NEAR EAST UNIVERSITY – COMMON COURSES COORDINATION UNIT

Course Information Sheet & Course Outline

2021-2022 Fall Semester

Course Code	Course Name	Credit	ECTS
MTH131	**Mathematics for Tourism students**	3	6

Pre-requisite: --

Language: English	Course Type: Compulsory	Year: 2021-2022	Semester: Fall

Weekly Hours	Class Hours	Laboratory	Practicum	Learning Sessions			
				PS	C	R	T
	3	-	-				

Lecturer: Assist.Prof.Dr. Mohammad Momenzadeh

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Learning Outcomes	Upon successful completion of this course, the student will have reliably demonstrated the ability to: a. Solve technical problems related to economical projects through the application of principles of mathematics. b. Prepare graphic representations using geometry applications. C. Apply concepts of geometry functions to management calculation. D. solves algebraic, exponential and logarithmic equations.	
Course Description	This course provides a foundation in mathematics subjects related to management and decision applications. Students will develop skills in mathematical thinking and problem solving, by employing the use of algebra, trigonometry and two- and three-dimensional geometry.	
Course Objectives	This course gives students basic knowledge of classical geometry of areas and surfaces. Among other students will learn and understand the particular interest of some mathematical concepts. Furthermore, they learn how and where the mathematics tools can be used to calculate the necessary concepts.	
Textbooks and/or References	1	Sobecki, D., Bluman, A. G., Schirck-Matthews, A., & Bluman, A. G. (2011). *Math in Our World*. McGraw-Hill.
	2	Thomas, H. S. (2002). The A to Z of Mathematics: A Basic Guide.
	3	Math is Fun (mathsisfun.com)
	4	
	5	
	6	
Course Content	Arithmetic operations and their properties, set theory, line equation, trigonometric functions, area and surface and volume, functions, parabola, sketching the graphs, composition	
Methods and Techniques Used in the Course	Methods of Instruction/Course Format/Delivery: Methods employed will include Lecture/demonstration, discussion, problem solving, analysis, and reading assignments. Homework will be assigned. Faculty may choose from, but are not limited to, the following methods of instruction: Lecture, Discussion, Internet, Video, Television, Demonstrations	

WEEKLY OUTLINE

Week	Date	Topic	Activities	Reference
1	10/4-10/2021	**Introduction to the Course**		
2	10/11-17/2021	Set theory	Set theory, union, intersection, Vann diagram, set of the numbers, natural numbers, integers, rational and irrational numbers	
3	10/18-24/2021	Operations on set, arithmetics	Arithmetic operations, multiplication, addition, subtraction for fractions and rational numbers, irrational numbers and square roots, factorization to the prime numbers	
4	10/25-31/2021	GCD and LCM	Greatest common factor, least common multiple, finding the common divisor in the aid of GCD and LCM, Euclidian algorithm	
5	11/1-7/2021	Functions and relations	Ordered pair, relation, function and mapping, domain, range, value of the function, presentation of the function by graph and diagram.	
6	11/8-14/2021	Line equations and properties	Line equation, slope and gradient, line formula, X-intercept and Y-intercept, parallel and orthogonal lines, comparison of two lines	
7	11/15-21/2021	Parabola and curves	Cone and parabolic forms, canonical points, vertex, concavity, sketching the parabola, solving quadratic equations with delta and factorization method	
8	11/22-28/2021	İnequalities	Line inequality, solving first and second inequality, table of signs	
9	12/..-5/2021	Exponential and logarithmic functions	Definition of exponential, basic rules, logarithm, properties of natural logarithm, equations based on logarithm and exponentials	
10	12/6-12/2021	Geometry of shapes and area	Definition of area, square, triangle, circle, trapezoid, converting the scale and systems.	
11	12/13-19/2021	Surface area and volume	Areas of the surface, cone, sphere, classical geometric shapes, cube.	
12	12/20-26/2021	Trigonometric functions	Basic definition, right triangle, sin, cos, sec, tan, cot, basic identities	

13	12/27-31/2021	Trigonometric functions	Double angles identities, periodic properties, calculation of area by trigonometric values	
14	10/4-10/2021	Excersices	Excersices	
15		Final Exam	**Final exam**	
16				

Attendance: Minimum 70 %

Assessment Breakdown		**Type**	**%**	**Reference/ Source**
	1	Midterm (1 assignment and 1 exam)	%40	Up to the end of week 6
	2	Final (1 exam)	%60	All materials
	3			
	4			

Learning Program

Educational Tool	**Amount**	**Student Work Load (Hours)**	**Educational Tool**	**Amount**	**Student Work Load(Hours)**
			Total		
		Recommended ECTS Credit (Total Hours / 30):		**/30 = ~**	