

26764 - Histology II (Special Histology)

Información del Plan Docente

Academic Year	2017/18
Faculty / School	104 - Facultad de Medicina 229 - Facultad de Ciencias de la Salud y del Deporte
Degree	304 - Degree in Medicine 305 - Degree in Medicine
ECTS	6.0
Year	2
Semester	First semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The methodology followed in this course is based on lectures, practice sessions, seminars and assignments.

Information regarding the course will be provided on the first day of class including the course syllabus, a detailed calendar of lectures, practice sessions, seminars and exams, teaching material and online support material. All this

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information will be available via Moodle.

The students will have an interactive DVD with the same histological preparations to which they have access in the practice sessions (Contamina P., Parra P. y García Rojo M., Atlas of Histology, Virtual Histological Preparations, Ed. University Press of Zaragoza, 1st ed., Interactive DVD, 2013). In addition, students have a website (wzar.unizar.es/acad/histologia) in which they can find an "Atlas of Histology" with the same histological preparations from the practice sessions.

5.2.Learning tasks

The course includes 6 ECTS organized according to:

- Lectures: the professor will present theoretical contents already available at the Moodle website. Sessions will last 50 minutes.
- Practice sessions: in the microscope room students will observe with the optical microscope histological samples.
- Seminars and assignments: in groups, students will prepare a seminar and elaborate an essay related to topics of the subject. Seminars will consist of discussing optical and electronic microphotography.

5.3.Syllabus

1. THEORETICALPROGRAM

CARDIOVASCULAR SYSTEM

Item 1.‐ Heart

Item 2.‐ Blood vessels. Lymphatic vessels.

LYMPHATIC SYSTEM

Item 3.‐ Overview of the Lymphatic System.

Item 4.‐ Thymus.

Item 5.‐ Lymph node. Mucosa-associated lymphatic tissue.

Item 6.‐ Spleen.

RESPIRATORY SYSTEM

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Item 7.‐ Respiratory tract.

Item 8.‐ Lung.

DIGESTIVE SYSTEM

Item 9.‐ Oral cavity. Oropharynx.

Item 10.‐ Esophagus. Stomach.

Item 11.‐ Intestine.

Item 12.‐ Salivary glands. Pancreas.

Item 13.‐ Liver. Gallbladder.

URINARY SYSTEM

Item 14.‐ Kidney.

Item 15.‐ Urinary tract.

MALE REPRODUCTIVE SYSTEM

Item 16.‐ Testis.

Item 17.‐ Genital ducts. Accessory sex glands. Penis.

FEMALE REPRODUCTIVE SYSTEM

Item 18.‐ Ovary.

Item 19.‐ Uterine tubes. Uterus. Vagina.

Item 20.‐ Mammary glands.

SENSE ORGANS

Item 21.‐ Eye.

Item 22.‐ Internal ear.

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Item 23. Olfactory mucosa. Taste buds.

CENTRAL NERVOUS SYSTEM

Item 24. Spinal cord.

Item 25. Cerebellum.

Item 26. Cerebral cortex.

ENDOCRINE ORGANS

Item 27. Hypophysis.

Item 28. Pineal gland.

Item 29. Thyroid gland. Parathyroid glands

Item 30. Adrenal glands.

2. LABORATORY SESSIONS

Item 1. Cardiovascular system

Item 2. Lymphatic system

Item 3. Respiratory system

Item 4. Digestive system I

Item 5. Digestive system II

Item 6. Urinary system

Item 7. Male reproductive system

Item 8. Female reproductive system

Item 9. Sense organs

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Item 10. Central nervous system

Item 11. Endocrine organs

5.4. Course planning and calendar

Details concerning the timetable, classroom and further information regarding this will be provided on the first day of class and will be available via Moodle.

5.5. Bibliography and recommended resources

Zaragoza:

BB [BB-Atlas] - Boya Vegue, Jesús. Atlas de histología y organografía microscópica / Jesús Boya Vegue . 3ª ed. Buenos Aires ; Madrid [etc.] : Editorial Médica Panamericana, 2010

BB [BB-Atlas] - Contamina Gonzalvo, Primitivo. Atlas de histología : preparaciones histológicas virtuales [Recurso electrónico] / Primitivo Contamina Gonzalvo, Pilar Parra Gerona, Marcial García Rojo . [Zaragoza] : Prensas Universitarias de Zaragoza, 2013

BB [BB-Atlas] - Ross, Michael H.. Atlas de histología descriptiva / Michael H. Ross, Wojciech Pawlina, Todd A. Barnash . Buenos Aires ; Madrid [etc.] : Editorial Médica Panamericana, cop. 2012

BB [BB-Atlas] - Young, Barbara. Histología funcional : texto y atlas en color / Barbara Young, Geraldine O'Dowd, Phillip Woodford. 6ª ed. Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier, D.L. 2014

BB [BB-TEXTO] - Ross, Michael H.. Histología : texto y atlas color con biología celular y molecular / Michael H. Ross, Wojciech Pawlina ; [traducción, Jorge Horacio Negrete] . 5ª ed. Buenos Aires [etc.] : Editorial Médica Panamericana, 2007

BC [BC-Atlas] - Kerr, Jeffrey B.. Atlas of functional histology / Jeffrey B. Kerr . London : Mosby, cop. 2000

BC [BC-Atlas] - Krstic, Radivoj V.. Human microscopic anatomy : an atlas for students of medicine and biology / Radivoj V. Krstic . Berlin ; New York : Springer-Verlag, cop. 1991

BC [BC-Atlas] - Kühnel, Wolfgang. Atlas color de citología e histología / Wolfgang Kühnel ; [traducción de Jorge Horacio Negrete] . 11ª ed., corr. y aum., [1ª ed. española, 1ª reimp.] Madrid : Editorial Médica Panamericana 2010.

