Study program		Study cycle Orientation	First study cycle
			Tourism and Environmental Protection

SUBJECT					
Subject name		**Geoinformatics**			
Subject code	Semester	Subject status		ECTS credits	Contact hours
GIS-202-3	III	Mandatory		5	125
Prerequisites					
Assigned professors and assistants	Subject leader		Dr. Sc. Nusret Drešković, Full Professor		
	Teaching Assistants		MA Amina Sivac, Senior Teaching Assistant		

Subject objectives	The main objectives of the subject are: - Exploring and acquiring knowledge of students about the collection, preparation and geoinformation modeling of geographic data; - Exploring and acquiring knowledge of students about geoinformation system, its structure and components; - Exploring and acquiring knowledge of students about the hardware of a computer system; - Exploring and acquiring knowledge of students about the characteristics and functions of the system and application software; - Learning and acquiring knowledge of students about geodatabase, their structure, organization, and their application in modeling; - Understanding and gaining knowledge of students about the organization geoinformation graphical data and concepts of their application in modeling; - Exploring and acquiring knowledge of students about the spatial models geoinformation management facilities for tourism and environmental protection; - Exploring and acquiring knowledge of students about the most famous digital models of the Earth and its different regions and their potential application in regional and spatial planning

SUBJECT CONTENT

#	Teaching units	Contact hours			
		L	P	S	C
1.	Geoinformatics – term, definition, objectives, tasks and object of study. Geoinformatically data - concept, types, collection and organization.	2	2		
2.	Computer system and its components. History of development of computers. Types of computers. The architecture of a computer system.	2	2		
3.	Computer system architecture. Hardware - concept, structure and functioning of the computer. BIOS system.	2	2	1	1
4.	Hardware Components. Internal hardware components. The output-input devices. Optional external devices.	2	2	1	1
5.	System software. Operating system - concept, structure and implementation.	2	2	1	1
6.	OS MS-DOS - the main functions of the user interface. Windows OS - main functions and user interface. LINUX OS. Mac OS.	2	2	2	1
7.	First test	1			
8.	Application software - term, definition and importance. Division of application software. MS Office. Corel Draw.	2	2	2	1
9.	Geoinformatically software - term, definition and importance. Types of Geoinformatics software. GIS - basic concepts, definitions and classification.	2	2		
10.	Geoinformatic organization geodatabases and their structure. Basic models of operation with geodatabases.	2	2	2	1
11.	Graphic Geoinformatics data - term, definition and importance. Types of graphical GIS data. Sources graphical GIS data. Raster graphics data - term, types and sources of raster data.	3	4	2	1
12.	Vector graphics data - term, definition and importance. Structure and types of vector data. Sources vector data.	3	4	2	1
13.	Basic modules of geoinformatics software. Preparing geographic data for geoinformatic processing.	2	2	1	1
14.	Geoprocessing. Geovisualizations. Thematic data sets	2	2	1	1
15.	The world's computer networks. Internet sources of GIS data. The best-known Internet applications of digital models of the earth and continents.	1	1		

STUDENT WORKLOAD (HOURS)							
Contact Hours (L+P)	60	Practical work	10	Seminars	15	Exam study time	15
Literature – reading	15	Written papers		Other (state)	10	TOTAL	125

LITERATURE	EVALUATION OF KNOWLEDGE AND CRITERIA

		LITERATURE

BASIC LITERATURE:
. 1. Đug S., Drešković, N., Odžak, S. (2015):
. Daljinska istraživanja – principi i primjena u
. prirodnim naukama. University textbook..
. University of Sarajevo. Sarajevo.
. 2. Burrough, P.A., McDonnel, R.A. (2006):
Principles of Geographical Information Systems –
2nd Edition.Oxford
. University Press.
. 3. Kvarternik, R.(1988): Uvod u operativne sisteme.
Informator. Zagreb,.
8. Rožić, N. (1996): Geoinformatika III.
Manuscript. Zagreb.

ADDITIONAL LITERATURE:
1. Kurtović – Numić,S. (2002): Informatika, Fojnica
2. A Guide to Computer Systems (2015)
3. OS Windows Guide (2015)
4. Microsoft Office Guide (2015)
5. Corel Draw Guide (2015)
6. ESRI Guide (2015)

	PARAMETERS	Maximum Points	Minimum points
1.	Attendance	5	3
2.	Participation on lectures	5	3
3.	First test	40	22
4.	Seminar	10	6
6.	Final exam	40	21
	Total	100	55