



Universidad de Jaén

FACULTY OF EXPERIMENTAL SCIENCES

Animal physiology 1

2024-2025
Grado en Biología



GRATIS



Acceso Mayores 40

Guías docentes UJA

Horarios de tutorías

Llamamientos PEvAU

Movilidad (Coordinador)

P.O.D.

Solicitud bilingüismo

Syllabus 2024-25 - 10212024 - Animal Physiology 1 (Fisiología animal I)

Caption

- Level 1: Tutorial support sessions, materials and exams in this language
- Level 2: Tutorial support sessions, materials, exams and seminars in this language
- Level 3: Tutorial support sessions, materials, exams, seminars and regular lectures in this language

[Back](#)[Full version \(Spanish\)](#)[English](#)

DEGREE:

Grado en Biología

FACULTY:

FACULTY OF EXPERIMENTAL SCIENCES

ACADEMIC YEAR:

2024-25

COURSE:

Animal Physiology 1

SYLLABUS

1. COURSE BASIC INFORMATION

NAME: Animal Physiology 1

CODE: 10212024

ACADEMIC YEAR: 2024-25

LANGUAGE: English

LEVEL: 2

ECTS CREDITS: 6.0

YEAR: 3

SEMESTER: PC

2. LECTURER BASIC INFORMATION

NAME: PRIETO GÓMEZ, M^a ISABEL

DEPARTMENT: U130 - CIENCIAS DE LA SALUD

FIELD OF STUDY: 410 - FISIOLÓGÍA

OFFICE NO.: B3 - 245

E-MAIL: iprieto@ujaen.es

P: +349532120

WEBSITE: <http://www10.ujaen.es/conocenos/departamentos/ciesal>ORCID: <https://orcid.org/0000-0003-0624-9504>

LANGUAGE: -

LEVEL: 2

NAME: CARRERA GONZÁLEZ, MARÍA DEL PILAR

DEPARTMENT: U130 - CIENCIAS DE LA SALUD

FIELD OF STUDY: 410 - FISIOLÓGÍA

OFFICE NO.: -

E-MAIL: -

P: -

WEBSITE: -

ORCID: -

LANGUAGE: -

LEVEL: 2

NAME: ARAGÓN VELA, JERÓNIMO

DEPARTMENT: U130 - CIENCIAS DE LA SALUD

FIELD OF STUDY: 410 - FISIOLÓGÍA

OFFICE NO.: -

E-MAIL: -

P: -

WEBSITE: -

ORCID: -

LANGUAGE: -

LEVEL: 2

3. CONTENT DESCRIPTION

Theoretical Program

Introduction to physiology. Main physiological systems. General mechanisms of regulation. Concept of homeostasis

Blood and others corporal fluids. Bloods volume and chemical composition. Blood cells types. Red and white blood cells and platelets formation. Physiology of Iron Metabolism. Haemostasis: Stages and How the Process Stops Blood Flow. Lymphatic system.

Digestive system. Feeding strategies in the animal kingdom. Salivary secretion and food intake. Gastric secretion and motility. The exocrine pancreas. Liver and gallbladder. Intestinal secretion and motility. Digestion and absorption. Nervous and hormonal regulation of gastrointestinal function. Nutrition, metabolism and thermoregulation.

Respiratory system. Respiratory strategies in the animal kingdom. Ventilation. Gas exchange in the lungs. Oxygen transport. Carbon dioxide transport. Nervous regulation of respiration. Chemical regulation of respiration

Excretory System. The nephron. Glomerular filtration. Tubular reabsorption. General mechanisms. Urea. Glucose. Tubular reabsorption of inorganic compounds. Tubular reabsorption of water. Tubular secretion. Regulation of acid-base balance

Practical program

Session 1: General concepts about physiology

Session 2: Digestive Physiology I

Session 3: Digestive Physiology II

Session 4: Respiratory Physiology I

Session 5: Respiratory Physiology II

Session 6: Renal Physiology I

Session 7: Test

SDGs INTEGRATION

These contents connect with the sustainable development goals of the United Nations (SDG). Mainly with regard to goals 2 (zero hunger) and 3 (GOOD health and well-being). Objectives 4 (quality education) and 5 (gender equality) will be promoted across the course.

4. COURSE DESCRIPTION AND TEACHING METHODOLOGY

Lectures Large group or teaching group 4.5 ECTS.

