11	T3. Electricity (problems)
12	T3. Electricity (theory)
12	T3. Electricity (problems)
13	T3. Electricity (theory)
13	T3. Electricity (problems)
14	T4. ICT (theory)

Week	Topics
15	Presentation of group work at class: electricity and ICT
16	Segond-term exams
17	Segond-term exams
18	Tutorization
19	Retrieval exams

Evaluation

Prova	%	Observacions
Theory Test 1 - PT1	15%	To consider PT1 to calculate the average mark, it is necessary to get at least 4 (out of 10)
Exercices Test - EX1	20%	To consider EX1 to calculate the average mark, it is necessary to get at least 4 (out of 10)
Theory Test 2 - PT2	15%	To consider PT2 to calculate the average mark, it is necessary to get at least 4 (out of 10)
Exercices Test - EX2	20%	To consider EX2 to calculate the average mark, it is necessary to get at least 4 (out of 10)
Group Work - T	30%	Each block (4 blocks) weights 5%. The presentation weights 5% and the answers to questions from students weithgs 5% too

Bibliography

Recommended bibliography

- Arizmendi Barnes, Luis Jesús (2003): "Cálculo y Normativa Básica de las Instalaciones en los edificios". Tomo I y II. Editorial EUNSA.
- Huidobro, José M. Manual de Telecomunicaciones. Ed. Ra-Ma
- Lagunas Marqués, Ángel – Instalaciones eléctricas de baja tensión en edificios de viviendas- Ed.Paraninfo – Madrid – 2003
- Martín, F.INSTALACIONES ELÉCTRICAS. Fundación Escuela de la Edificación.
- Vázquez Moreno, Javier. Herranz Aguilar, Juan Carlos. "Manual práctico de instalaciones en edificación. Tomo I. Instalaciones hidráulicas". Editorial LITEAM. 1ª edición. Año 2001. ISBN: 84-95596-05-9R
- Vázquez Moreno, Javier. Herranz Aguilar, Juan Carlos. "Manual práctico de instalaciones en edificación. Tomo II. Instalaciones energéticas". Editorial LITEAM. 1ª edición. Año 2001. ISBN: 84-95596-06-7R
- Vázquez Moreno, Javier. Herranz Aguilar, Juan Carlos. "Manual práctico de instalaciones en edificación. Tomo III. Instalaciones eléctricas." Editorial LITEAM. 1ª edición. Año 2001. ISBN: 84-95596-04-0