



UNIVERSITÀ DI PISA HISTOLOGY AND EMBRYOLOGY

AMELIO DOLFI

Anno accademico

2017/18

CdS

MEDICINE AND SURGERY

Codice

056EE

CFU

9

Moduli	Settore/i	Tipo	Ore	Docente/i
ISTOLOGIA ED EMBRIOLOGIA a	BIO/17	LEZIONI	75	AMELIO DOLFI
ISTOLOGIA ED EMBRIOLOGIA b	BIO/17	LEZIONI	37.50	NUNZIA BERNARDINI

Learning outcomes

Knowledge

The student who successfully completes the course will acquire the skill to identify human tissues and will be able to demonstrate advanced knowledge of human cell and tissue morphology, from the microscopic description to their molecular aspects; also the most relevant histophysiological implications will become part of student awareness. Furthermore, the student will acquire knowledge about gametogenesis, human embryo development starting from the early stages up to the formation of organs and apparatus of the human body.

Assessment criteria of knowledge

The student will be assessed on his/her skill to discuss the main course contents using an appropriate terminology. - During the oral examination the student must be able to demonstrate his/her knowledge of the course material and to discuss the reading matter thoughtfully and with propriety of expression. - The student's ability to explain correctly the main topics presented during the course at the board will be assessed. - In the written exam (2 essay questions), the student must demonstrate his/her knowledge of the course material and to organize an effective and correctly written reply.

Methods:

- Final oral exam
- Periodic written tests

Further information:

Teaching methods

Delivery: face to face

Learning activities:

- participation in discussions
- individual study

Attendance: Mandatory

Teaching methods:

- Lectures
- laboratory

Syllabus

General cytology; human gametogenesis; fertilization and embryo implantation and decidualization; blastocyst, inner mass and stem cells, primitive embryonic layers: ectoderm/endoderm and their derivatives; mesoderm and gastrulation; neural tube; yolk sac, amnion, placenta and fetal-maternal interaction in pregnancy; molecular mechanisms of embryo development; transformation of trilaminar embryo during the IV week of development; tissue differentiation and onset of the organs: nervous system, pharyngeal and oral apparatus, heart and vascular system, respiratory organs, kidney and urogenital system, formation of the body cavities, skin and musculoskeletal apparatus. Morphofunctional aspects of human tissues: epithelia, nervous tissue, muscular tissues, connective tissue, bone, cartilage and blood

Bibliography

- MONESI; Istologia, Casa editrice Piccin, VI edizione, 2012 - De FELICI et al.; Embriologia Umana: morfogenesi processi molecolari aspetti clinici, Casa editrice Piccin, 2009 Recommended Text atlas: - ROSS MH, PAWLINA W, TA BARNASH; Atlante di Istologia e Anatomia Microscopica, Casa editrice Ambrosiana, 2010 - KERR; Atlante di Istologia Funzionale, Casa editrice Ambrosiana, 2012 - BANI, BANI SACCHI;



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Atlante di Istologia, Casa editrice Morelli - COCHARD; Atlante di embriologia umana di Netter, Casa editrice Elsevier-Masson Recommended reading includes the following texts: - Alberts et al; Biologia molecolare della cellula, Casa editrice Zanichelli, V edizione, 2009 - BANI et al.; Istologia Umana, Casa editrice Idelson-Gnocchi, - SADLER; Embriologia medica di Langman, Casa editrice Masson, 2012 - LARSEN; Embriologia Umana, Casa editrice Idelson Gnocchi - ARMATO et al; Embriologia umana, Casa editrice Idelson Gnocchi, 2012 - MOORE PERSAUD; Lo sviluppo prenatale dell'uomo; Casa editrice EdiSes

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