

Nazwa w jęz. angielskim: Masonry & Timber Structures III
Nazwa w języku polskim: Konstrukcje murowe i drewniane III

Dane dotyczące zajęć:
Information on course:

Jednostka oferująca: Wydział Budownictwa // dr hab. inż. Marcin Kozłowski, prof. PŚ
Course offered by: Faculty of Civil Engineering // dr hab. inż. Marcin Kozłowski, prof. PŚ

Język wykładowy:
angielski
Language: English
English
Strona WWW: Course homepage:
Skrócony opis:
Short description:
The main course objective is to acquaint students with the principles of the structural design of selected timber structures. Moreover, the course aims at providing students with practical knowledge regarding code requirements, construction and analytical calculations of connections in timber structures. The course provides design examples of dowel connections using nails, bolts and joining plates made of different materials.
Opis:
Description:
LECTURE: 8 hours Introduction to the design of timber structures, code requirements, static schemes, the specifics of the material. Timber structural systems - the formulation, design and calculation. Connections in timber structures, dimensioning of the connections. EXERCISE: 2 hours Discussion on the timber connections. The project is discussed during the exercise. PROJECT: 5 hours The project includes the design of selected types of connections in timber structures. A simplified construction drawing of the connection is carried out as a part of the project. Number of ECTS credits: 1
Literatura:
Bibliography:
[1] Kermani A., „Structural Timber Design”, Wiley-Blackwell, London, 1999 [2] “Design of timber structures Volume 1. Structural aspects of timber construction”, Swedish Wood, 2011 [3] “Design of timber structures Volume 2. Rules and formulas according to Eurocode 5 and EKS 9”, Swedish Wood, 2011 [4] “Design of timber structures Volume 3. 14 calculated practical examples with solutions”, Swedish Wood, 2011 Supplementary materials: [5] EN 1990 Eurocode: Basis of structural design [6] EN 1991 Eurocode 1: Actions on structures [7] EN 1995 Eurocode 5: Design of timber structures
Efekty uczenia się:
Learning outcomes:

KNOWLEDGE

(1) Student knows the principles of design and dimensioning of selected types of timber structures - [directional effect K1A_W05]

(2) Student knows the codes and recommendations related to the design and dimensioning of the connections in timber structures - [directional effect K1A_W06]

SKILLS

(1) Student is able to classify and calculate the loads acting on the building structures - [directional effect K1A_U02]

(2) Student is able to choose the proper method of structural analysis - [directional effect K1A_U04]

Metody i kryteria oceniania:**Assessment methods and assessment criteria:****CONDITIONS FOR PASSING THE COURSE:**

- 1) active and registered attendance at classes,
- 2) passing the colloquium including lectures,
- 3) preparation, delivery and defense of the project,

FINAL ASSESSMENT:

50% (written test) + 50% (project)

Przynależność do grup przedmiotów w cyklach:**Element of course groups in various terms:**

Opis grupy przedmiotów Course group description	Cykl pocz. First term	Cykl kon. Last term
przedmioty obieralne studia stacjonarne stopień studiów – dowolny kierunek studiów – dowolny, semestr dowolny elective courses full-time degree - any field of study - any semester - any	2024/2025	