

Stainless Steel and Aluminium Structures

Subject area: Civil Engineering/Architecture

University: CTU
Level: BA4, MA1, MA2, MA all years
Teaching mode: completely online, at specific time
Instructor(s): Michal Jandera

Short description

The course focuses on aluminium and stainless steel load-bearing structures and the key differences in comparison to steel structures.

Full description

The course covers two parts, design of aluminium and stainless steel structures. The first part covers evolution of stainless steel materials/structures and examples of realized structures. Stainless steels suitable for structures are described in a detail, including their properties. Dissimilarities in design of members with respect to low-carbon steels is described for both ultimate and serviceability limit states. In the second part of the subject, the same topics are covered for aluminium structures. Welding and heat-affected zones are discussed in detail in terms of weld design, section design and local welds effect in members.

Learning outcomes

Knowledge of structural design of stainless steel and aluminium alloy load-bearing structures.

Recommended in particular for students of the following study programmes

Civil Engineering, Structural Engineering

General information

Contact hours per week: 2
Total workload: 50 (in student hours for the whole course)
ECTS credits: 2
Language: English

Course start date:	20 February 2023
Course end date:	28 May 2023
Add. info about start date:	Start date course refers to start of the semester at CTU. Time schedule is available 1-2 weeks before the semester starts.
Weekly teaching day/time:	
Time zone:	CET (Denmark, Germany, France, Netherlands, Switzerland, Czech Republic)
Further information:	
Prerequisites:	Basic knowledge of steel structures design (member and connection design) is required.
Activities and methods:	Lectures, Seminars
Presence on campus:	

Final examination

Form:	oral
Date:	
Location/format:	online
Re-sit possibility:	
Transcript available:	end of semester
Add. info/requirements:	

Registration

To register for this course, follow the registration requirements of your **home university** as specified here: www.euroteq.eu/courses-registration.

Administration

Number of places:	25
Minimum participants:	1
Internal course code:	134SALS
Contact:	michal.jandera@fsv.cvut.cz

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