

<b>Level:</b> bachelor			
<b>Course title:</b> HISTORY OF NATURAL SCIENCES			
<b>Status:</b> elective			
<b>ECTS:</b> 5			
<b>Requirements:</b> none			
<b>Learning objectives</b> Multidisciplinary and interdisciplinary introduction to the development of natural sciences.			
<b>Learning outcomes</b> After successfully completing the course, the student is able to: Critically assess natural sciences development; Chronologically and thematically systematize the knowledge of science; Creatively write short essays on the development of science; Ethically evaluate research in the field of natural sciences history; Critically analyze of museological, bibliographical and archival material of natural sciences; Cooperate with relevant institutions; Multidisciplinary and interdisciplinary educate students in the field of natural sciences.			
<b>Syllabus</b> <i>Theoretical instruction:</i> Philosophy and religion of nature. Ionian and Aegean school of natural philosophy. Science in the Middle Ages, the age of alchemy. Science in the Renaissance. Period of great discoveries. Physics and Astronomy: Galileo Galilei, Isaac Newton, Leibniz and Johannes Kepler. Natural science and mathematics in the new century: Rudjer Boskovic, Robert Hooke, Christian Huygens, Robert Boyle. Modern cartography. Establishing chemistry as a science, basic chemical laws. Chemistry. Systematization in the natural sciences. Karl Line. Classification systems of minerals and crystals. Periodic table of elements. Charles Darwin and the theory of evolution. The establishment of biochemistry as a scientific discipline. Differentiation of sciences and the emergence of genetics, molecular biology, ecology and biotechnology. The emergence of non-Euclidean geometry. The theory of relativity and modern theories of the structure of matter. Nuclear physics and radiochemistry. Discoveries of new measuring instruments, fragmentation spectroscopy, resonance spectroscopy, laser era, GPS and modern timing (optical instruments). The development of natural sciences and mathematics among Serbs Atanasije Stojković, Emenuel Janković, Andreas Volni, Mihajlo Rašković, Sima Lozanić, Vuk Marinković, Josif Pančić, Siniša Stanković, Jovan Tucakov, Jovan Cvijić, Mihajlo Petrović Alas, Jovan Žujović, Stevan Milovanov.  <i>Practical instruction:</i>			
<b>Weekly teaching load</b>			Other:
Lectures: 3	Exercises:	Other forms of teaching: 1	