TEACHING GUIDE

HUMAN ANATOMY AND HISTOLOGY

ACADEMIC YEAR 2020-2021

(Last update: 14/07/2020)
(Document approved by Department of Anatomy: 14/07/2020)
(Document approved by Department of Histology: 07/07/2020)

MODULE	CONTENT	YEAR	TERM	CREDITS	TYPE
BASIC FORMATION	HUMAN ANATOMY AND HISTOLOGY	1st	1st	6	Compulsory

LECTURE(S)	CONTACT INFORMACION (Postal address, telephone number, email address)
Dr. D. José Carlos Prados (Anatomy) email: jcprados@ugr.es Teleph.: 958 248 819 Dr. D. Francisco Archilla Peña (Anatomy) email: farchilla@ugr.es Teleph.: 958 249 850 Dr. D. Francisco Arrebola Vargas (Histology) email: fav@ugr.es Teleph. 958 243 515	Department of Anatomy. Faculty of Medicine. http://anatomiaeh.ugr.es email: anatomiaeh@ugr.es Department of Histology. Faculty of Medicine. http://hsitología.ugr.es email: hsitologia@ugr.es **TUTORING AND MEETINGS** Prof. Prados: http://anatomiaeh.ugr.es/pages/docencia/tutorias Prof. Archilla: http://anatomiaeh.ugr.es/pages/docencia/tutorias Prof. Arrebola: http://histologia.ugr.es/departamento/index.php/personal.html
DEGREE WITHIN THE SUBJECT IS TAUGHT	
Degree in Human Nutrition and Dietetics Double Degree in Human Nutrition and Dietetics & Food Sciences and Technology	
PREREQUISITES and/or RECOMMENDATIONS (if necessary)	
Only those required for admission.	

BRIEF ACCOUNT OF THE SUBJECT PROGRAMME (ACCORDING TO VERIFICA PROGRAMME)

Module 1: Basic Formation: Structure and function of the human body

GENERALITIES AND PARTICULAR COMPETENCES

General competences (GC)

CG1.2 Develop the profession with respect for other health professionals, acquiring skills for teamwork.

CG8.1 Acquire basic training for the research activity, being able to formulate hypotheses, collect and interpret information for problem solving using the scientific method, and understanding the importance and limitations of scientific thinking in health and nutrition.

Specific Competences (SC).

CEM1.2 Know the structure and function of the human body from the molecular level to the whole organism, at different stages of life.

OBJECTIVES (EXPRESSED IN TERMS OF EXPECTED RESULTS OF THE TEACHING PROGRAMME)

Know the macroscopic and microscopic structural organization of the human body at different stages of life.

DETAILED SUBJECT SYLLABUS

HUMAN ANATOMY

FIRST PART

LESSON 1. INTRODUCTION: CONCEPTS; ANATOMICAL TERMINOLOGY
LESSON 2. GENERAL ANATOMY. NEUROLOGY; GENERAL CONCEPTS. SPLASHNOLOGY. GENERAL CONCEPTS.; MUSCULOSKELETAL SYSTEM. GENERAL CONCEPTS.
LESSON 3. NERVOUS SYSTEM. CENTRAL NERVOUS SYSTEM.
LESSON 4. NERVOUS SYSTEM. PERIPHERAL NERVOUS SYSTEM AND AUTONOMIC NERVOUS SYSTEM.
LESSON 5. NERVOUS SYSTEM. TRACTS. GENERAL CONCEPTS.
LESSON 6. DIGESTIVE. STUDY OF MOUTH. ORAL CAVITY.
LESSON 7. DIGESTIVE SYSTEM. TEETH. TONGUE. SALIVARY GLANDS
LESSON 8. DIGESTIVE SYSTEM. STUDY OF PHARYNX AND ESOPHAGUS.
LESSON 9. DIGESTIVE SYSTEM. STUDY OF STOMACH AND DUODENUM.
LESSON 10. DIGESTIVE SYSTEM. STUDY OF LIVER AND BILIARY TRACT.
LESSON 11. DIGESTIVE SYSTEM. STUDY OF PANCREAS.
LESSON 12. DIGESTIVE SYSTEM. STUDY OF JEJUNUM AND ILEUM.
LESSON 13. DIGESTIVE SYSTEM. STUDY OF INTESTINE.