Methodology: presentation by the teacher of the contents of the thematic units of the subject.

Skills: CT1, CT3, CT9, CT10, CE21, CE22, CE23, CG3

Tutorial groups (small groups) 0.1 ECTS.

Methodology: Resolution of questions about the subject. The use of virtual media (platform for teaching) will be encouraged.

Skills: CT4, CT6, CT7, CT9, CT10, CE24, CE26

Practice 1.4 ECTS

Methodology: practical laboratory and computer rooms.

Skills: CT2, CT5, CT9, CT10, CE25

Students with special educational needs should contact the Student Attention Service (Servicio de Atención y Ayudas al Estudiante) in order to receive the appropriate academic support

5. ASSESSMENT METHODOLOGY

S2: Acquisition of theoretical knowledge (70%) will be evaluated through tests proposed along the course, or by the final exam. In each written test you must obtain at least 40% of maximum score to make an average. It is necessary 50% of the maximum rating assigned to this section.

CE21-CE22-CE23-CT10-CT2-CT3-CT7-CT9

S3: Continuous assessment (10%). Participation and number of passing tests that are proposed along the course.

CE21-CE22-CE23-CT10-CT2-CT3-CT7-CT9

S4: Continuous assessment (10%): Test about practices skills.

CE24-CE25-CE26-CG3-CT1-CT4-CT5-CT6-CT8

S1: Continuous assessment (10%). Proportionally to attendance at practice sessions.

CE24-CE25-CE26-CG3-CT1-CT4-CT5-CT6-CT8

6. BOOKLIST [\(Access the bibliography in the Library catalog\)](#)

MAIN BOOKLIST:

- Fisiología y fisiopatología Arthur C. Guyton, John E. Hall. Edition: -. Author: Guyton, Arthur C.. Publisher: McGraw-Hill - Interamericana ([Library](#))

- Human physiology : an integrated approach Dee Unglaub Silverthorn ; with contributions by Bruce R. Johnson ... [et al.]. Edition: 6th ed. Author: Silverthorn, Dee Unglaub 1948-. Publisher: Pearson Benjamin Cummings ([Library](#))
- Fisiología Linda S. Costanzo. Edition: 4ª ed.. Author: Costanzo, Linda S. Publisher: Elsevier ([Library](#))
- Constanzo Physiology. Edition: 7ª. Author: Linda S Constanzo. Publisher: Elsevier ([Library](#))

ADDITIONAL BOOKLIST:

- Fisiología animal Richard W. Hill, Gordon A. Wyse, Margaret Anderson. Edition: [3 ̇ed.]. Author: Hill, Richard W.. Publisher: Ed. Médica Panamericana ([Library](#))
- Animal physiology: adaptation and environment Knut Schmidt-Nielsen. Edition: 5th ed., reprinted. Author: Schmidt-Nielsen, Knut. Publisher: Cambridge University Press ([Library](#))

7. SUSTAINABLE DEVELOPMENT GOALS

Hambre cero

Salud y bienestar

Educación de calidad

Igualdad de género

DETAILED INFORMATION

INTEGRATION OF THE SDGS

These contents connect with the United Nations sustainable development goals (SDGs).

Mainly with regard to goals 2 (zero hunger) and 3 (health and well-being). In a transversal way

Objectives 4 (quality education) and 5 (gender equality) will be promoted.

8. VIRTUAL / CLASSROOM TEACHING SCENARIO

1) Methodology and activities

Lectures Large group or teaching group 4.5 ECTS. Face-to-face classes as long as socio-sanitary conditions allow it.

Methodology: presentation by the teacher of the contents of the thematic units of the subject.

Tutorial groups (small groups) 0.1 ECTS. 100% online

Methodology: Resolution of questions about the subject. The use of virtual media (platform for teaching) will be encouraged.

Practice 1.4 ECTS

Methodology: practical laboratory and computer rooms. Face-to-face classes as long as conditions allow it.

2) evaluation system

S2: Acquisition of theoretical knowledge (50%) will be evaluated through tests proposed along the course (presencial or online), or by the final exam. It is necessary 50% of the maximum rating assigned to this section.

S3: Continuous assessment (20%). Participation and number of passing tests that are proposed along the course.

S4: Continuous assessment (20%): Online test about practices skills.

