COURSE DESCRIPTION CARD

<table>
<tr><td colspan="11">Faculty of Civil Engineering and Environmental Sciences</td></tr>
<tr><td colspan="3">Field of study</td><td colspan="5"></td><td colspan="2">Degree level and programme type</td><td></td></tr>
<tr><td colspan="3">Specialization/ diploma path</td><td colspan="5"></td><td colspan="2">Study profile</td><td>Academic profile</td></tr>
<tr><td colspan="3" rowspan="2">Course name</td><td colspan="5" rowspan="2">Light gauge framing in steel buildings according to Eurocode 3</td><td colspan="2">Course code</td><td>IS-FCEE-00235S</td></tr>
<tr><td colspan="2">Course type</td><td>Erasmus</td></tr>
<tr><td colspan="3" rowspan="2">Forms and number of hours of tuition</td><td>L</td><td>C</td><td>LC</td><td>P</td><td>SW</td><td>FW</td><td>S</td><td colspan="2">Semester</td><td>summer</td></tr>
<tr><td>30</td><td></td><td></td><td>30</td><td></td><td></td><td></td><td colspan="2">No. of ECTS credits</td><td>5</td></tr>
<tr><td colspan="3">Entry requirements</td><td colspan="8">Strength of materials, Structural mechanics, General construction</td></tr>
<tr><td colspan="3">Course objectives</td><td colspan="8">The aim of education is to get the students theoretical knowledge of the design of Light gauge Steel Structures according to Eurocode 3</td></tr>
<tr><td colspan="3">Course content</td><td colspan="8">Cold-formed Steel Sections; Types of Cold-formed Steel Sections Individual structural framing members; Panels and decks; Manufacturing; Roll forming; Folding, Press braking. Peculiar characteristics of cold-formed sections, Problems of Cold-formed Steel Design, Buckling Strength of Cold-formed Members, Torsional rigidity, Web Crippling
Connections - Bolting, Blind rivets, Self-drilling screws, Self-tapping screws, Fired pins, Arc-welding; Ductility and plastic design; Design assisted by testing; Corrosion resistance; Metal coating, Paint coating; Fire resistance</td></tr>
<tr><td colspan="3">Teaching methods</td><td colspan="8">problem lecture, case study, project preparation</td></tr>
<tr><td colspan="3">Assessment method</td><td colspan="8">oral exam, project assessment</td></tr>
<tr><td colspan="2">Symbol of learning outcome</td><td colspan="7">Learning outcomes</td><td>Reference to the learning outcomes for the field of study</td></tr>
<tr><td colspan="2">LO1</td><td colspan="7">Student has knowledge regarding the light gauge steel structures</td><td>K_W05</td></tr>
<tr><td colspan="2">LO2</td><td colspan="7">Student knows the rules and procedures related to the design of light steel structures</td><td>K_W13</td></tr>
<tr><td colspan="2">LO3</td><td colspan="7">Student is able to identify risks to the steel constructions and use effective tools to protect it</td><td>K_U08</td></tr>
<tr><td colspan="2">LO4</td><td colspan="7">Student can make use of appropriate tools and procedures relating to steel buildings</td><td>K_U12</td></tr>
<tr><td colspan="2">LO5</td><td colspan="7">Student is aware of the importance and understanding of the non-technical aspects and effects of engineering activities, including its impact on the civil engineering and the associated responsibility for decisions</td><td>K_K02</td></tr>
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LO6	Student is able to contribute to the preparation of building projects, taking into account resistance and serviceability of the building elements,	K_K05
Symbol of learning outcome	**Methods of assessing the learning outcomes**	**Type of tuition during which the outcome is assessed**
LO1	oral exam, project assessment	L, P
LO2	oral exam, project assessment	L, P
LO3	project assessment	P
LO4	project assessment	P
LO5	project assessment	P
LO6	project assessment	P
Student workload (in hours)		**No. of hours**
Calculation	lecture attendance	30
	participation in classes, laboratory classes, etc.	30
	preparation for classes	60
	participation in student-teacher sessions related to the classes	1
	preparation for and participation in exams	10
	TOTAL:	**131**

Quantitative indicators	**HOURS**	**No. of ECTS credits**
Student workload – activities that require direct teacher participation	60	2,4
Student workload – practical activities	101	4,0

Basic references	1. Design of Cold-formed Steel Structures: Eurocode 3: Design of Steel Structures. Part 1-3 Design of cold-formed Steel Structures; ECCS - European Convention for Constructional Steelwork (Editor), October 2012 **2.** Eurocode 3: Design of steel structures - Part 1-3: Design of cold-formed Steel Structures **3.** Design of steel structures - Part 1-8: Design of joints
Supplementary references	Construction and building materials (Journal), ISSN: 0950-0618, Elsevier Publications.
Organisational unit conducting the course	**Department of Building Structures** / **Date of issuing the programme**
Author of the programme	**PhD. Eng. Miroslaw Broniewicz, Assoc. Professor** / **5.02.2022**

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar