



Course GS-11

ANATOMY & PHYSIOLOGY II (LABORATORY)

(45 class hours)

Prof. Dr. María José Peral Rubio (mjperal@us.es)

Prof. Dr. Alfonso Mate Barrero (mate@us.es)

Prof. Dr. Pablo García Miranda (pgarcia2@us.es)

Prof. Dr. María Dolores Vázquez Carretero (mvazquez1@us.es)

Objectives

This course is a continuation of Anatomy & Physiology I. The aim of this course is to apply and facilitate the understanding of the knowledge acquired during the lectures.

Syllabus

1. Human anatomy models of the systems.
2. Observation of histologic preparations under the light microscope.
3. Peripheral blood smear.
4. Differential White Blood Cell count.
5. Blood typing.
6. Serum iron determination.
7. Coagulation tests. Prothrombin time.
8. Reticulocyte count.
9. Hematocrit. Hemoglobin concentration.
10. Electrocardiography.
11. Arterial blood pressure measurement.
12. Pulmonary function test (spirometry). Simulation of obstructive pulmonary disease.
13. Urine test: biochemistry and microscopy.
14. PhysioEx: Cardiovascular System. Renal system and alterations in base-acid balance. Chemical and physical processes of digestion. Hormone replacement therapy.
15. Problem solving & quantitative problems concerning those physiological concepts presented during the lectures.

Assesment

Evaluation will consist of four exams that will be taken during laboratory sessions. The final grade will be based on the total score of the four exams administered.

Attendance and active participation in the laboratory is mandatory.

Bibliography

- McKinley, O'Loughlin and Bidle. Anatomy & Physiology: An Integrative Approach 2nd Edition. McGraw- Hill Education, 2016.
- Guyton and Hall. Textbook of Medical Physiology. JE Hall, 13th edition. Elsevier, 2016.