<table>
<tr><td colspan="5">Level: bachelor</td></tr>
<tr><td colspan="5">Course title: Foundations of Geometry 1 (M4-10)</td></tr>
<tr><td colspan="5">Status: obligatory</td></tr>
<tr><td colspan="5">ECTS: 8</td></tr>
<tr><td colspan="5">Requirements: none</td></tr>
<tr><td colspan="5">Learning objectives
Axiomatic approach to absolute and Euclidean geometry. Introducing the basic geometric figures in Euclidean plane and space. Acquiring the basic proof techniques.</td></tr>
<tr><td colspan="5">Learning outcomes
Students are expected to be able to apply the axiomatic system in proving standard theorems and to solve standard geometric problems in the plane and in the space.</td></tr>
<tr><td colspan="5">Syllabus
Theoretical instruction
Hilbert axiomatic system of absolute and Euclidean geometry. Basic geometric figures in the plane and in the space. Congruence and similarity transformations.
Practical instruction
Proving various assertions on lines, angles, triangles, quadrilaterals, cycles, planes, tetrahedrons, spheres etc. Applications of congruence and similarity transformations.</td></tr>
<tr><td colspan="4">Weekly teaching load</td><td>Other: 0</td></tr>
<tr><td>Lectures: 4</td><td>Exercises: 4</td><td>Other forms of teaching: 0</td><td>Student research: 0</td><td></td></tr>
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