



UNIVERSITY OF SARAJEVO – FACULTY OF SCIENCE
SUBJECT DESCRIPTION

Form SP2

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Subject code: GE-153-4	Subject name: Climate change		
Study cycle: I	Year: I	Semester: II	ECTS credits: 6
Status: elective		Contact hours: 60 Lectures: 30 Practical courses: 30	
Assigned professors and assistants:	Lecturers and assistants selected for the field to which the course belongs		
Prerequisites:	/		
Subject objectives:	Enabling students to understand the essence of the concept of climate change. Mastery of students' knowledge in recognizing patterns of climate change and trends in greenhouse gas emissions. Additionally, to train students to understand and analyze basic climatological elements, define climate types, climate indices, and climate scenarios, and to understand the impact of climate change on natural processes and resources, anthropogenic activities, and to define environmental protection policies in the context of climate change mitigation..		
Teaching units:	1. Introduction lectures, the concept of climate change 2. Climate changes in geological history 3. Climate changes in the Holocene 4. Causes of climate change – natural and anthropogenic influences on climate change 5. Trends in greenhouse gas emissions – climate change since the beginning of the industrial revolution 6. Projections of climate change 7. Climate change scenarios 8. Partial exam 9. Analysis of basic climatological elements – defining climate types, climate indices, climate changes 10. Application of geoinformation technologies – climate change modeling 11. Assessment of vulnerability in economic sectors and adaptation to changed climate conditions 12. Impact of climate change on natural processes and resources and anthropogenic activities 13. Environmental protection policy in the context of climate change mitigation		



	14. Assessment of the potential for mitigating the impacts of climate change 15. Institutional and legal framework for protection against potentially negative effects of climate change and adaptation possibilities																															
Learning outcomes:	Knowledge: • Defines and understands the concepts of climate change and climate scenarios • Analyzes basic climatological elements to determine climate types, climate indices, and climate changes Skills: • Independently uses available databases on basic climatological elements at international and national levels • Independently analyzes basic climatic elements and performs their spatial and temporal comparison Competencies: • Independently assesses the impacts of climate change on natural processes and resources, as well as anthropogenic activities • Assesses the potential for mitigating the impacts of climate change, proposing measures for adaptation and climate change mitigation																															
Teaching methods:	Multimedia presentation and discussion (lectures); practical work, educational material analysis and discussion (practical courses).																															
Knowledge testing methods with grading structure¹:	<table><tr><td></td><td><i>Points</i></td></tr><tr><td>Attendance</td><td>5</td></tr><tr><td>Participation on lectures</td><td>5</td></tr><tr><td>Partial exam</td><td>40</td></tr><tr><td>Seminar paper</td><td>10</td></tr><tr><td>Final exam</td><td>40</td></tr><tr><td colspan="2"> </td></tr><tr><td>TOTAL</td><td>100</td></tr></table> Assessment: <table><tr><td><i>Grade</i></td><td><i>ECTS grade</i></td><td><i>Points scale</i></td></tr><tr><td>10</td><td>(A) excellent</td><td>95 - 100</td></tr><tr><td>9</td><td>(B) very good</td><td>85 - 94</td></tr><tr><td>8</td><td>(C) good</td><td>75 - 84</td></tr><tr><td>7</td><td>(D) satisfactory</td><td>66 - 74</td></tr></table>		<i>Points</i>	Attendance	5	Participation on lectures	5	Partial exam	40	Seminar paper	10	Final exam	40			TOTAL	100	<i>Grade</i>	<i>ECTS grade</i>	<i>Points scale</i>	10	(A) excellent	95 - 100	9	(B) very good	85 - 94	8	(C) good	75 - 84	7	(D) satisfactory	66 - 74
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¹ The structure of points and point criteria for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught in accordance with Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton



	6 (E) sufficient 55 - 64
	5 (F, FX) insufficient 55
Literature²:	Mandatory: 1. Šegota, T.; Filipčić, A. (1996.); Klimatologija za geografe, Školska knjiga, Zagreb 2. IPCC Intergovernmental panel on climate change - Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Climate Change 2021 The Physical Science Basis 3. IPCC (2013): Summary for Policymakers, Climate Change 2013: The Physical Science Basis. 4. Joseph L. Blast (2010): Seven Theories of Climate Change, The Heartland Institute Recommended: 1. Drugi nacionalni izvještaj Bosne i Hercegovine u skladu s Okvirnom konvencijom Ujedinjenih nacija 2013. 2. Treći nacionalni izvještaj i drugi dvogodišnji izvještaj o emisiji stakleničkih plinova Bosne i Hercegovine u skladu s Okvirnom konvencijom Ujedinjenih nacija o klimatskim promjenama juli 2016.

² The Senate of the higher education institution as an institution or a council of the organizational unit of the higher education institution as a public institution determines mandatory and recommended textbooks and manuals, as well as other recommended literature on the basis of which exams are prepared by a special act which is required to be published on its website before the beginning of the academic year in accordance with Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton.