SUBJECT TEACHING GUIDE

339 - Biomathematics

Master's Degree in Mathematics and Computing

Academic year 2026 - 2027

1. IDENTIFYING DATA					
Degree	Master's Degree in Mathematics and Computing			Type and Year	Optional. Year 1
Faculty	Faculty of Sciences				
Discipline					
Course unit title and code	339 - Biomathematics				
Number of ECTS credits allocated	3	Term		Semester based (2)	
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION
Name of lecturer	RAFAEL GRANERO BELINCHON
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Office	Facultad de Ciencias. Planta: + 1. DESPACHO (1049)
Other lecturers	AMPARO GIL GOMEZ

3.1 LEARNING OUTCOMES

4. OBJECTIVES

6. COURSE ORGANIZATION

CONTENTS	
1	The Hodking-Huxley model. Mathematical consequences and extensions. Examples.
2	Stochastic interpretatin of the diffusion equation. Random walk. Turing instability. Aggregation and chemotaxis. Free boundary problems.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessment	%
Computer lab exercises	Laboratory evaluation	No	Yes	100,00
TOTAL				100,00
Observations				
Observations for part-time students				
The part-time students are allowed to do the computer exercises remotely.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC