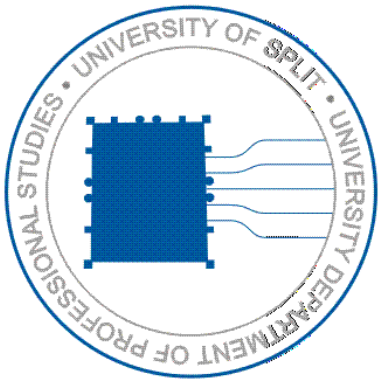
Course syllabus

Data Analysis and Processing



COURSE DETAILS		
Type of study programme	Undergraduate professional study programme- 180 ECTS	
Study programme	INFORMATION TECHNOLOGY	
Course title	Data Analysis And Processing	
Course code	SIT127	
ECTS (Number of credits allocated)	6	
Course status	Elective	
Year of study	Second / Third	
Course Web site	https://moodle.oss.unist.hr/course/view.php?id=129	
Total lesson hours per semester	Lectures	45
	Laboratory exercises & practical demonstration	30
Prerequisite(s)	None	
Lecturer(s)	Department of Information technologies: Igor Nazor, PhD, senior lecturer	

COURSE DESCRIPTION	
Course Objectives:	• Provide insight into methods and tools for analysis and processing of the data generated by modern information systems
Learning outcomes **On successful completion of this course, student should be able to:**	1. explain basic terms in the area of Information Systems development and management, group database management systems according to their purpose, and give an insight into the statistical methods of data analysis and prediction. 2. Explain methods of data analysis in a company, define business situations in which data processing methods are applicable, and define scope of use of different types of data base management systems. 3. Demonstrate use of SQL for extracting and preparing data 4. Create SQL queries for extracting and grouping data from different types of database management systems.
Course content	Structure of Information Systems. Basics of IS planning. Statistical analysis of data. Numeric and linguistic data. Data clustering. Statistical models for data processing. Data Warehouse, OLAP, Data Mining.

CONSTRUCTIVE ALIGNMENT – Learning outcomes, teaching and assessment methods

Alignment of students activities with learning outcomes		
Activity	**Student workload ECTS credits**	**Learning outcomes**
Lectures	45 hours / 2 ECTS	1,2,4,5
Laboratory work	30 hours / 1 ECTS	3,6
Seminar	45 hours / 1,5 ECTS	3,5,6
Two mid-term exams(preparation and delivery)	30 hours / 1 ECTS	1,2,3,4,5,6
Office hours and final exam	15 hours / 0,5 ECTS	1,2,4,5,6
TOTAL:	**150 hours / 6 ECTS**	**1,2,3,4,5,6**

CONTINUOUS ASSESSMENT		
Continuous testing indicators	**Performance A_i (%)**	**Grade ratio k_i(%)**
Class attendance and participation	50 - 100	5
Laboratory work	100	10
First mid-term exam	50-100	25
Second mid-term exam	50-100	25
Seminar	50-100	35

FINAL ASSESSMENT		
Testing indicators – final exam (first and second exam term)	**Performance A_i (%)**	**Grade ratio k_i(%)**
Practical exam (written)	50 - 100	60
Previous activities (include all continuous indicators)	50 - 100	40
Testing indicators – makeup exam (third and fourth exam term)	**Performance A_i (%)**	**Grade ratio k_i(%)**
Practical exam (written)	50 - 100	60
Previous activities (include all continuous testing indicators)	50 - 100	40

PERFORMANCE AND GRADE		
Percentage	**Criteria**	**Grade**
50% - 61%	*basic criteria met*	sufficient (2)
62% - 74%	*average performance with some errors*	good (3)
75% - 87%	*above average performance with minor errors*	very good (4)
88% - 100%	*outstanding performance*	outstanding (5)

ADDITIONAL INFORMATION

Teaching materials for students (scripts, exercise collections, examples of solved exercises), teaching record, detailed course syllabus, application of e-learning, current information and all other data are available by MOODLE system to all students.