



## UNIVERSITETI "KADRI ZEKA" UNIVERSITY

Zija Shemsiu, 60000, Gjilan, Kosovë  
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### SYLLABUS

Course: Physic

Basic information of the course	
Academic unit:	<b>FAS</b>
Course Title:	<b>Physic</b>
Level:	<b>Bachelor</b>
Program:	<b>Mathematic Education</b>
Course status:	<b>Obligatory</b>
Academic year:	<b>2019/2020</b>
Year of study:	<b>Year II, Semester III</b>
Number of hours per week:	<b>2+2</b>
Credits – ECTS:	<b>5 ECTS</b>
Timer / Location:	
Professor of subject:	<b>Prof. Ass. Dr.</b>
Contact details:	
Description, Objectives and expected results	
Course description:	<b>The course provides an introduction to general physics for students who will study mathematics at university level. Students will get acquainted with the fundamental definitions and concepts within the more central topics of classical physics and partly modern physics and astronomy. Students will study units selected by mechanics (kinematics, dynamics and statics, fluid and gas statics, hydrodynamics, movement of value and sound), heat, electricity and magnetism (electrostatic bases, basic electrical power laws, electromagnetism, currents alternatives, electric current to gases, electromagnetic waves, photoelectric effect), optics (geometric optics, physical optics, photometry), atomic physics, nuclear physics and astronomy.</b>
Objectives of the course:	<b>Through this course, students will consolidate their previous knowledge and gain new knowledge of general physics and its legality. Through the subject, students of mathematics education will develop new knowledge of the physics and legality of nature, and will understand the role of mathematics as a "language" of rules and laws of nature. In this way, students will form a fair attitude towards nature, and will acquire life skills and work habits. The teaching of physics as a science of nature, together with mathematics and other sciences, strongly influences the formation of human personality, its intellectual and professional upbringing.</b>

Expected learning outcomes:	<p>After completing this course the student will be able to:</p> <ul style="list-style-type: none"> <li>• Know the nature, the basic natural laws that guide the microbat and microbats, its energy, its types and its transformations.</li> <li>• Know the interrelationship of natural sciences and the role of mathematics in the teachings of the laws of nature.</li> <li>• use mathematical formulas to describe the laws and phenomena of physics,</li> <li>• express yourself in writing in a regular and correct way in solving tasks,</li> <li>• be able to analyze a physical problem and discuss which physics formulas are needed to solve the problem.</li> </ul>
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**Student contribution**

Activity	Hours	Day / Week	Total
Lectures	2	15	30
Theoretical exercises / laboratory	2	15	30
Contacts with teacher / consultations	0.2	15	3
Colloquiums, seminars	0.4	15	6
Homework	0.3	15	4.5
Self-learning time student (at the library or at home)	2	15	15
Final preparation for the exam	1	15	15
Spent time for realization of colloquium, tests, quiz and presentations.	0.3	15	4.5
Projects, seminars, presentations, etc.	2	1	2
<b>Total</b>			<b>125</b>

**125:25≈5 ECTS.**

**Teaching methodology and assessment methods**

Teaching methodology:	<p>Regular lesson is organized and realized using a convenient combination of three teaching methods:</p> <p>a) With interaction, the student at the center - group work (a combination of andragogical and pedagogical methods)</p> <p>b) With interaction, the center teacher (andragogical methods)</p> <p>c) The center-group teacher (andragogical method)</p>										
Concretizations material	TI, Tables, Markers, Video Projectors, Printers, Lab Equipment, etc.										
Methods of assessment:	<p>The exam consists of a written part and the oral part.</p> <p>The assessment is based on the following activities:</p> <p>Participation and engagement in hours (10%)</p> <p>(Koll.) Test 1-40% (written examination)</p> <p>(Koll.) Test 2-40% (written examination)</p> <p>Seminar papers (individual independent work) - 10%</p> <p>Final exam:</p> <p>80% (for those who do not pass colloquiums).</p> <p>Points Score</p> <table> <tr><td>91-100</td><td>10</td></tr> <tr><td>81-90</td><td>9</td></tr> <tr><td>71-80</td><td>8</td></tr> <tr><td>61-70</td><td>7</td></tr> <tr><td>51-60</td><td>6</td></tr> </table>	91-100	10	81-90	9	71-80	8	61-70	7	51-60	6
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81-90	9										
71-80	8										
61-70	7										
51-60	6										

<b>Literature</b>	
<b>Base literature:</b>	<ul style="list-style-type: none"> <li>• Grup Autorësh, Kurs i Fizikës së Përgjithshme, pjesa I-rë, 2007</li> <li>• Skender Skenderi Fizika, Prishtine, 2007</li> <li>• Shënime nga mësimdhënësi i lëndës.</li> <li>• “Fizika Molekulare dhe Termodinamika” (Fizika 2) Th. Karaja, F. Klosi, E. Lika, R. Zeqirllari. Tekst mësimor, INFBOTUES, Tiranë 2016</li> <li>• Notes On Thermodynamics, Joseph M. Powers. Indiana 46556-5637, USA, Updated 27 January 2014.</li> <li>• Vila F., Mejdani R., 2002: Elektromagnetizmi, SHBLU, Tiranë.</li> <li>• F.Vila, R.Meidani, Fizika Moderne, SHBLU,Tiranë, 2009.</li> <li>• Paul. A. Tipler, Ralph A. Llewellyn. Modern Physics. Third Edition. W.H. Freeman and Company. USA.</li> </ul>
<b>Designed teaching plan:</b>	
<b>Week</b>	<b>The lecture to be held</b>
<i>I - week :</i>	<b>Materia</b>
<i>II - week :</i>	<b>Physical quantities, dimensions and measurement</b>
<i>III - week :</i>	<b>Movement</b>
<i>IV - week :</i>	<b>Force</b>
<i>V - week:</i>	<b>Work, energy and power</b>
<i>VI- week</i>	<b>Pressure</b>
<i>VII-week</i>	<b>Heat</b>
<i>VIII-week</i>	<b>Electricity</b>
<i>IX-week</i>	<b>Electromagnetic</b>
<i>X-week</i>	<b>First colloquium</b>
<i>XI-week</i>	<b>Optica 1</b>
<i>XII-week</i>	<b>Optica 2</b>
<i>XIII-week</i>	<b>Atomic and nuclear physic</b>
<i>XIV-week</i>	<b>Astronomy 1</b>
<i>XV-week</i>	<b>Second colloquium</b>
<b>Academic policies and rules of etiquette:</b>	
<p>Regular attendance of students assessed with 10 points,</p> <ul style="list-style-type: none"> <li>- Students are free to ask questions and active participation in all teaching activity.</li> <li>- They are not allowed cell phones, late arrival or departure from the class without reason.</li> <li>- Plagiarism and copying in exams are penalized under the statute and other regulations of the university.</li> <li>- The Code of conduct applies to both students and teachers.</li> </ul>	