



**DENOMINACIÓN ASIGNATURA: CALCULUS II**

**GRADO:** Ingeniería Aeroespacial

**CURSO:** Primero

**CUATRIMESTRE:** Segundo

PLANIFICACIÓN SEMANAL DE LA ASIGNATURA										
SEMANA	SESIÓN	DESCRIPCIÓN DEL CONTENIDO DE LA SESIÓN	GRUPO (marcar X)		Indicar espacio distinto de aula (aula informática, audiovisual, etc.)	Indicar SI/NO es una sesión con 2 profesores	TRABAJO SEMANAL DEL ALUMNO			
			GRANDE	PEQUEÑO			DESCRIPCIÓN	HORAS PRESENCIALES	HORAS TRABAJO (Max. 7h semana)	
1	1	Euclidean space.Cartesian,polar,cylindrical, and spherical coordinates.	X			NO	Properties of Euclidean space in 2 and 3 dimensions.Use and properties of different coordinate systems.	1,66	6	
1	2	Problems session 1.		X		NO	Problems and exercises corresponding to session # 1.	1,66		
2	3	Scalar and vector valued functions.Limits and continuity.	X			NO	Fundamental properties of vector valued functions.Multivariable limits and continuity.	1,66	6	
2	4	Problems session 3.		X		NO	Problems and exercises corresponding to session # 3.	1,66		
3	5	Differentiability.Partial derivatives.Directional derivatives.	X			NO	Relationships between continuity,partial derivatives, and differentiability.	1,66	6	
3	6	Problems sesión 5.		X		NO	Problems and exercises corresponding to	1,66		

						session # 5.		
4	7	Chain rule.	x			NO	Introduction of the Chain rule and Applications.	1,66
4	8	Problems session 7.		x		NO	Problems and exercises corresponding to session # 7.	1,66
5	9	Higher order derivatives.	x			NO	Introduction to higher order derivatives.	1,66
5	10	Problems session 9.		x		NO	Problems and exercises corresponding to session # 9.	1,66
6	11	Taylor's theorem. Extrema.	x			NO	Introduction of Taylor's theorem. Local and ,global extrema.	1,66
6	12	Problems session 11.		x		NO	Problems and exercises corresponding to session # 11.	1,66
7	13	Constrained extrema and Lagrange multipliers.	x			NO	Constrained extrema. Use of Lagrange multipliers.	1,66
7	14	Problems session 13.		x		NO	Problems and exercises corresponding to session # 13.	1,66
8	15	Double integrals.Applications.	x			NO	Introduction to double integrals and to their applications.	1,66
8	16	Problems session 15.		x		NO	Problems and exercises corresponding to session # 15.	1,66
9	17	Triple integrals. Applications.	x			NO	Introduction to triple integrals and to their applications.	1,66
9	18	Problems session 17.		x		NO	Problems and exercises corresponding to session # 17.	1,66
10	19	Line integrals.Applications.	x			NO	Introduction to line integrals and to their applications.	1,66
10	20	Problems session 19.		x		NO	Problems and exercises corresponding to session # 19.	1,66
11	21	Surface integrals. Applications.	x			NO	Introduction to surface integrals and to their applications.	1,66
11	22	Problems session 21.		x		NO	Problems and exercises corresponding to session # 21.	
11	23	Exam.					Exam of sessions 1 to 18.	1,66
12	24	Green's and Stoke's theorems. Applications.	x			NO	Introduction of Green's and Stoke's theorems and to their applications.	1,66
12	25	Problems session 24.		x		NO	Problems and exercises corresponding to session # 24.	1,66

13	26	Gauss' Theorem. Applications.	x			NO	Introduction of Gauss' divergence theorem and to its applications.	1,66						
13	27	Problems session 26.		x		NO	Problems and exercises corresponding to session # 26.	1,66	6					
14	28	Introduction to Ordinary Differential Equations	x			NO	Introduction to Linear Differential Equations.	1,66						
14	29	Problems session 28.		x		NO	Study and go through contents of sessions 19-28.	1,66	6					
								<b>Subtotal 1</b>	<b>48,33</b>					
									<b>84</b>					
<b>Total 1 (Horas presenciales y de trabajo del alumno entre las semanas 1-14)</b>								132,33						
15		Recuperaciones, tutorías, entrega de trabajos, etc												
16		Preparación de evaluación y evaluación												
17								3						
18									14,67					
								<b>Subtotal 2</b>	<b>3</b>					
									<b>14,67</b>					
<b>Total 2 (Horas presenciales y de trabajo del alumno entre las semanas 15-18)</b>								17,67						
<b>TOTAL (Total 1 + Total 2. Máximo 180 horas)</b>								<b>150</b>						