

Program of Study : English Programme – General Medicine

Course : **Histology and Embryology 2**

Abbreviation : HIE/VAA12

Schedule : 45 hours of lectures
45 hours of exercises

Course Distribution : 2nd year, 3rd semester

Number of Credits : 8

Course Form : Lectures, practicals



Academic Year: **2022 - 2023**

LECTURES

Lecturer: MUDr. Radka Lichnovská, Ph.D.; MUDr. Běla Erdösová, Ph.D.,
doc. MUDr. Jiří Dostál, Ph.D.

Study: **Continuous** (3 hrs/week)

	DATE/ 2022	SUBJECT	No of HRS	TEACHER
1	22.09.	Development of the Digestive Tube and Organs Associated with the Digestive Tract (Liver, Gallbladder and Pancreas).	3	Lichnovská
2	29.09.	Microscopic Anatomy of the Liver Parenchyma. Development of Respiratory system. Microscopic Anatomy of the Lung Parenchyma. <i>Note: Histologic architecture of the respiratory airways is discussed in more details in the appropriate practical session of winter semester.</i>	3	Lichnovská
3	06.10.	The Endocrine System. (Microscopic Anatomy & Development)	3	Lichnovská
4	13.10.	The Urinary System. (Microscopic Anatomy)	3	Lichnovská
5	20.10.	The Male Reproductive System. (Microscopic Anatomy)	3	Lichnovská
6	27.10.	The Female Reproductive System. (Microscopic Anatomy)	3	Erdösová
7	03.11.	Development of the Urogenital System.	3	Erdösová
8	10.11.	Development of the Nervous System. <i>Note: The histologic architecture was discussed in more details in the session named Nerve tissue (summer semester).</i>	3	Lichnovská

9	17.11.	HOLIDAY	3	Lichnovská
10	24.11.	Fetal Membranes & Placenta. (Microscopic anatomy & Development)	3	Lichnovská
11	01.12.	Development of Cardiovascular system.	3	Lichnovská
12	08.12.	In Vitro Fertilization. Introduction to Clinical Embryology.	3	Dostál
13	15.12.	Overview of the Development of Sensory Organs.	3	Erdösová Lichnovská
14	22.12.	Selected topics (Part I)	3	Lichnovská
15	05.01. 2023	Selected topics (Part II)	3	Lichnovská

PRACTICALS

Course

Coordinator: MUDr. Radka Lichnovská, Ph.D.

Teachers: MUDr. Gvantsa Kharraishvili, Ph.D.

Study: **Continuous** (3 hrs./week)

	DATE/ 2022	SUBJECT	No of/ HRS.
1	23.09.	The Digestive tube (Esophagus, Stomach, Small & Large Intestines).	3
2	30.09.	Organs Associated with the Digestive Tract (Liver, Gallbladder and Pancreas). Revision of the Histology of Salivary Glands.	3
3	07.10.	The Respiratory System. <u>QUIZ No 4: DIGESTIVE SYSTEM</u>	3
4	14.10.	The Endocrine System.	3
5	21.10.	The Integumentary System.	3
6	28.10.	HOLIDAY	3
7	04.11.	The Urinary System. <u>QUIZ No 5: ENDOCRINE, RESPIRATORY & INTEGUMENTARY SYSTEMS</u>	3

8	11.11.	The Male Reproductive System.	3
9	18.11.	The Female Reproductive System - Part I	3
10	25.11.	The Female Reproductive System - Part II <i>Note: Self-study of the nervous system. Appropriate slides will be reviewed during practical sessions No 9 and No 10.</i>	3
11	02.12.	Special Sense Organs. Sensory Receptors (<i>Revision of slides.</i>) <u>QUIZ No 6: UROGENITAL SYSTEM</u>	3
12	09.12.	Review of Systems-Based Histology.	3
13	16.12.	<u>QUIZ No 7: SEMESTER 2 CREDIT TEST</u>	3
14	23.12.	Credits.	3
15	06.01. 2023	Credits (<i>cont.</i>). Substitutions.	3

Completed by: Credit and Final Examination.

Requirements: CREDIT REQUIREMENTS

- Practical courses are compulsory.

According to the Dean's Directive LF-B-18/14 to the Study and Examination Code of Palacký University in Olomouc, a student is allowed

to substitute one third of compulsory sessions (a maximum of **5** sessions).

A student is allowed to miss **one** compulsory session without the need to provide an excuse or substitute such a practical. If a student fails to attend any further sessions (**4**) due to health or other serious reasons, he/she must attend substitute classes provided that he/she has provided a satisfactory excuse.

- All in-course quizzes and semester credit test are compulsory. (Minimum passing level for each test is **70%**). All missing and failed quizzes must be resat. Max. 3 attempts on PC are allowed. Students who fail all 3 attempts will be tested orally. Students who fail the oral retake will not meet the requirements necessary to obtain the credit of Histology and Embryology 2.

- Late admission to a compulsory practical session is automatically treated as absence with the necessity of substitution.

- The use of mobile phones and other communication devices during practical classes is prohibited. Any breach hereof will be recorded as an infraction of the Study and Examination Code of Palacký University and student will be expelled from the class and required to make up for the missed class.

(See Directive of the Dean of the Faculty of Medicine and Dentistry of Palacký University LF-b-18/14).

Note:

Attendees of practical laboratory are expected to come prepared to sessions having a basic theoretical knowledge of the system in the study. At any session during this semester, students may be requested to answer questions related to the recent and past histology topics (see more detailed information in "Requirements_GM_D" available at MOODLE website).

E-learning:

Histology slides are observed in a digital form (virtual slides) although a set of classical glass slides is also available during each session. Students are encouraged to make several screen prints of observed structures during sessions and save them in their own PowerPoint presentations with appropriate labels and notes. The database of Histology practical slides is also accessible on: <http://158.194.8.20/> (login: User name: student / Password: student, Database: HISTOLOGY_PRACTICAL).

Exam: **COMPUTER-BASED FINAL EXAM TEST**

- 100 questions (MCQ)
- Minimal passing level is 70%
- Total time is 120 minutes.

All examination attempts are done on the computers. Three attempts are allowed, regular (1) + re-exam (2).

The use of mobile phones, laptops or any electronic devices and lateral communication during examination are strictly prohibited. Any breach hereof will result in the F grade and will be recorded as cheating.

(See Directive of the Dean of the Faculty of Medicine and Dentistry of Palacký University (LF-b-18/14))

ASSESSMENT OF THE FINAL EXAM TEST

% CORRECT	MARK
94 - 100	A
88 - 93	B
82 - 87	C
76 - 81	D
70 - 75	E
0 - 69	F

Literature: **Compulsory:**

1. Mescher AL: Junqueira's Basic Histology, McGraw-Hill Medical, 13th ed., 2013 or later eds.

2. Sadler TW: Langman's Medical Embryology, Lippincott Williams & Wilkins 12th ed., 2012 or later eds.

3. Handouts of lectured topics available at website: <https://moodle.upol.cz/> (English version)

Practical session virtual slide guides and supporting documents (pdf).

Recommended:

4. Wheater's Functional Histology, Elsevier, 4th ed. or later eds.

5. Cochard LR Netter's Atlas of Human Embryology, Saunders Elsevier, Revised ed., 2012

6. The Developing Human, Elsevier, 11th ed., 2018