

Academic Year: (2024 / 2025)

Review date: 29-04-2024

Department assigned to the subject: Departamento de Neurociencia y Ciencias Biomédicas

Coordinating teacher: RIO HERNANDEZ, ARMANDO EMETERIO DEL

Type: Basic Core ECTS Credits : 6.0

Year : 1 Semester : 2

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to metabolism. Bioenergetics. Molecular mechanisms of intercellular communication. Main intracellular signalling pathways. Control of energy metabolism.
2. Oxidative metabolism. Mitochondrial energy metabolism.
3. Carbohydrate structure and metabolism.
4. Lipid structure and metabolism.
5. Metabolism of nitrogen compounds.
6. Integration and control of metabolism.

LEARNING ACTIVITIES AND METHODOLOGY

Classroom lectures.
 Face-to-face classes: reduced (workshops, seminars, case studies).
 Student individual work.
 Laboratory session.
 Final exam.

Seminars and lectures supported by computer and audiovisual aids.
 Practical learning based on cases and problems, and exercise resolution.
 Individual and group or cooperative work with the option of oral or written presentation.
 Individual and group tutorials to resolve doubts and queries about the subject.
 Internships and directed laboratory activities

ASSESSMENT SYSTEM

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40
Final exam.	
Continuous evaluation.	

BASIC BIBLIOGRAPHY

- Donald Voet, Judith G. Voet Biochemistry, International Adaptation, Wiley, 2021

ADDITIONAL BIBLIOGRAPHY

- Richard A. Harvey Lippincott's Illustrated Reviews: Biochemistry, Lippincott Williams & Wilkins, 2021