IDENTIFYING DATA

(*)Matemáticas: Cálculo I

Subject	(*)Matemáticas: Cálculo I
Code	V12G350V01104
Study programme	Grado en Ingeniería en Química Industrial

Descriptors	ECTS Credits		Choose	Year	Quadmester
	6		Basic education	1st	1st

Teaching language	Spanish Galician
Department	
Coordinator	Martínez Martínez, Antonio
Lecturers	Bajo Palacio, Ignacio
	Busto Ulloa, Saray
	Díaz de Bustamante, Jaime
	Estévez Martínez, Emilio
	Martínez Martínez, Antonio
	Martínez Torres, Javier
	Meniño Cotón, Carlos
	Prieto Gómez, Cristina Magdalena
	Rodal Vila, Jaime Alberto
	Vidal Vázquez, Ricardo
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Web	http://moovi.uvigo.gal/
General description	(*)O obxectivo desta materia é que o estudante adquira o dominio das técnicas básicas de cálculo diferencial nunha e en varias variables e de cálculo integral nunha variable que son necesarias para outras materias que debe cursar na titulación.

Skills

Code	
B3	CG3 Knowledge in basic and technological subjects that will enable students to learn new methods and theories, and provide them the versatility to adapt to new situations.
B4	CG4 Ability to solve problems with initiative, decision making, creativity, critical thinking and the ability to communicate and transmit knowledge and skills in the field of industrial engineering specializing in Industrial Chemistry.
C1	CE1 Ability to solve mathematical problems that may arise in engineering. Ability to apply knowledge about: linear algebra, geometry, differential geometry, differential and integral calculus, differential equations and partial differential equations, numerical methods, numerical algorithms, statistics and optimization.
D1	CT1 Analysis and synthesis.
D2	CT2 Problems resolution.
D6	CT6 Application of computer science in the field of study.
D9	CT9 Apply knowledge.
D14	CT14 Creativity.
D16	CT16 Critical thinking.

Learning outcomes

Expected results from this subject	Training and Learning Results		
(*)	B3	C1	D1
(*)	B3	C1	D1
(*)	B3	C1	D2
	B4		D9
			D14
			D16

		B3	C1	D1
		B4		D2
				D9
				D14
				D16
(*)		B4	C1	D2
				D6
				D9
				D16

Contents

Topic	
(*)	(*)
(*)Cálculo diferencial de funcións dunha e varias variables	(*)Cálculo diferencial de funcións reais dunha variable real Cálculo diferencial de funcións de varias variables reais
(*)Cálculo integral de funcións dunha variable	(*)A integral de Riemann. Cálculo de primitivas. Integrais impropias. Aplicacións da integral.

Planning

	Class hours	Hours outside the classroom	Total hours
Problem solving	20.5	30	50.5
Laboratory practical	12.5	5	17.5
Lecturing	32	39	71
Problem and/or exercise solving	3	3	6
Essay questions exam	2	3	5

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Problem solving	(*)O profesor resolverá problemas e exercicios tipo e o alumno terá que resolver exercicios similares.
Laboratory practical	(*)Empregaranse ferramentas informáticas para resolver exercicios e aplicar os coñecementos obtidos nas clases de teoría.
Lecturing	(*)O profesor exporá nas clases teóricas os contidos dá a materia.

Personalized assistance

Methodologies	Description
Problem solving	
Laboratory practical	

Assessment

	Description	Qualification	Training and Learning Results		
Problem and/or exercise solving	(*)Realizaranse probas escritas e/ou traballos.	40	B3 B4	C1	D1 D2 D6 D9 D14 D16
Essay questions exam	(*)Farase un exame final sobre os contidos da totalidade da materia.	60	B3 B4	C1	D1 D2 D9

Other comments on the Evaluation

The *avaliaciÃ�*n continuous *levarÃ� to cape envelope the previously exposed criteria. Those students that no receive *Ã� *avaliaciÃ�*n continuous *serÃ�*n evaluated with a final examination envelope the contents of the totality of the subject, that *suporÃ� 100% of the note.

The *avaliaciÃ�*n of the students in second announcement *consistirÃ� in one examination envelope the contents of the totality of the subject, that *suporÃ� 100% of the note.

Commitment *Ã�*tico:

"*EspÃ�*rase That the present student a behaviour *Ã�*tico suitable. In case to detect a behaviour no *Ã�*tico (copy, *plaxio, *utilizaciÃ�*n of devices *electrÃ�*nicos unlicensed, and others) will consider that the student no *reÃ�*ne the necessary requirements to surpass the subject. In this case to *cualificaciÃ�*n global in the present course *acadÃ�cat *serÃ� of *suspenso (0.0)."

Sources of information

Basic Bibliography

Burgos, J., **Cálculo Infinitesimal de una variable**, 2ª, McGraw-Hill, 2007

Burgos, J., **Cálculo Infinitesimal de varias variables**, 2ª, McGraw-Hill, 2008

Galindo Soto, F. y otros, **Guía práctica de Cálculo Infinitesimal en una variable**, 1ª, Thomson, 2003

Galindo Soto, F. y otros, **Guía práctica de Cálculo Infinitesimal en varias variables**, 1ª, Thomson, 2005

Larson, R. y otros, **Cálculo 1**, 9ª, McGraw-Hill, 2010

Larson, R. y otros, **Cálculo 2**, 9ª, McGraw-Hill, 2010

Stewart, J., **Cálculo de una variable. Trascendentes tempranas**, 7ª, Thomson Learning, 2014

Complementary Bibliography

García, A. y otros, **Cálculo I**, 3ª, CLAGSA, 2007

García, A. y otros, **Cálculo II**, 2ª, CLAGSA, 2006

Rogawski, J., **Cálculo. Una variable**, 2ª, Reverte, 2012

Rogawski, J., **Cálculo. Varias variables**, 2ª, Reverte, 2012

Tomeo Perucha, V. y otros, **Cálculo en una variable**, 1ª, Garceta, 2011

Tomeo Perucha, V. y otros, **Cálculo en varias variables**, 1ª, Garceta, 2011

Recommendations

Subjects that continue the syllabus

Mathematics: Calculus 2 and differential equations/V12G330V01204

Subjects that are recommended to be taken simultaneously

Mathematics: Algebra and statistics/V12G330V01103