

## Undergraduate study Metallurgy

COURSE DESCRIPTION – GENERAL INFORMATION			
<b>Name of the course</b>	Materials Testing	<b>Credit value (ECTS)</b>	5
<b>Course teachers</b>	Assoc. Prof. Ivan Jandrić, PhD	<b>Type of instruction (number of hours L+S+E)</b>	30+0+30
COURSE DESCRIPTION			
<p>The Materials Testing course provides students with theoretical and practical knowledge of testing methods for metallic materials, including mechanical testing and modern non-destructive testing (NDT) techniques. Students are introduced to the process of selecting an appropriate test method, preparing specimens, and analyzing and comparing the results of static and dynamic tests.</p> <p>Course topics include the organization of control in metallurgical practice, sampling, determination of elastic and plastic deformation, hardness testing (Brinell, Vickers, Rockwell), toughness, fatigue of materials and fracture mechanics. Special attention is given to non-destructive testing methods, including optical, radiographic, ultrasonic, magnetic and indentation testing.</p> <p>In laboratory exercises, students apply the acquired knowledge to specific cases, analyze the test results and compare them to appropriate standards.</p> <p>The course prepares them for the professional evaluation of materials at different stages of use and decision making based on test results.</p>			

## Graduate study Metallurgy

COURSE DESCRIPTION – GENERAL INFORMATION			
<b>Name of the course</b>	Hydrometallurgy	<b>Credit value (ECTS)</b>	3
<b>Course teachers</b>	Prof. Damir Hršak, PhD	<b>Type of instruction (number of hours L+S+E)</b>	30+0+15
COURSE DESCRIPTION			
<p>Hydrometallurgy is an integral part of process metallurgy. In recent decades, it is gaining more and more importance because it is environmentally more friendly than pyrometallurgy, as well as poorer ores can be easily used in hydrometallurgical processes.</p> <p>The course consists of lectures and experimental exercises taking place in a chemical laboratory. The course covers the classification of leaching agents, the main hydrometallurgical technologies, the division of mineral raw materials suitable for hydrometallurgical processing, as well as methods of purifying and concentrating leaching products.</p>			

## Graduate study Occupational Safety, Health and Environment

COURSE DESCRIPTION – GENERAL INFORMATION			
<b>Name of the course</b>	Sustainable Business	<b>Credit value (ECTS)</b>	4

<b>Course teachers</b>	Assoc. Prof. Jakov Baleta, PhD	<b>Type of instruction (number of hours L+S+E)</b>	30+0+15
<b>COURSE DESCRIPTION</b>			
Introduce students to the basic principles of sustainable business, with special emphasis on occupational safety, health and environment. Apply the principles of sustainability to the company business.			