

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

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

Dane dotyczące zajęć:

Information on course:

Jednostka oferująca: Wydział Budownictwa // dr inż. Szymon Swierczyna

Course offered by: Faculty of Civil Engineering // dr inż. Szymon Swierczyna

Język wykładowy:
angielski
Language:
English
Strona WWW:
Course homepage:
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. Brettle, 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) Studen 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) Studen 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	2024/2025	