uc3m | Universidad Carlos III de Madrid
Vicerrectorado de Estudios
Apoyo a la docencia y gestión del grado

COURSE: Linear Algebra		
DEGREE: Physics Engineering	YEAR: 2019-20	TERM: 1

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	TEACHING (mark X) LECTURES	TEACHING (mark X) SEMINARS	SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	Complex numbers				Study and understanding of the topics covered in the lecture	1,66	6,5
	2	Exercises on complex numbers				Solution of selected exercises	1,66	
2	3	Matrix Algebra				Study and understanding of the topics covered in the lecture (ND 1)	1,66	6,5
	4	Exercises on matrix algebra				Solution of selected exercises	1,66	
3	5	Systems of linear equations				Study and understanding of the topics covered in the lecture (ND3)	1,66	6,5
	6	Exercises on systems of linear equations				Solution of selected exercises	1,66	
4	7	Systems of linear equations				Study and understanding of the topics covered in the lecture (ND4)	1,66	6,5
	8	Exercises on systems of linear equations				Solution of selected exercises	1,66	
5	9	Vector spaces				Study and understanding of the topics covered in the lecture (ND 5.1-5.3)	1,66	6,5
	10	Exercises on vector spaces				Solution of selected exercises	1,66	
6	11	Vector spaces				Study and understanding of the topics covered in the lecture (ND 5.4-5.6)	1,66	6,5
	12	Partial tests on matter covered on weeks 1-4				Test	1,66	
7	13	Vector spaces				Study and understanding of the topics covered in the lecture (ND 5.7-5.8)	1,66	6,5
	14	Exercises on vector spaces				Solution of selected exercises	1,66	
8	15	Orthogonality				Study and understanding of the topics covered in the lecture (ND 5.9)	1,66	6,5
	16	Exercises on orthogonality				Solution of selected exercises	1,66	
9	17	Review on vector spaces and orthogonality				Study and understanding of the topics covered in the lecture (ND 4 - 5)	1,66	6,5
	18	Exercises on vector spaces and orthogonality				Solution of selected exercises	1,66	
10	19	Linear transformations				Study and understanding of the topics covered in the lecture (ND 6)	1,66	6,5
	20	Exercises on linear transformations				Solution of selected exercises	1,66	
11	21	Eigenvalues and eigenvectors				Study and understanding of the topics covered in the lecture (ND 7)	1,66	6,5
	22	Partial tests on matter covered on weeks 5-9				Test	1,66	
12	23	Eigenvalues and eigenvectors				Study and understanding of the topics covered in the lecture (ND 8)	1,66	6,5
	24	Exercises on eigenvalues and eigenvectors				Solution of selected exercises	1,66	
13	25	Singular value decomposition and pseudoinverse				Study and understanding of the topics covered in the lecture (ND 8)	1,66	6,5
	26	Exercises on singular value decomposition				Solution of selected exercises	1,66	
14	27	Review material covered from week 9				Study and understanding of the topics covered in the lecture	1,66	6,5
	28	Exercises on eigenvalues and eigenvectors, least squares and SVD				Solution of selected exercises	1,66	
	29	General review				Final exam preparation	1,66	3,25
						Subtotal 1	**48**	**94**
						Total 1 *(Hours of class plus student homework)*	**142**	
15		Tutorials, handing in, etc	X				3,6	-
16								
17		Assessment					4	10
18								
						Subtotal 2	**8**	**10**
						Total 2 *(Hours of class plus student homework)*	**18**	

TOTAL (*Maximun 160 horas*)	**160**