



**UNIVERSITY OF PRIZREN  
FACULTY OF COMPUTER SCIENCE**

PROGRAM: SD

<b>Curriculum - – SYLLABUS</b>							
<i>Level of studies</i>	Bachelor	<i>Program</i>	SD	<i>Academic year</i>	2017/2018		
<i>SUBJECT</i>	Discrete Mathematics						
<i>Year</i>	<b>I</b>	<i>Status Of the subject</i>	Obligatory	<i>Code</i>		<i>ECTS credits</i>	6
<i>Semester</i>	2						
<i>Teaching weeks</i>	15		<i>Hours teaching</i>	60	<i>Lectures</i>	<i>Exercises</i>	
					2	2	
<i>Teaching Methodology</i>	Lecture , exercise						
<i>Consultation</i>	1 h/week						
<i>The teacher</i>	<b>Prof.Dr.Abdullah Zejnullahu</b>			<i>E-mail:</i>	<b>abdullah.zejnullahu@uni-pr.edu</b>		
				<i>Tel.:</i>	044276292		
<i>Assistant</i>				<i>E-mail:</i>			
				<i>Tel.:</i>			

<b>Study goal and table of content</b>	<b>Benefits of student</b>
<p>The aim of the module is to provide students with mathematical knowledge that has a straightforward application into computer science. A part of the concepts dealt with in this module are already known to the students, but the aim here is to formalize these up to a level which allows them to provide ideas for solving different practical problems.</p>	<p>After completing this course the student will be able to:</p> <ol style="list-style-type: none"> <li>1. student will be able to use the concepts from this course without hesitation in describing concrete problems</li> <li>2. will have developed enough trust in himself in order to be able to work on a problem without afraid of any insecurity</li> <li>3. Student will be able to give appropriate interpretation and use of mathematical terminology, symbols and conventions from simple through to complex in life-related and abstract situations</li> <li>4. The course will help students for organization and presentation of information in a variety of representations as well as analysis and translation of information from one representation to another in life-related and abstract situations</li> <li>5. Students will learn about the mathematical concepts and practices that are most generally useful in the study of mathematics for business-informatics</li> <li>6. They will be studying a body of mathematical concepts essential for the mastery of some of</li> </ol>

	<p>the higher-level courses /</p> <p>7. To enhance the ability to formulate and solve applied problems, to analyze and interpret algorithms and functions and to use them effectively so the students may enjoy the triumph of discovery that comes from solving a problem by their own means</p> <p>8. to help students to learn how to think about discrete mathematical models so they can do well in this course and in their subsequent studies /</p>
--	--

**Methodology for the implementation of educational topics:**

1. Written examination/
2. Individual solution of exercises/
3. Answering to the short answer questions
4. Solving homework
5. Identifying different methods of solutions

**Conditions for realization of educational topics:**

Tables and markers, demonstration and task exercises will be used.

Ways of assessing of the student (in %) :	Evaluation in%	Final grade
Excellence and activity: 10% Periodic tests: 45% Final Test: 45%	90-100%	10
	80-89%	9
	70-79%	8
	60-69%	7
	50-59%	6

**Obligations of student:**

Lectures	Exercises		
Lecture 30 hours of contact	30 hour contact exercises		
Activities	Hour/ weeks	Days/Weeks	
Lectures	2	15	30
Laboratory exercises	2	15	30
Contacts with teachers / consultations	1	15	15
Practical work			
Projects, presentations, etc.			
Own study time	2	15	30
Preparation for final exam			30
Time spent in the assessment (tests, final exam, etc.)			15
<b>Notice: 1 ECTS credits= 25 hour commitment, e.g. if the subject has</b>		<b>Total</b>	<b>150</b>

6 ECTS credits student must have 150 hours during the semester commitment.			load:	
Week	Lectures	Hour	Exercises	
	Topic		Topic	
1	Notification of students with the syllabus of the subject.	2	Duty from elementary mathematics	2
2	Some concepts and properties of integers	2	Some concepts and properties of integers	2
3	Factors and Multiples	2	Factors and Multiples	2
4.	Some special sets and operations with them.	2	Some special sets and operations with them	2
5	Functions and sequences	2	Functions and sequences	2
6	Properties of Functions	2	Properties of Functions	2
7	Informal introduction to logic	2	Informal introduction to logic	2
8	Propositional Calculus	2	Propositional Calculus	2
9	First test	2	First test	2
10	Getting started with proofs and methods of proof	2	Getting started with proofs and methods of proof	2
11	Logic in proofs and analysis of arguments	2	Logic in proofs and analysis of arguments	2
12	Relations	2	Relations	2
13	Digraphs and Graphs; Matrices	2	Digraphs and Graphs; Matrices	2
14	Equivalence relations and partitions	2	Equivalence relations and partitions.	2
15	The final test	2	The final test	2

**BIBLIOGRAPHY:****Basic Text:**

Title: Discrete Mathematics

Author: Kenneth A. Ross, Charles R.B. Wright

Publisher: Prentice-Hill

Year: 2003

ISBN:

**Supplementary Materials:**

Kenneth H. Rossen, Discrete Mathematics and its applications, fourth edition, WCB McGraw-Hill

**NOTICE:**

Reminder for the student:

The student should be regular in classroom hours, keep the classroom quiet, do not copy tests and exams.