Course guide
290600 - BATEC14 - Basics for Technique

Last modified: 21/07/2023

Unit in charge: Vallès School of Architecture
Teaching unit: 753 - TA - Department of Architectural Technology.

Degree: DEGREE IN ARCHITECTURE STUDIES (Syllabus 2014). (Compulsory subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: ENRIQUE CORBAT DIAZ

Others: ENRIQUE CORBAT DIAZ
ISABEL VEGA AINSA

PRIOR SKILLS

No matter being first course

REQUIREMENTS

No matter being first course

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
EAB1G. An aptitude for applying graphic skills to the representation of spaces and objects (T).
EAB8G. Adequate knowledge of the principles of thermodynamics, acoustics and optics applied to architecture and urbanism.

Generical:
CE9. Adequate knowledge of the physical problems, technologies and functions of buildings so as to provide them with comfortable indoor conditions and protection from climate factors.

TEACHING METHODOLOGY

1 Weekly theoretical session.
2 face-to-face practical exercises as a team.

LEARNING OBJECTIVES OF THE SUBJECT

Know how and why a building is made, its vocabulary and its relationship with its environment.

STUDY LOAD

Type	Hours	Percentage
Hours large group	33,0	22.00
Self study	84,0	56.00
Hours medium group	33,0	22.00

Total learning time: 150 h

CONTENTS

Syllabus

Description:
Make the students aware why and with a building is made, its vocabulary and its relation with the environment.

Specific objectives:
1. Presentation of the agenda. Architecture and the human being.
2. Architecture as refuge and filter.
3. Temperature, humidity.
4. Ventilation, heat and cold.
5. Thermal properties of insulation materials. Solar capture prototype test.
6. Inertia material thermal properties.
7. Solar radiation.
8. Light and sound.
9. Active and passive comfort.
10 Exam first part. Inertia prototype test.
CROSS SURVEY
11. Construction requirements of buildings.
12. Construction materials.
13. Union with the earth.
14. Structure.
15. Horizontal partitions.
16. Vertical partitions.
17. Flat roofs.
18. Sloped roofs.
19. Facades and openings.
20. Internal communication.
21. Second part exam. Test prototype tightness.
TRANSVERSAL SETTING OUT

Full-or-part-time: 66h
Theory classes: 33h
Practical classes: 33h

GRADING SYSTEM

Theory 50%
Practice 40%
Global work 10%

EXAMINATION RULES.

2 exams in class 25% each.
Does not average one or more exams with a grade lower than 4.
2 practical exercises 20% each. Each member of the group will anonymously evaluate their classmates from 0 to 1 and the qualification obtained will multiply the mark for each exercise.
Transverse and personal assessment 10%.

BIBLIOGRAPHY

Basic:
- Elder, Albert Joseph; Vandenberg, Maritz. Construcción. Madrid: H. Blume, 1977. ISBN 847214125X.
- Allen, Edward; Swoboda, David. Cómo funciona un edificio : principios elementales. Barcelona: Gustavo Gili, 1982. ISBN 8425210895.
- Ramón, Fernando. Ropa, sudor y arquitecturas. Madrid: Blume, DL 1980. ISBN 8472141934.
- Diccionari visual de la construcció [Recurs electrònic] [on line]. 3a ed. especial. Barcelona: Generalitat de Catalunya, Departament de Política Territorial i Obres Públiques, 2001 [Consultation: 11/11/2016]. Available on: http://territori.gencat.cat/ca/01_departament/documentacio/general/terminologia_tecnica/diccionari_visual_de_la_construccio/. ISBN 8439350465.
- Benavent, Pere, 1899-1974. Així es construeix: manual de l'obrer de la construcció. Barcelona: Bosch, 1964.

RESOURCES

Hyperlink:
- Web de Bases per a la Tècnica. http://tecno.upc.edu/bt/