SECOND PART

LESSON 14. CARDIOCIRCULATORY SYSTEM. HEART. CARDIAC CAVITY SYSTEM. CARDIAC CONDUCTION SYSTEM.
LESSON 15. CARDIOCIRCULATORY SYSTEM. ARTERIAL AND VEIN SYSTEM. LYMPHATIC SYSTEM: COLLECTORS.
LESSON 16. RESPIRATORY SYSTEM. RESPIRATORY TRACT. LUNGS. PLEURA. VASCULAR SYSTEM
LESSON 17. URINARY SYSTEM. KIDNEY AND URINARY TRACT.
LESSON 18. GENITAL SYSTEM. STUDY OF MALE AND FEMALE GENITAL SYSTEMS.
LESSON 19. MUSCULOSKELETAL SYSTEM (I). TRUNK, HEAD AND NECK.
LESSON 20. MUSCULOSKELETAL SYSTEM (II). UPPER AND LOWER EXTREMITY.

PRACTICAL PROGRAM

Practice 1: Basic anatomy of the brain and spinal cord. Osteology related.
Practice 2: Basic anatomy of the digestive system.
Practice 3: Basic Anatomy of the cardiovascular system (heart) and respiratory (tract and lungs). Osteology related.
Practice 4: Basic anatomy of the urinary system.

SEMINARS

Autonomous work.

HUMAN HISTOLOGY

THEORETICAL SYLLABUS

Introduction

LESSON 1. Concept of Human Histology.

General Human Histology

LESSON 2. Epithelial tissue. Generalities. Epithelial tissue lining: generalities and classification. Glandular epithelial tissue: generalities and classification.

LESSON 3. Connective tissue. Generalities. Connective tissue components: cells and extracellular matrix. Varieties of connective tissue.

LESSON 4. Adipose tissue. Generalities. Varieties of adipose tissue.

LESSON 5. Cartilaginous tissue. Generalities. Varieties of cartilaginous tissue.

LESSON 6. Bone tissue. Generalities. Components of bone tissue: cells and extracellular matrix. Varieties of bone tissue.

LESSON 7. Blood. Generalities. Formed elements. Haematopoiesis.

LESSON 8. Muscle tissue. Generalities. Skeletal muscle tissue: generalities and structure. Cardiac muscle tissue: generalities and structure. Smooth muscle tissue: generalities and structure.

LESSON 9. Nervous tissue. Generalities. Neuron. Glia. Nerve fibres.

Microscopic Human Organography

LESSON 10. General microscopic structure of the circulatory system. Generalities. Arteries. Capillaries. Veins. Heart.

LESSON 11. General microscopic structure of the digestive tract. Generalities. Esophagus. Stomach. Small intestine. Large intestine. Liver. Gallbladder. Exocrine pancreas.

LESSON 12. General microscopic structure of the respiratory system. Generalities. Windpipe. Bronchus. Bronchioles. Alveoli. Alveolar-capillary barrier.

LESSON 13. General microscopic structure of the urinary tract. Generalities. Kidney: nephron and membrane filtration. Ureter. Urinary bladder. Urethra.

LESSON 14. General microscopic structure of the endocrine system. Generalities. Pituitary gland. Pineal gland. Thyroid gland. Parathyroid glands. Kidney glands. Endocrine pancreas.

LESSON 15. General microscopic structure of organs of the senses: taste and smell. Generalities. Lingual papillae. Gustatory corpuscles. Olfactory segment.

PRACTICAL PROGRAM SYLLABUS

Histological processing samples for optical microscopy.

Observation and identification by light microscopy of human tissues.

SEMINARS

Autonomous tutored works.

READING

HUMAN ANATOMY

Basic books

- MANUAL DE ANATOMÍA HUMANA PARA NUTRICIÓN Y DIETÉTICA (I). J. PRADOS, F. ARCHILLA, C. MELGUIZO, C. VELEZ, M. RIVERA, ED. AVICAM, 2015.
- ESTRUCTURA Y FUNCION DEL CUERPO HUMANO.14ª ED. G.A THIBODEAU, S.A. ELSEVIER ESPAÑA, 2012
- GRAY.ANATOMIA PARA ESTUDIANTES. RL. DRAKE, A M.W. MITCHELL, A. W VOGL ED ELSEVIER. 3 EDICIÓN. MADRID 2015.

