

Nazwa w języku polskim: Konstrukcje stalowe IIa (kurs podstawowy)

Nazwa w jęz. angielskim: Steel Structures IIa (basic)

Dane dotyczące zajęć:

Information on course:

Jednostka oferująca: Wydział Budownictwa

Course offered by: Faculty of Civil Engineering

Język wykładowy:
angielski
Language:
English
Strona WWW:
Course homepage:
https://platforma.polsl.pl/rb/course/view.php?id=476
Skrócony opis:
Short description:
The aim of the course is to provide students with the basic knowledge and practical skills necessary in the design of steel structures, particularly industrial low-rise buildings with and without overhead cranes.
Opis:
Description:
Lecture
LECTURE: 15h
Industrial steel halls, Bracing, Purlins, Trusses, Truss Joints, Build-up members, Basics of Global Analysis of Steel Structures
CLASSES: 6h
Presentation of the scope and details of the steel hall design: purlin and roof truss.
PROJECT: 12h
Design of single-storey, single-bay industrial hall: preliminary design drawing in scale 1:100, static-strength calculations of the purlin nad roof truss.
• full-time studies: 33h
Number of ECTS credits: 4
Literatura:
Bibliography:
[1] Handbook of Structural Steelwork. Eurocode Edition. BCSA Publication No. 55/13.
[2] ECCS: Design of Joints in Steel Structures, Ernst &Son, 2017.
[3] M.E. Brettell, D.G. Brown: Steel Building Design: Concise Eurocodes In accordance with Eurocodes and the UK National Annexes. Steel Construction Institute SCI P362.
[4] EN 1993-1-1 Eurocode 3: Design of steel structures. Part 1-1: General rules and rules for buildings.
[5] EN 1993-1-5:2003 Eurocode 3: Design of Steel Structures. Part 1-5: Plated structural elements.
[6] EN 1993-1-8 Eurocode 3: Design of Steel Structures. Part 1-8: Design of Joints.
Efekty uczenia się:
Learning outcomes:
KNOWLEDGE
(1) Student knows the principles of analysis and structural design of steel industrial halls - [K1A_W05]
(2) Student knows the standards and guidelines for the design of steel halls and their components - [K1A_W06]
SKILLS

(3) Student can describe basic mechanisms of load transfer and perform the combination of actions for steel halls - [K1A_U02]
(4) Student can design basic structural members of steel hall: purlins, trusses, built-up columns - [K1A_U04]
(5) Student can identify most important factors and perform the global analysis of steel hall - [K1A_U04]
Metody i kryteria oceniania:
Assessment methods and assessment criteria:
CONDITIONS FOR PASSING THE COURSE: 1) active participation in the lecture, classes and project, 2) passing the colloquiums, 3) correct execution and defense of the project, FINAL GRADE: 60% (colloquium) + 40% (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		