

FINANCE MATHEMATICS

1	Course Title:	FINANCE MATHEMATICS	
2	Course Code:	ISL2203	
3	Type of Course:	Optional	
4	Level of Course:	First Cycle	
5	Year of Study:	2	
6	Semester:	3	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Ümit Gücenme Gençoğlu	
15	Course Lecturers:	Prof. Dr. Değer ALPER	
16	Contact information of the Course Coordinator:	umitgucenme@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	To give the mathematical knowledge related to infrastructure in creating an effective financial policy in the enterprises and obtaining appropriate investment and financing decisions.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To be able to make the cost calculations of borrowing transactions effectively.
		2	Understand the alternative ways of payment and their costs related to the lending and borrowing transactions in the enterprises.
		3	Understand the types of stocks and bonds and the valuation methods and to be able to use them in investment decisions.
		4	To be able to determine the value of investments during the issue of fixed asset investment decisions and choose from the alternatives.
		5	To be able to make mathematical analysis related to personal financial decision making.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Time Value of Money, Definition and Types of Interest		

2	Simple Interest: Internal and External Interest	
3	Simple Discount: Internal and External Discount Calculation and Equivalent Bonds	
4	Compound Interest: Nominal and Effective Interest Rates	
5	Compound Discount: Discount Calculation and Equivalent Bonds	
6	Practice Related to Money and Capital Markets Instruments: -Treasury Bill -Commercial Paper -Repo Valuation	
7	Payments (Annuity) and Types of Payments: Equally Consistent, Changing Consistent and Deferred Payments	
8	Case Study	
9	Payments (Annuity) and Types of Payments: Expedite, Constinuous, Constinuous and Deferred, Constinuous and Expedite Payments.	
10	Debt Payments	
11	Debt Payments	
12	Bond Valuation	
13	Stock Valuation	
14	Case Study	
22	Textbooks, References and/or Other Materials:	1. Zehra Başkaya, Finans Matematiği, Ekin Kitabevi. 2. Nurhan Aydın, Finans Matematiği. 3. Necati İşçil, Ticaret Aritmetiği ve Mali Cebir, Armağan Yayınevi.
23	Assesment	
TERM LEARNING ACTIVITIES		NUMBE R
Midterm Exam		1
Quiz		0
Home work-project		0
Final Exam		1
Total		2
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		
24	ECTS / WORK LOAD TABLE	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	4.00	56.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	26.00	26.00
Others	0	0.00	0.00
Final Exams	1	26.00	26.00
Total Work Load			176.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	0	0	3	3	0	0	5	0	5	0	0	0	0	0	0	0
ÖK2	0	3	3	3	0	0	4	0	5	0	0	0	0	0	0	0
ÖK3	0	0	3	0	0	0	4	0	5	0	0	0	0	0	0	0
ÖK4	0	0	3	3	0	4	5	0	5	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			