ÇAĞ ÜNİVERSİTESİ
ÇAĞ UNIVERSITY

VOCATIONAL SCHOOL
BANKING AND INSURANCE PROGRAM

Course Code	Course Name		Credit	ECTS Value
MAT145	Business Mathematics		2 (2-0-2)	5

Prerequisite Courses	None		
Course Language	Turkish	Course Delivery Method:	Face-to-Face
Course Type and Level	Compulsory /1st Year /Fall Semester		

Instructor's Title, Name and Surname	Course Hours	Office Hours	Contact
Lecturer Betül AKTAŞ	Monday 13:25-14:55	Monday 11:00-12:00	**betulaktas@cag.edu.tr**

Course Coordinator	Lecturer Betül AKTAŞ

Course Objective

			Course Objective	
	Upon successful completion of this course, the student will be able to;		Course Objective	Course Objective
Course Learning Outcomes	1	Defines basic concepts, types of numbers, rational and exponential numbers, and interest calculation methods.	1	5
	2	Classifies sets of numbers.	1	5
	3	Explains the role of ratio-proportion, percentage calculation, and algebraic operations in financial and commercial transactions.	1	5
	4	Applies the steps of operations in the correct order.	1	5
	5	Applies types of interest, profit–loss, and cost–income calculations to real-life financial examples.	4	5
	6	Forms and solves first-degree equations and applies the results to simple financial situations in business life.	4	5
	7	Develops solutions to simple mathematical problems encountered in business and banking operations.	4	5
Course Content:	The Business Mathematics course aims to equip Banking and Insurance program students with the ability to analyze financial and commercial transactions using mathematical methods. It covers topics such as interest, ratio–proportion, discount, profit–loss, cost, and income calculations, as well as algebra and basic calculation concepts that support decision-making processes in social and economic fields. In this way, students develop analytical thinking and problem-solving skills, along with mathematical reasoning and numerical analysis competencies.			

Course Content: (Weekly Course Plan)			
Week	Topic	Preparation	Teaching Methods and Techniques
1	Basic Concepts	Textbook, Slides	Lecture
2	Numbers	Textbook, Slides	Lecture, Problem Solving
3	Rational Numbers	Textbook, Slides	Lecture, Problem Solving
4	Exponential Numbers	Textbook, Slides	Lecture, Problem Solving
5	Ratio and Proportion	Textbook, Slides	Lecture, Problem Solving
6	Percentage Calculation	Textbook, Slides	Lecture, Problem Solving
7	Types of Interest and Interest Calculation	Textbook, Slides	Lecture, Problem Solving
8	Midterm Exam	All Course Notes	Application

9	Midterm Exam	All Course Notes	Application
10	Algebraic Operations and Identities	Textbook, Slides	Lecture, Problem Solving
11	First-Degree Equations with One Variable	Textbook, Slides	Lecture, Problem Solving
12	First-Degree Equations with Two Variables	Textbook, Slides	Lecture, Problem Solving
13	Functions	Textbook, Slides	Lecture, Problem Solving
14	Graph Reading	Textbook, Slides	Lecture, Problem Solving
15	Project Submission	All Course Notes	Project Preparation
16	Sample Question Solving	All Course Notes	Problem Solving
17	Final Exam	All Course Notes	Application
18	Final Exam	All Course Notes	Application

Course Resources

Textbook	Meslek Yüksekokulları için Matematik; Öğr.Gör.Dr.Birkan Durak; Nobel Yayınevi; 978-625-406-872-0; Ankara; 2021
Recommended Resources	İşletme Matematiği ,Tununay Yılmaz, Nobel Yayın Dağıtım,2006 İşletme, Iktisat ve Sosyal Bilimler için Matematik, Ergün Eroğlu, Dora Yayıncılık, 2014

Course Assessment and Evaluation

Activities	Number	Contribution	Notes
Midterm Exam	1	%30	Written Exam
Project	1	%20	Individual Report
Final Exam	1	%50	Written Exam

ECTS Table

Content	Number	Hour	Total
Course Duration	14	2	28
Out-of-Class Work	14	2	28
Internet Browsing, Library Study	10	2	20
Topic Comprehension Applications	4	3	12
Project	1	15	15
Midterm Exam (Midterm Exam Duration + Midterm Exam Preparation)	1	20	20
Final Exam (Final Exam Duration + Final Exam Preparation)	1	25	25
		Total:	148
		Total / 30:	=148/30=4,93
		ECTS Credit:	5