

# COURSE GUIDE – short form

Academic year 2014-2015

Course name <sup>1</sup>	<b>IDENTIFICATION OF MECHANICAL AND ELASTIC CHARACTERISTICS</b>					Course code	MDET.DI. DS.209		
Course type <sup>2</sup>	DS	Category <sup>3</sup>	DI	Year of study	II	Semester	II	Number of credit points	

Faculty	Mechanical Engineering	Number of teaching and learning hours <sup>4</sup>					
Field	Mechanical Engineering	Total	L	T	LB	P	IS
Specialization	Diagnosis and Technical Expertise in Mechanical Engineering	154	28		14		112

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	Strength of Materials, Materials Mechanics
	Recommended	Materials Science and technology, Physics

General objective <sup>6</sup>	Depth knowledge of the mechanical and elastic properties of common materials and advanced materials are available to master student. Methods and techniques for research of the materials structures and properties are presented.
Specific objectives <sup>7</sup>	<ul style="list-style-type: none"> <li>Multi-criteria evaluation and optimal selection of materials used in mechanical engineering</li> </ul>
Course description <sup>8</sup>	1. Characteristics of materials needed in the design. The choice of materials. 2. Mechanical and elastic properties of metallic materials experimental determination. 3. Influence of the structure, processes and environmental conditions on the mechanical characteristics of the materials. 4. Mechanical properties of nonmetallic materials experimental determination. 5. Mechanical properties of structures experimental determination.

Assessment			Schedule <sup>9</sup>	Percentage of the final grade (minimum grade) <sup>10</sup>
Continuous assessment	Class tests along the semester			%
	Activity during laboratory works		weeks 1-14	20% (5)
	Assignments		weeks 4, 8, 12	30% (5)
Final assessment	Final assessment form <sup>11</sup>	Exam	session	50% (5)
	Examination procedures and conditions: Oral presentation case and thematic development, followed by questions. Students have access to specialized work that they had developed during the semester. Duration: approx. 15 min.			

Course organizer	<b>S.I.dr.ing. Bogdan LEIȚOIU</b>	
Teaching assistants	<b>S.I.dr.ing. Bogdan LEIȚOIU</b>	

<sup>1</sup> Course name from the curriculum

<sup>2</sup> DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

<sup>3</sup> DI – imposed, DO – optional, DL – facultative (from the curriculum)

<sup>4</sup> Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

<sup>5</sup> According to 4.1 – Pre-requisites - from the Course guide – extended form

<sup>6</sup> According to 7.1 from the Course guide – extended form

<sup>7</sup> According to 7.2 from the Course guide – extended form

<sup>8</sup> Short description of the course, according to point 8 from the Course guide – extended form

<sup>9</sup> For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

<sup>10</sup> A minimum grade might be imposed for some assessment stages

<sup>11</sup> Exam or colloquium