Atlas

- ATLAS DE ANATOMÍA HUMANA. SOBOTTA (PUTZ Y PABST). ED. MÉDICA PANAMERICANA. MADRID, 2000.
- ATLAS DE ANATOMÍA HUMANA 5ª ED F. H. NETTER , MASSON, 2011
- PROMETHEUS, TEXTO Y ATLAS DE ANATOMÍA. SCHÜNKE, SCHULTE Y SCHUMACHER. EDIT. MEDICA, 2015

Others books

- ANATOMIA HUMANA: DESCRIPTIVA, TOPOGRAFICA Y FUNCIONAL. 11ª ED.H. ROUVIERE; A.DELMAS. MASSON, 2005
- NOMENCLATURA ANATÓMICA ILUSTRADA. H. FENEIS. ED. MASSON. BARCELONA, 2006.

HUMAN HISTOLOGY

- HISTOLOGÍA BÁSICA. TEXTO Y ATLAS. Junqueira, L.C. y Carneiro, J. 12ª ed. 2015. EDITORIAL MÉDICA PANAMERICANA.
- ATLAS EN COLOR Y TEXTO DE HISTOLOGÍA. Gartner, L.P. y Hiatt, J.L. 6ª ed. 2015. EDITORIAL MÉDICA PANAMERICANA.
- TEXTO DE HISTOLOGÍA. ATLAS A COLOR. Gartner, L.P. 4ª ed.2017. EDITORIAL ELSEVIER.https://www.clinicalkey.com/meded/content/toc/3-s2.0-C20160020053 (desde IP de UGR y usuario registrado de ClinicalKey).
- STEVENS Y LOWE. HISTOLOGÍA HUMANA. Lowe, J.S., Anderson, P.G. y Anderson S.I. 5ª ed. 2020. EDITORIAL ELSERVIER. https://www.clinicalkey.com/student/content/book/3-s2.0-B9788491136279000230 (desde IP de UGR y usuario registrado de ClinicalKey).
- SOBOTTA HISTOLOGÍA. Welsch, U. 3ª ed. 2014. EDITORIAL MÉDICA PANAMERICANA.
- ROSS. HISTOLOGÍA. TEXTO Y ATLAS.Pawlina, W. 8ª ed. 2020. EDITORIAL WOLTERS KLUWER.
- GENESER HISTOLOGÍA. Brüel, A., Christensen, E.I., Tranum-Jensen, J., Qvortrup, K. y Geneser, F. 4ª ed. 2015. EDITORIAL MÉDICA PANAMERICANA.
- HISTOLOGÍA Y BIOLOGÍA CELULAR. Kierszenbaum, A.L. y Tres L.L. 5ª ed. 2020.EDITORIAL ELSERVIER.https://www.clinicalkey.com/student/content/book/3-s2.0-B9788491137733500021 (desde IP de UGR y usuario registrado de ClinicalKey).

RECOMMENDED INTERNET LINKS

HUMAN ANATOMY

- Department of Human Anatomy of the Granada University.
  http://anatomiaeh.ugr.es/pages/enlaces/index

- Anatomic Spanish Society.
  http://www.sociedadanatomica.es/

- Anatomy in Internet.
  thttp://www.meddean.luc.edu/lumen/MedEd/GrossAnatomy/anatomy.htm

- European Journal of Anatomy
  http://eurjanat.com/web/

HUMAN HISTOLOGY

- Microscopio Virtual, Universidad de Granada.
  http://150.214.37.106/WebDatabaseClient/dbWebAccount.aspx

- Virtual Histology. Stritch School of Medicine. Loyola University
  Chicago.http://www.meddean.luc.edu/lumen/MedEd/Histo/virtualhistology.htm

- Blue Histology. School of Anatomy and Human Biology. The University of Western Australia.
  http://www.lab.anhb.uwa.edu.au/mb140/

- Interactive Histology Atlas. Health Sciences Center. University of Oklahoma.
  https://www.ouhsc.edu/histology/