# Universida<sub>de</sub>Vigo

#### Subject Guide 2023 / 2024

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	matemáticos aplicados á enxeñ	aria biomedica			
Subject	(*)Métodos				
	matemáticos aplicados á				
	enxeñaria				
	biomédica				
Code	V04M192V01102				
Study	Máster				
programme	Universitario en				
	Ingeniería				
	Biomédica				
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Department					
Coordinator	Fernández García, José Ramón				
ecturers	Bazarra García, Noelia				
	Fernández García, José Ramón				
E-mail	jose.fernandez@uvigo.es				
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Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	14	16	30
Problem solving	8	16	24
Practices through ICT	14	20	34
Objective questions exam	2	0	2
Report of practices, practicum and exter	nal practices 0	20.5	20.5
Essay questions exam	2	0	2
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\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

# Methodologies

	Description
Lecturing	In these sessions will develop those necessary theoretical concepts for the correct resolution of the problems of the Biomedical Engineering. They will carry out small exercises resolved that they allow to the student purchase the sufficient skills to be able to carry out to resolution of a real problem.
Problem solving	Solve practical problems
Practices through ICT	In the practices of laboratory will put in practical all the theoretical knowledges tackled, as well as the resolution of real practical cases, with the support of a computer software.

## Personalized assistance

Assessment					
	Description	Qualification	ιĪ	Frainin	g and
			Lea	arning	Results
Objective questions exam	Examination of the first corresponding block to the subjects 1 and	30	A5	B3	C2
	2				
Report of practices,	Report of practices with the resolution of a practical case by part	30	A5	B3	C2
practicum and external	of the student that evaluates all the block of practices of				
practices	computer with the computer support		_		
Essay questions exam	Final examination where tackles all the content of the subject	40	A5	B3	C2

## Other comments on the Evaluation

Sources of information
Basic Bibliography
A. Cañada, Series de Fourier y aplicaciones, Ediciones Pirámide, 2002
I. Peral, Primer curso de Ecuaciones en Derivadas Parciales, Addison-Wesley,, 1995
D. G. Zill y M. R. Cullen, Ecuaciones Diferenciales, McGraw-Hill, 2008
Complementary Bibliography
R. Churchil y J. Brown,, Fourier series and boundary value problems, McGraw Hill, 2008
L. Evans, Partial Differential Equations, Amer Math Soc, 2010
S. Larsson y V. Thomee, Partial differential equations with numerical methods, Springer, 2003

#### Recommendations

#### **Other comments**

It is recommended to make a review of the concepts tackled in Calculus subjects of first year of the Engineering degree, fundamentally the contents related with the Differential Equations.