S1: Continuous assessment (10%). Proportionally to attendance (presencial or online) at practice sessions.

3) Resources

University facilities and UJA Virtual Platform

4) Time Schedule

According to the Timeline published in the web of the Faculty

9. VIRTUAL TEACHING SCENARIO

1) Methodology and activities

Lectures Large group or teaching group 4.5 ECTS. 100% online (UJA platform)

Methodology: presentation by the teacher of the contents of the thematic units of the subject.

Tutorial groups (small groups) 0.1 ECTS. 100% online

Methodology: Resolution of questions about the subject. The use of virtual media (platform for teaching) will be encouraged.

Practice 1.4 ECTS

Methodology: videos about practical laboratory and computer programs. 100% online UJA platform.

2) evaluation system

S2: Acquisition of theoretical knowledge (50%) will be evaluated through tests proposed along the course (presencial or online), or by the final exam. It is necessary 50% of the maximum rating assigned to this section.

S3: Continuous assessment (20%). Participation and number of passing tests that are proposed along the course.

S4: Continuous assessment (20%): Online test about practices skills.

S1: Continuous assessment (10%). Proportionally to attendance (presencial or online) at practice sessions.

3) Resources

UJA Virtual Platform

4) Time Schedule

According to the Timeline published in the web of the Faculty

DATA PROTECTION CLAUSE (on line exams)

Institution in charge of data processing: Universidad de Jaén, Campus Las Lagunillas, s/n, 23071 Jaén

Data Protection Delegate: dpo@ujaen.es

Purpose: In accordance with the Universities Law and other national and regional regulations in force, carrying out exams and assessment tests corresponding to the courses students are registered in. In order to avoid frauds while sitting the exam, the exam will be answered using a videoconference system, being able the academic staff of the University of Jaén to compare and contrast the image of the person who is answering the exam with the student's photographic files. Likewise, in order to provide the exam with evidential content for revisions or claims, in accordance with current regulation frameworks, the exam will be recorded and stored.

Legitimacy: compliance with legal obligations (Universities Law) and other national and regional regulations currently in force.

Addressees: service providers who are the owners of the platforms where the exams are carried out and with whom the University of Jaén has signed the corresponding data access contracts.

Storage periods: those established in current in force regulations. In the specific case of exam videoconference recordings, not before the examination records and transcripts are closed or the exam can still be reviewed or challenged.

Rights: you can exercise your right of access, amendment, cancellation, opposition, suppression, limitation and portability by sending a letter to the postal or electronic address indicated above. In the event that you consider that your rights have been violated, you may submit a complaint to the Andalusian Council for Transparency and Data Protection www.ctpdandalucia.es

CLASS RECORDING CLAUSE PERSONAL DATA PROTECTION

Person in charge: Universidad de Jaén, Paraje Las Lagunillas, s/n; Tel.953 212121; www.ujaen.es

Data protection delegate (DPO): TELEFÓNICA, S.A.U. ; Email: dpo@ujaen.es

Procedure aim: To manage proper recordings of teaching sessions with the aim of facilitating learning process under a multimodal and/or online teaching

Period for record storage: Images will be kept during legal term according to regulations in force

Legitimacy: Data will be managed according to legal regulations (Organic Law 6/2001, December 21, on Universities) and given consent provided by selecting corresponding box in legal admission documents

Data recipients (transfers or assignments): Any person allowed to get access to every teaching modality

Rights: You may exercise your rights of access, rectification, cancellation, portability, limitation of processing, deletion or, where appropriate, opposition. To exercise these rights, you must submit a written request to the Information, Registration and Electronic Administration Service of the University of Jaen at the address above, or by e-mail to the address above. You must specify which of these rights you are requesting to be satisfied and, at the same time, you must attach a photocopy of your ID card or equivalent identification document. In case you act through a representative, legal or voluntary, you must also provide a document that proves this representation and identification. Likewise, if you consider that your right to personal data protection has been violated, you may file a complaint with the Andalusian Data Protection and Transparency Council www.ctpdandalucia.es

Campus Las Lagunillas s/n | 23071 - Jaén

[Soporte de guías docentes](#)

[Accesibilidad](#) | [Aviso legal](#) | [Sugerencias](#)

[Servicios académicos](#) | [Servicios administrativos](#) | [Extensión universitaria](#) | [Información general](#) | [Operaciones](#) |