BC [BC-TEXTO] - Biología celular y molecular / Harvey Lodish ... [et al.] ; supervisión de la traducción a cargo de : Norma B. Sterin de Speziale, Norberto A. Vidal . 5ª ed., 3ª reimp. Buenos Aires [etc.] : Editorial Médica Panamericana, 2009

BC [BC-TEXTO] - Gartner, Leslie P.. Histología básica / Leslie P. Gartner, James L. Hiatt . [1ª ed.] Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier, D.L. 2011

BC [BC-TEXTO] - Geneser, Finn. Histología : sobre bases biomoleculares / Finn Geneser ; [traducción, Karen Mikkelsen]

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. 3ª ed., 7ª reimp. Buenos Aires [etc.] : Editorial Médica Panamericana, 2007

BC [BC-TEXTO] - Histología : con correlaciones funcionales y clínicas / Dongmei Cui... [et al.] . Barcelona : Wolters Kluwer/Lippincott Williams & Wilkins, cop. 2011

BC [BC-TEXTO] - Kierszenbaum, Abraham L.. Histología y biología celular : introducción a la anatomía patológica / Abraham L. Kierszenbaum, Laura L. Tres ; [revisión científica, María Jesús Fernández Aceñero] . 4ª ed. Barcelona : Elsevier España, D.L. 2015

BC [BC-TEXTO] - Lowe, James Steven. Histología humana / James S. Lowe, Peter G. Anderson ; [revisión científica, Andrés Castell Rodríguez]. 4ª ed. Ámsterdam ; Madrid ; Barcelona [etc.] : Elsevier, D.L. 2015

Huesca:

BB Boya Vegue, Jesús. Atlas de histología y organografía microscópica / Jesús Boya Vegue . 3ª ed. Buenos Aires ; Madrid [etc.] : Editorial Médica Panamericana, 2010

BB Contamina Gonzalvo, Primitivo. Atlas de histología : preparaciones histológicas virtuales [Recurso electrónico] / Primitivo Contamina Gonzalvo, Pilar Parra Gerona, Marcial García Rojo . Zaragoza: Prensas Universitarias de Zaragoza, 2013

BB Contamina Gonzalvo, Primitivo. Prácticas de histología. Primer curso [Recurso electrónico] / Primitivo Contamina Gonzalvo, Pilar Parra Gerona, Marcial García Rojo [Zaragoza] : Prensas Universitarias de Zaragoza, 2011

BB Gartner, Leslie P.. Histología básica / Leslie P. Gartner, James L. Hiatt . - [1ª ed.] Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier, D.L. 2011

BB Gartner, Leslie P.. Texto atlas de histología / Leslie P. Gartner, James L Hiatt ; traducción, Martha Elena Araiza ; revisión técnica , Julio Sepúlveda Saavedra . 3ª ed. México D. F. [etc.] : McGraw-Hill Interamericana, cop. 2008

BB Geneser, Finn. Histología : sobre bases biomoleculares / Finn Geneser ; [traducción, Karen Mikkelsen] . 3ª ed., 7ª reimp. Buenos Aires [etc.] : Editorial Médica Panamericana, 2007

BB Junqueira, L. C. : Histología básica : texto y atlas / L. C. Junqueira, José Carneiro ; [colaboradores, Paulo Alexandre Abrahamsohn... (et al.)] . - 12ª ed. Buenos Aires ; Madrid [etc.] : Editoria Médica Panamericana, D.L. 2015

BB Kierszenbaum, Abraham L.. Histología y biología celular : introducción a la anatomía patológica / Abraham L. Kierszenbaum ; [revisión científica, María Jesús Fernández Aceñero] . 2ª ed. Barcelona [etc.] : Elsevier, cop. 2008

BB Kühnel, Wolfgang. Atlas color de citología e histología / Wolfgang Kühnel . 11ª ed. corr. y aum. Madrid [etc.] : Editorial Médica Panamericana, 2005 [[HISTOLOGIA]]

BB Ross, Michael H.. Histología : texto y atlas color con biología celular y molecular / Michael H. Ross, Wojciech Pawlina ; [traducción, Jorge Horacio Negrete] . 5ª ed., 2ª reimp. Buenos Aires [etc.] : Editorial Médica Panamericana, 2008

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BB Young, Barbara. Histología funcional : texto y atlas en color / Barbara Young, John W. Heath ; con la colaboración de Alan Stevens , James S. Lowe ; dibujos realizados por Philip J. Deakin . 4ª ed., [3ª reimp.] Barcelona [etc.] : Elsevier Science, D.L. 2007 [[HISTOLOGÍA]]

BC Krstic, Radivoj V.. Human microscopic anatomy : an atlas for students of medicine and biology / Radivoj V. Krstic . 3ª ed. Berlin ; New York : Springer-Verlag, cop. 1997