Poznan University of Technology
Faculty of Civil and Environmental Engineering

European Credit Transfer System
Course description card

Course title: **Steel structures I**	*Code:* ErasmusFCEE-EM
Field of study: Civil Engineering	*Year / semester*: I
Specjality:	*Course:* compulsory
Hours / week: Lectures: 1 Tutorials: 0 Laboratories: 0,5 Project / Seminars: 0	*Number of credits:* 6

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Status of the course in the study program:
Core course for students of Civil Engineering

Course description:
The course gives the basics of the technology and production of steel, steel profiles product, mechanical and technological properties. General methods of steel connections design. Basic methods of design and dimensioning of steel construction elements. Ultimate and serviceability limit state of compressed, tensioned and elements in bending according the EC3.

Teaching outcomes:
The main aim of the course is to prepare the student for designing and dimensioning of steel construction elements**.**

Prerequisites:
Basic knowledge of structural mechanic and strength of material.

Teaching method:
Lectures illustrated by slides. Exercise design of steel floor construction elements. Presentation of construction solution and dimensioning rules.

Assessment method:
Grade of project of steel floor construction with defense.

Bibliography:

1. Steel Buildings: Analysis and Design, 4th Edition, Stanley W. Crawley, Robert M. Dillon, John Wiley & Sons , 2008
2. Design of Steel Structures, 1st Edition, Louis F. Geschwindner, John Wiley & Sons , 2008
3. Structural Stability of Steel: Concepts and Applications for Structural Engineers, Theodore V. Galambos, Andrea E. Surovek, John Wiley & Sons , 2008
4. The Behaviour and Design of Steel Structures to EC3.S, Trahair, M.A. Bradford, D.A. Nethercot, L. Gardner , Balkema, 2007
5. Structural Design of Steelwork to EN 1993 and EN 1994, , Lawrence Martin, Elsevier, 2007
6. Steel Structures: Practical Design Studies, Hassan A Nageim, T.J. MacGinley, Balkema, 2005