

Blended Intensive Programme: 3D Printing Technologies and Material Properties Research

Information for partner universities

BIP number		2025-1-LT01-KA131-HED-000317966-6
Timetable & place	Virtual part	<p>Duration: (12 hr) 28 September – 2 October 2026 (remote)</p> <p>Format:</p> <ul style="list-style-type: none"> • Online lectures and introductory sessions delivered via MS Teams and Moodle. <p>Content:</p> <ul style="list-style-type: none"> • Introduction to 3D design principles (2 hr) Valentinas • 3D modeling fundamentals exercises (2 hr) Valnetinas • Overview of 3D printing technologies (FDM, SLA, SLS) (4 hr) Jolanta, Aleksandra, Artūras • Safety guidelines and preparation for laboratory work (4 hr) Jolanta, Marius
	Physical part	<p>Duration: (18 hr) 12 October – 16 October 2026 (in person)</p> <p>Physical mobility duration: 5 days Location: Klaipėda University, Faculty of Marine Technology and Natural Sciences, Lithuania</p> <p>Activities:</p> <ul style="list-style-type: none"> • Practical laboratory sessions (4 hr) Valentinas • Hands-on work with FDM, SLA, SLS 3D printers (6 hr) Deividas, Aleksandra • Mechanical properties testing of printed materials (4 hr) Deividas • Data analysis workshops (2 hr) Jolanta • Final examination and assessment of laboratory work (2 hr)
Description	General description (content)	<p>The International Blended Intensive Programme (BIP) offers students a hands-on introduction to cutting-edge 3D design and printing technologies. Participants will gain practical experience using SolidWorks, design their own 3D models, and explore a range of advanced 3D printing techniques, including FDM, SLA, and SLS. The programme combines digital design with experimental learning, allowing students to perform laboratory testing, investigate the mechanical properties of printed materials, and present their</p>

		<p>findings in research reports. This BIP provides a unique opportunity to develop technical skills, apply theory in practice, and collaborate in an international learning environment.</p>
	<p>Marketing text</p>	<p>CALL FOR STUDENTS: BIP COURSE „3D PRINTING TECHNOLOGIES AND MATERIAL PROPERTIES RESEARCH“ Are you interested in innovative technologies, engineering, and digital design? Would you like to gain hands-on experience working with modern 3D design and printing equipment? Join the international Blended Intensive Programme (BIP) “3D Printing Technologies and Material Properties Research” and become part of the future of engineering! During the course, you will:</p> <ul style="list-style-type: none"> • Explore modern 3D design technologies and work with SolidWorks software; • Create 3D models of mechanical components and prepare them for printing; • Learn to use FDM, SLA, and SLS 3D printing technologies; • Print your own designs using advanced 3D printers; • Conduct laboratory tests to investigate the mechanical properties of materials; • Analyze experimental results and prepare a research report. <p>Why participate?</p> <ul style="list-style-type: none"> • Gain practical engineering and technical skills; • Enhance your digital design competencies; • Learn modern material testing and research methods; • Work in an international and multicultural team; • Earn 3 ECTS credits upon successful completion. <p>Apply now and take your engineering skills to the next level!</p>
	<p>Objectives</p>	<ol style="list-style-type: none"> 1. To provide students with knowledge of various 3D design and printing technologies. 2. To develop the ability to practically apply engineering design and prototyping methods. 3. To introduce methods for testing and analyzing the mechanical properties of materials. 4. To promote international cooperation and interdisciplinary learning.
	<p>Learning Outcomes</p>	<p>Upon successful completion of the course, students will be able to:</p> <ol style="list-style-type: none"> 1. Create 3D models of mechanical components using SolidWorks. 2. Select appropriate 3D printing technologies for different engineering tasks. 3. Operate FDM, SLA, and SLS 3D printing equipment.

	<p>Methodology & mentoring</p>	<ol style="list-style-type: none"> 4. Perform laboratory tests of mechanical material properties. 5. Analyze experimental results and prepare technical reports. 6. Work effectively in an international project team. <ol style="list-style-type: none"> 1. Virtual introductory lectures prior to the physical mobility phase. 2. Hands-on laboratory sessions using modern 3D printing equipment. 3. Seminars, discussions, and problem-based learning activities. 4. Continuous mentoring provided throughout the course, both remotely and in person. 5. Final examination and assessment of laboratory work.
<p>Language of classes</p>	<p>English</p>	
<p>Coordinating & Host HEI</p>	<p>Klaipeda University, Lithuania</p>	
<p>Contact to coordinating HEI</p>	<p>Valentinas Kartašovas</p>	
<p>Number of ECTS</p>	<p>3 ECTS credits</p>	
<p>Target audience</p>	<p>Bachelor-level students in Mechanical Engineering, Materials Engineering, Manufacturing Engineering, Mechatronics, or related engineering fields.</p>	
<p>Minimum number of students</p>	<p>15</p>	
<p>Maximum number of students accepted</p>	<p>18</p>	
<p>Requirements</p>	<p>English level B2</p>	
<p>Selection process</p>	<p>Internal – students apply internally at their universities and their own university accepts/rejects them.</p>	
<p>Nomination information and deadline</p>	<p>Partner institutions are kindly requested to submit student nominations by 28 August 2026 via email to: gintvile.simkoniene@ku.lt</p> <p>Please include the following information for each nominated student:</p> <ul style="list-style-type: none"> • Students' name • Students' last name • Students' email address <p>Students will be required to complete the upload the following by 28 August 2026:</p> <p>- Copy of Passport or Identity Card</p>	



- Insurance(s) covering*: (all needed in English or Spanish)

- European Health Insurance card
- Travel Insurance* (including damage or loss of luggage)
- Accident and serious illnesses* (including permanent or temporary incapacity)
- Personal Liability Insurance¹
- Repatriation insurance
- A Passport sized picture (for your student's card)
-

¹The Personal Liability Insurance is a personal insurance that covers the possible damages caused by the student to a third person or objects.