

Teaching guide

IDENTIFICATION DETAILS

Degree:	Architecture		
Field of Knowledge:	Engineering and Architecture		
Faculty/School:	Higher Polytechnic School		
Course:	STRUCTURES I		
Type:	Compulsory	ECTS credits:	6
Year:	3	Code:	3737
Teaching period:	Sixth semester		
Area:	Structures		
Module:	Technical Drawing		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	150		

SUBJECT DESCRIPTION

Mediante un acercamiento sencillo a los modelos estructurales

Se pretende que el alumno:

- Conozca y sepa evaluar las acciones básicas a que se encuentra sometida una estructura y como se canalizan y afectan a los elementos que la componen.
- Establezca las condiciones de estabilidad global de una estructura.

- Sepa relacionar las cargas actuantes con las solicitaciones que producen y su representación mediante diagramas.
- Aprenda las propiedades fundamentales de la sección, inercia, y de la barra, rigidez.
- Conozca las propiedades básicas de los materiales estructurales de uso predominante: Hormigón y acero.
- Relacione los conceptos de acción, solicitación, tensión y deformación.
- Tenga presente el concepto de seguridad estructural

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

General Skills

Capacity for analytical, synthetic, reflective, critical, theoretical and practical thought.

Ability to resolve problems and to take decisions.

Ability to apply procedures.

An understanding of the problems involved in structural design, construction and engineering associated with building projects.

Specific skills

Aptitude in conceiving, calculating, creating and integrating designs in buildings and urban sites and implementing building structures (T).

Adequate knowledge of solid, continuum and soil mechanics, and the plastic, elastic and resistance qualities of heavy construction materials.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
60 hours	90 hours