Study program: Mechanical Engineering
Type and level of studies: Master academic studies

Course unit: Theory of Elasticity
Teacher in charge: Ivan M. Miletić
Language of instruction: English

ECTS: 6
Prerequisites: None
Semester: Winter Semester

Course unit objective
Enabling student for solving problems from the area of the elasticity theory and for applying the acquired knowledge in practice in solving problems of the non-circular cross-sections torsion and basic problems from the plates and from the shell theory.

Learning outcomes of Course unit
After passing the final exam from this course students will:
- Have a knowledge of the higher theoretical notions from the area of stresses, strains and planar problems;
- Be able to determine the sizes and load carrying capacity of the non-circular columns loaded in torsion;
- Know the principles of the calculations of plates and shells.

Course unit contents

Theoretical classes

Practical classes
Problems solving, homeworks, tests and colloquia. (Same areas as for theoretical lecturing)

Literature
Timoshenko, S, and J.N. Goodier, "The Theory of Elasticity", McGRAW-HILL BOOK COMPANY, Inc, 1951,
Starovoitov, E., and F.B. Naghiyev, "Foundations of the Theory of Elasticity, Plasticity, and Viscoelasticity", CRC PRESS, 2012,

Number of active teaching hours 75

Other classes
Lectures: 15
Practice: 15
Other forms of classes: mentoring system 20
Independent work: 25

Teaching methods
Lecturing, Practical work, consultations

Examination methods (maximum 100 points)

Exam prerequisites | No. of points: | Final exam | No. of points:
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Student’s activity during lectures | 5 | oral examination | 30
practical classes/tests | 20 | written examination | |
Seminars/homework | 45 | |
Project | |
Other | |

Grading system

<table>
<thead>
<tr>
<th>Grade</th>
<th>No. of points</th>
<th>Description</th>
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<tbody>
<tr>
<td>10</td>
<td>91-100</td>
<td>Excellent</td>
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<tr>
<td>9</td>
<td>81-90</td>
<td>Exceptionally good</td>
</tr>
<tr>
<td>8</td>
<td>71-80</td>
<td>Very good</td>
</tr>
<tr>
<td>7</td>
<td>61-70</td>
<td>Good</td>
</tr>
<tr>
<td>6</td>
<td>51-60</td>
<td>Passing</td>
</tr>
<tr>
<td>5</td>
<td>&lt; 51</td>
<td>Failing</td>
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