

**Program of Study** : English Programme – General Medicine

**Course** : **Histology and Embryology 1**

**Abbreviation** : HIE/VAB11

**Schedule** : 30 hours of lectures  
: 45 hours of practicals

**Course Distribution** : 1<sup>st</sup> year, 2<sup>nd</sup> semester

**Number of Credits** : 5

**Course Format** : Lectures, practicals, summative assessments



Academic Year: **2022 - 2023**

## LECTURES

**Lecturers:** Doc. Mgr. Kateřina Čížková, Ph.D., MUDr. Radka Lichnovská, Ph.D.

**Study:** Continuous (2 hrs /week)

	DATE/ 2023	SUBJECT	No of HRS	TEACHER
1	16.02.	<b>Introduction to Histology &amp; Embryology Course. Cytology: Histologic Aspects of Cell components.</b>	2	Čížková
2	23.02.	<b>General Overview of Body Tissues. Epithelial Tissue.</b>	2	Čížková
3	02.03.	<b>General Overview of the Connective Tissue. Connective Tissue Proper.</b>	2	Lichnovská
4	09.03.	<b>Connective Tissue (cont.) - Cartilage &amp; Bone. Ossification.</b>	2	Lichnovská
5	16.03.	<b>Muscle Tissue. Development of the Muscle System.</b>	2	Čížková
6	23.03.	<b>Nerve Tissue.</b>	2	Lichnovská
7	30.03.	<b>DISSECTION WEEK (ANATOMY).</b>	2	Lichnovská
8	06.04.	<b>Histology of Formed Blood Elements.</b>	2	Lichnovská

9	13.04.	<b>Hematopoiesis and Histology of the Bone Marrow.</b>	2	Lichnovská
10	20.04.	<b>General Embryology (Part I) - Progenesis. Fertilization.</b>	2	Čížková
11	27.04.	<b>General Embryology (Part II) - Cleavage. Implantation. Formation of The Germ Disc &amp; Germ Layers. Folding of Embryo.</b>	2	Čížková
12	04.05.	<b>The Cardiovascular System.</b> (Microscopic Anatomy)	2	Lichnovská
13	11.05.	<b>The Lymphoid System.</b> (Microscopic Anatomy & Development)	2	Lichnovská
14	18.05.	<b>The Oral Cavity.</b> (Microscopic Anatomy)	2	Čížková
15	25.05.	<b>The Digestive Tube.</b> (Microscopic Anatomy)		Lichnovská

## PRACTICALS

**Course** MUDr. Radka Lichnovská, Ph.D.

**Coordinator:**

**Teachers:** MUDr. Běla Erdösová, Ph.D.; MUDr. Gvantsa Kharashvili, Ph.D.

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

	WEEK/ 2023	SUBJECT	No of/ HRS
1	13. – 17. 02.	<b>Introduction to Histology Practical Courses.</b>	3
2	20. – 24. 02.	<b>Cytology &amp; Cell division.</b>	3
3	27.02. – 03.03.	<b>Epithelial Tissue: Covering &amp; Lining Epithelia.</b>	3
4	06. – 10. 03.	<b>Epithelial Tissue: Glandular epithelia.</b>	3
5	13. – 17. 03.	<b>Connective Tissue: Connective Tissue Proper.</b> <b><u>QUIZ No 1: CYTOLOGY &amp; EPITHELIAL TISSUE</u></b>	3
6	20. – 24. 03.	<b>Connective Tissue: Cartilage &amp; Bone.</b> <b>Ossification.</b>	3
7	27. – 31. 03.	<b>DISSECTION WEEK (ANATOMY)</b> <b>RESISTS (GM + DENTISTRY)</b>	3

8	03. – 07. 04.	<b>Muscle Tissue.</b>	3
9	10. – 14. 04.	<i>Monday Groups:</i> 10 <sup>th</sup> April: <b>EASTER (HOLIDAY)</b> <i>Wednesday Group:</i> <b>Nerve Tissue.</b>	3
10	17. – 21. 04.	<i>Monday Groups:</i> <b>Nerve Tissue.</b> <i>Wednesday Group:</i> <b>Formed Blood Elements &amp; Bone Marrow.</b> <b>QUIZ No 2: CONNECTIVE, MUSCLE &amp; NERVE TISSUES</b>	3
11	24. – 28. 04.	<i>Monday Groups:</i> <b>Formed Blood Elements &amp; Bone Marrow.</b> <b>QUIZ No 2: CONNECTIVE, MUSCLE &amp; NERVE TISSUES</b> <i>Wednesday Group:</i> <b>The Circulatory System.</b>  <i>NOTE: Monday Groups: Self-study of the circulatory system. Appropriate slides will be summarized in session No 14.</i>	3
12	01. – 05. 05.	<i>Monday Groups:</i> 1 <sup>st</sup> May (HOLIDAY) <i>Wednesday Group:</i> <b>The Lymphoid System.</b>	3
13	08. – 12. 05.	<i>Monday Groups:</i> 8 <sup>th</sup> May (HOLIDAY) <i>Wednesday Group:</i> <b>The Oral Cavity.</b>	3
14	15. – 19. 05.	<i>Monday Groups:</i> <b>The Lymphoid System.</b>  <i>NOTE: Monday Groups: Self-study of the oral cavity. Appropriate slides will be summarized in winter semester.</i> <i>Wednesday Group:</i> <b>QUIZ No 3: BLOOD &amp; HEMATOPOIESIS, CIRCULATORY &amp; LYMPHOID SYSTEMS</b>	3
15	22. – 26. 05.	<i>Monday Groups:</i> <b>QUIZ No 3: BLOOD &amp; HEMATOPOIESIS, CIRCULATORY &amp; LYMPHOID SYSTEMS</b> <i>Wednesday Group:</i> <b>Revision of General Histology.</b> <b>Credits &amp; Retakes.</b>	3

Completed by:            Credit.

**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 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 on PC will not meet the requirements necessary to obtain the credit of Histology and Embryology 1.

- 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).

**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 12<sup>th</sup> 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, 4<sup>th</sup> ed. or later eds.

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

**E-learning:**

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

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).