[GFN001] Foundations of Biomedicine

GENERAL INFORMATION

Studies	DEGREE IN ENGINEERING PHYSICS APPLIED TO INDUSTRY			**Subject**	Biomedical Engineering
Semester	1	**Course**	4	**Mention / Field of specialisation**	???
Character	OPTIONAL				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO
Credits	5	**Hours/week**	0	**Total hours**	1 class hours + 124 non-class hours = **125 total hours**

2030 AGENDA GOALS

PROFESSORS

AGINAGALDE UNANUE, MAIALEN
BURUAGA LAMARAIN, LOREA

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	*(No previous knowledge required)*

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GFR305 - Understand the structure and function of animal cells, as well as their life cycle and the mechanisms that regulate them, acquiring an integrated view at the molecular, structural and functional levels of cellular structures, as well as the basic principles of biomaterials	x			5
			Total:	5

KC: Knowledge or Content / SK: Skills / AB: Abilities

SECONDARY LEARNING RESULTS

RGF409 **[!]** ***Conoce la función de los orgánulos celulares, diferencia diferentes tipos de células y caracteriza los distintos tipos de tejidos***

LEARNING ACTIVITIES	CH	NCH	TH
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		42 h.	42 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 0 h.
NCH - Non-class hours: 42 h.
TH - Total hours: 42 h.

RGF411 **[!]** ***Conoce y comprende los fundamentos de la ciencia de los biomateriales***

LEARNING ACTIVITIES	CH	NCH	TH
Tutoring sessions and monitoring of training activities	1 h.		1 h.
Self-assessment tests in a context of autonomous and continuous learning		40 h.	40 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Self-assessment	100%	*(No mechanisms)*

CH - Class hours: 1 h.
NCH - Non-class hours: 40 h.

TH - Total hours: 41 h.

RGF410 **[!]** ***Describe la anatomía y fisiología general de los diferentes aparatos del cuerpo humano, siendo capaz de identificar y conocer los diferentes elementos que constituyen dichos sistemas***

LEARNING ACTIVITIES	CH	NCH	TH
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		42 h.	42 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

CH - Class hours: 0 h.
NCH - Non-class hours: 42 h.
TH - Total hours: 42 h.

CONTENTS

CELL BIOLOGY

1. Cell Structure2. Structure of the Cytoplasm and Organelles3. Cell Nucleus4. Tissues

ANATOMY AND PHYSIOLOGY

1. Generalities2. Anatomy and Physiology of the Musculoskeletal System3. Anatomy and Physiology of the Heart4. Nervous System

BIOMATERIALS

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Moodle Platform Technical articles	Biología fundamental y de la salud. Rafael Galán Romero y Rafael Torron teras Santiago Biología celular biomédica. Alfonso Calvo González Anatomía y Fisiología. 8ª edición. Patton Thibodeau