UNIVERSITETI "KADRI ZEKA" UNIVERSITY

Zija Shemsiu, 60000, Gjilan, Kosovë

www.uni-gjilan.net tel: 0280-390-112

SYLLABUS

Course: **Algebra 2**

Basic information of the course	
Academic unit:	**FAS**
Course Title:	**Algebra 2**
Level:	**Bachelor**
Program:	**Mathematic Education**
Course status:	**Obligatory**
Academic year:	**2019/2020**
Year of study:	**Year II, Semester III**
Number of hours per week:	**3+2**
Credits – ECTS:	**7 ECTS**
Timer / Location:	
Professor of subject:	**Prof. Ass. Dr.**
Contact details:	
Description, Objectives and expected resultes	
Course description:	**The content of *Algebra 2* includes: Determinantes and Matrices; Systems of linear equations; Vector space; Linear functions; compositions and Inverse of functions; Scalar product;**
Objectives of the course:	***Algebra 2* aims at integrating professional training in the field of mathematics education of bachelor studies. The course objectives are for the student to start with basic knowledge in the field of Linear Algebra. Another challenge is to develop students' abilities and skills to succeed in solving concrete problems in the field of mathematics whenever the need for Linear Algebra implementation is required.**
Expected learning outcomes:	**After successful completion of the course *Algebra 2*, students will be able to:** • **Recognize and understand the definition of the determinants and matrix implement this knowledge by solving various problems.** • **Recognize and understand the concept of vector space,** • **Recognize and understand linear functions and their properties .**

Student contribution			
Activity	Hours	Day / Week	Total
Lectures	3	15	45
Theoretical exercises / laboratory	2	15	30
Contacts with teacher / consultations	1	15	15
Collocfiums, seminars	3	2	6
Homework	1	15	15

Self-learning time student (at the library or at home)	1	15	15
Final preparation for the exam	2	15	30
Projects, seminars, presentations, etc.	3	1	9
Total			**165**
165:25≈7 ECTS.			

Teaching methodology and assessment methods	
Teaching methodology:	**Regular lessons, lectures, consultations, discussions, individual independent work, term papers (homework), presentations.**
Methods of assessment:	**The exam consists of a written part and the oral part.** **The assessment is based on the following activities:** **Participation and engagement in hours (10%)** **(Koll.) Test 1-40% (written examination)** **(Koll.) Test 2-40% (written examination)** **Seminar papers (individual independent work) - 10%** **Final exam:** **80% (for those who do not pass kollokfiumet).** **Points Score** **91-100 10** **81-90 9** **71-80 8** **61-70 7** **51-60 6**
Literature	
Base literature:	• **Ligjerata të autorizuara nga profesori, Gjilan. 2019.** • **Tanush Shaska, Lubjana Beshaj: Algjebra,ISBN: 978-1-60985-003-6** • **T. W. Hungerford, Algebra, Springer Verlag, 1996.** • **Emrush Gashi, Kursi i Algjebrës Lartë, FSHMN, Univerziteti i Prishtinës, 1980** • **S. Lang, Algebra, Addison-Wesley, 1984.** • **Ejup Hamiti, Matematika I, Fakulteti Teknik, UP, 1987, Prishtinë** • **Nocolas Bourbaki, (Elements of Mathematics), AlgebraI,1971,Paris.** • **Petraq Petro, Ushtrime për simbolet logjike, bashkësit, metodën e induksionit matematikë, relacionet, pasqyrimet, veprimet algjebrike, grupet , unazat, trupat dhe fushat. Tiranë 2010.**

Designed teaching plan:	
Week	**The lecture to be held**
I - week :	Definition of determinants. Examples.
II - week :	The properties of the determinants
***III - week*:**	Definition of matric. Examples.
IV - week :	Operations with matrices and their properties.
V - week:	Systems of linear equations. Examples.
VI- week	Methods for solving systems of linear equations
VII-week	The first colloquium
VIII-week	Definition of Vector space. Examples.
IX-week	Properties of vector space.
X-week	Definition of Linear Functions. Examples.

XI-week	Properties of linear functions.
XII-week	Composition of functions and inverse of functions
XIII-week	Scalar production in vector space
XIV-week	Orthogonality in vector space
XV-week	The second colloquium
Academic policies and rules of etiquette:	
Regular attendance of students assessed with 10 points, **- Students are free to ask questions and active participation in all teaching activity.** **- They are not allowed cell phones, late arrival or departure from the class without reason.** **- Plagiarism and copying in exams are penalized under the statute and other regulations of the university.** **- The Code of conduct applies to both students and teachers.**	