

30724 - Structures 2

Syllabus Information

Academic Year: 2019/20

Subject: 30724 - Structures 2

Faculty / School: 110 -

Degree: 470 - Bachelor's Degree in Architecture Studies

ECTS: 6.0

Year: 3

Semester: Second semester

Subject Type: Compulsory

Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The learning process that is designed for this subject is based on the following:

The course is divided into 15 participatory master classes taught by teachers with multimedia support to be provided in due time students. We have also organized a total of seven practical sessions of two hours each 15 sessions and other problems in the form of conferences / seminars, in which students will face difficulties similar to those of test situations.

4.2.Learning tasks

The program that the student is offered to help you achieve the expected results includes the following activities ...

Review of Linear elasticity. Introduction to M.E.F.

Reviewing bars Bernoulli and Timoshenko. Associated finite elements.

Barrasa structures) Typology. b) Lattices. Flat and three-dimensional. c) Structures arcaded.

Plates and sheets. Associated finite elements.

a) plates. Forgings.

- b) Blades.
- c) Membranes. hyperbolic paraboloid and other more sophisticated ways.
- d) Finite elements for plate and sheet
- e) Stability of structures

4.3.Syllabus

Review of Linear elasticity. Introduction to M.E.F.

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4.4.Course planning and calendar

Schedule sessions and presentation of works

The timing of the actual classes of theory and problems , as well as computer practice sessions

Each teacher will inform tutoring schedules .

4.5.Bibliography and recommended resources

- ?La estructura como arquitectura. Formas, detalles y simbolismo. Andrew Charleson. Editorial Reverte
- ?La estructura y el proyecto. David García. Escola Sert
- ?L'art des structures. Aurelio Muttoni. PPUR presses polytechniques
- ?Estructuras para arquitectos. M. Salvadori & R. Heller. Nobuko
- ?The function of form. F. Moussavi. ACTAR, Harvard Graduate School of Design
- ?La obra de ingeniería como obra de arte. Javier Manterola. LAETOLI