



Universidad  
Carlos III de Madrid

COURSE: FINANCIAL MATHEMATICS

DEGREE: FINANZAS Y CONTABILIDAD

YEAR:1

TERM:2

### WEEKLY PROGRAMMING

WEEK	SESSION	DESCRIPTION	GROUPS		Date	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINAR		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS Maximum 7 H
1	1	COURSE PRESENTATION. INTRODUCTION. FINANCIAL TRANSACTION, DATED PAYMENTS		x	29/1/2013	READ CLASS NOTES	1,5	3
1	2	FINANCIAL LAW, FINANCIAL SUM, FINANCIAL FACTOR	x		31/1/2013		1,5	
2	3	EXERCISES WITH FINANCIAL EQUIVALENCE, FINANCIAL SUM, COMPUTATION OF PRESENT AND FUTURE VALUE		x	5/2/2013	READ CLASS NOTES	1,5	4
2	4	CAPITALIZATION LAWS: SIMPLE, COMPOUND CAPITALIZATION, SPLIT INTEREST	x		7/2/2013	READ CLASS NOTES	1,5	
3	5	EXERCISES: EQUIVALENT RATES OF INTEREST, APPLICATIONS TO SIMPLE AND COMPOUND CAPITALIZATION		x	12/2/2013	READ CLASS NOTES	1,5	7
3	6	CLASSIC DISCOUNTING LAWS: SIMPLE DISCOUNTING, COMMERCIAL DISCOUNTING, COMPOUND DISCOUNTING	x		14/2/2013	PREPARATION FOR TEST 1	1,5	
4	7	TEST 1		x	19/2/2013	READ CLASS NOTES	1,5	4
4	8	FINANCIAL TRANSACTIONS: DEFINITION, CLASSIFICATION, (METHODS FOR CALCULATION MATHEMATICAL RESERVE)	x		21/2/2013		1,5	
5	9	EXERCISES		x	26/2/2013	READ CLASS NOTES	1,5	4
5	10	EFFECTIVE RATE IN A FINANCIAL TRANSACTION: EFFECTIVE APR, AVERAGE EFFECTIVE RATE, TERMS OF A FINANCIAL TRANSACTION, REAL EFFECTIVE APR	x		28/2/2013	PREPARATION OF EXERCISES FOR CLASS 10	1,5	
6	11	EXERCISES ON EFFECTIVE RATE, SHORT TERM TRANSACTIONS		x	5/3/2013	READ CLASS NOTES FOR CLASS 11	1,5	7
6	12	SHORT TERM FINANCIAL ASSETS: TREASURY BILLS, CORPORATE Bonds	x		7/3/2013	PREPARATION FOR TEST 2	1,5	
7	13	--- WORK AT HOME ---		x	12/3/2013	READ CLASS NOTES	1,5	7

7	14	ANNUITIES (I): CONCEPTS, CLASSIFICATION LEVEL ANNUITIES, DIFFERENCES BETWEEN ANNUITIES-IMMEDIATE AND ANNUITIES-DUE	X		14/3/2013	READ CLASS NOTES	1,5	7
8	15	TEST 2		X	19/3/2013	READ CLASS NOTES	1,5	4
8	16	ANNUITIES (II): DEFERRED AND ANTICIPATED ANNUITIES, COMPOUND VARIABLE ANNUITIES, PERPETUITIES	X		21/3/2013	PREPARATION OF EXERCISES FOR CLASS 16	1,5	
9	17	EXERCISES WITH ANNUITIES		X	2/4/2013	READ CLASS NOTES FOR CLASS 17	1,5	5
9	18	ANNUITIES (III)	X		4/4/2013	READ CLASS NOTES	1,5	
10	19	EXERCISES WITH ANNUITIES		X	9/4/2013	READ CLASS NOTES	1,5	7
10	20	VALUING COMMON STOCK AND BONDS: BOND PRICES, ACCRUED INTEREST, CLEAN AND DIRTY PRICE, YIELD STOCK PRICES: DISCOUNTED DIVIDEND MODEL	X		11/4/2013		1,5	
11	21	EXERCISES WITH BONDS AND STOCKS, COMPUTING PRICES		X	16/4/2013	READ CLASS NOTES FOR CLASS 21	1,5	4
11	22	LOANS: SIMPLE LOANS, AMERICAN METHOD, CONSTANT PAYMENT METHOD	X		18/4/2013	PREPARATION OF EXERCISES FOR CLASS 22	1,5	
12	23	TEST #3		X	23/4/2013	PREPARE TEST	1,5	4
12	24	LOANS: FRENCH METHOD, CALCULATIONS WITH CHANGING INTEREST RATE, EARLY CANCELLATION, DEFERMENTS, EFFECTIVE INTEREST RATE	X		25/4/2013		1,5	
13	25	LOAN EXERCISES		X	30/4/2013	PREPARE TEST	1,5	7
14	26	LOAN EXERCISES		X	7/5/2013	PREPARE TEST	1,5	
SUBTOTAL							42	+ 71 = 113
15		Tutorials, handing in, etc						4
16- 18		Assessment					3	30
TOTAL							150	