

## SYLLABUS

Basic data of the course:	
<b>Academic Unit:</b>	Faculty of Architecture, Design and Wood Technology
<b>Course Title:</b>	Mathematics
<b>Level:</b>	Bachelor
<b>Course Status:</b>	Obligatory
<b>Year of study:</b>	I
<b>Number of classes per week:</b>	4
<b>Credits - ECTS:</b>	6
<b>Time / location:</b>	Friday, 13: 00-16: 00 / Room 117
<b>Teacher of the course:</b>	Prof.Ass. Dhuratë Hyseni
<b>Contact details:</b>	dhurate.hyseni@ushaf.net
Course Description	
<b>Course Description</b>	Basic Concepts of Sets and Sets Actions, Real-Number Sets and Real-Number Actions, Elements of Linear Algebra, Determinants, Matrices and Linear Equations Systems, Understanding the Function and its Application, Elemental Functions and Their Graph, Numerical Verses and their application, Geometry and Measurement, Trigonometry,
<b>Course objectives:</b>	The purpose of this module is to equip students with knowledge and skills for basic mathematical meanings, geometry and measurement, function understanding, function assignment, some function classes, matrix meanings, and so on. As well as the main purpose is their implementation in the field of their study, the development of students' skills and abilities to solve concrete problems in their field of study.
<b>Expected outcomes of learning:</b>	Upon successful completion of this module, students will be able to: <ul style="list-style-type: none"> <li>• Have basic conceptual knowledge of the importance of Mathematics in engineering,</li> <li>• Recognize and understand the elements of linear algebra in solving problems in the field of engineering,</li> <li>• Apply trigonometry in solving problems from design and construction of wood products.</li> <li>• Recognize the concept of the verse and</li> </ul>

	function, types of functions, properties and their applications in constructive engineering. • Know the basic concepts of geometry.		
<b>The contribution of the student's load (something that should be correspond with the result of the students learning)</b>			
<b>Activity</b>	<b>Hour</b>	<b>Day / week</b>	<b>Total</b>
Lectures	2	15	30
Theoretical / laboratory exercises	2	15	30
Practical work			
Contacts with teacher / consultations	1	10	10
Field exercises			
Tests, seminars	3	2	6
Homework	1	10	10
Self learning time of the student (at the library or at home)	2	15	30
Final preparation for the exam	2	15	30
Time spent on evaluation (tests, quiz, final exam)	2	3	6
Projects, presentations, etc.			
<b>Total</b>			<b>152</b>
<b>Teaching methodology:</b>	<i>Lectures and exercises combined with class discussions</i>		
<b>Evaluation methods:</b>	<i>Assessment of students' knowledge is based on the following activities:</i> <i>First evaluation</i> 45% <i>Second evaluation</i> 45% <i>Attendance and Exercises</i> 10% ----- <i>Total:</i> 100% <i>Final exam:</i> 90% (For those who do not show good results in tests)		
<b>Literature</b>			
<b>Basic literature:</b>	<ol style="list-style-type: none"> <li>1. Dr.Sc.Ajet Ahmeti, <i>Mathematics for economists, Prishtina-2006.</i></li> <li>2. Dr.Sc. Faton Berisha and Dr.Sc. Muharrem Berisha, <i>Mathematics for Economics and Business, Prishtina-2007</i></li> </ol>		

	3. <i>Dr.Sc.Razim Hoxha, Summary of tasks solved from mathematics I, Prishtina 2011</i>
<b>Additional literature:</b>	1. <i>Dr.Sc. Sadri Shkodra, Mathematics I, 2001</i> 2. <i>Dr.Sc. Ejup Hamiti, Mathematics I, 1983</i>
<b>Designed learning plan:</b>	
<b>Week</b>	<b>Topic that will be lectured</b>
<b>Week One:</b>	<b>Mathematical basic concepts:</b> 1. The numbers and their types 2. Sets and actions with sets
<b>Week Two:</b>	<b>Basic mathematical operations:</b> 1. The rules of mathematical operations 2. Numeric Scale
<b>Week Three:</b>	<b>Algebra:</b> 1. Linear equations with one unknown 2. Linear equations with two unknown 3. Inequations 4. Absolute value
<b>Week Four:</b>	<b>Matrices:</b> 1. The meaning of matrices 2. Actions with matrices 3. Application of matrices
<b>Week Five:</b>	<b>Determinants:</b> 1. Understanding determinants (of the second and third order) 2. Method of minors 3. Method of triangle 4. The method of Kramer
<b>Week Six:</b>	<b>Application of matrices and determinants:</b> 1. Solving systems of linear equations with two unknowns 2. Solving systems of linear equations with three unknowns
<b>Week Seven:</b>	<b>Percentages:</b> 1. Understanding the percentage 2. Calculation of percentage 3. Application of percentages in engineering
<b>Week Eight:</b>	<b>First evaluation</b>
<b>Week Nine:</b>	<b>The string:</b> 1. The meaning of string 2. Types of strings 3. Application of string in engineering
<b>Week Ten:</b>	<b>Limit of the string</b>
<b>Week Eleven:</b>	<b>Functions with a variable:</b>

	<ol style="list-style-type: none"> <li>1. Forms of appearance of functions</li> <li>2. The basic functions and their graph.</li> <li>3. Application of functions in engineering</li> </ol>
<b>Week Twelve:</b>	<b>Geometry and measurement</b>
<b>Week Thirteen:</b>	<b>Second-degree surfaces:</b> <ol style="list-style-type: none"> <li>1. Spherical surfaces (spheres)</li> <li>2. Cylindrical surfaces</li> <li>3. Conical surfaces (cone)</li> </ol>
<b>Week Fourteen:</b>	<b>Trigonometry</b>
<b>Week Fifteen:</b>	<b>Second evaluation</b>

<b>Academic policies and rules of conduct:</b>	
<p><i>Regular attendance, keeping calm and active engagement in dialogue during lectures and exercises is compulsory.</i></p> <ul style="list-style-type: none"> <li>• <i>Students are required to attend lectures and exercises regularly.</i></li> <li>• <i>Students should come to class on time and are not allowed to go out of class for no reason</i></li> <li>• <i>Students may not enter lectures and exercises after the beginning of the exercises and lectures.</i></li> <li>• <i>Students are free to ask questions and participate in any activity.</i></li> <li>• <i>Students should keep calm and actively engage in dialogue in lectures.</i></li> <li>• <i>Students should unlock cell phones during class and exams.</i></li> <li>• <i>COPYING and any other form of cheating during exams is not allowed.</i></li> </ul>	
<b>Grading</b>	
<ul style="list-style-type: none"> <li>• <b>Over 49% Sufficient</b></li> <li>• <b>Up to 49% Fail</b></li> </ul>	<ul style="list-style-type: none"> <li>• 50-59 : 6 (six)</li> <li>• 60-69 : 7 (seven)</li> <li>• 70-79 : 8 (eight)</li> <li>• 80-89 : 9 (nine)</li> <li>• 90-100 : 10 (ten)</li> </ul>