

HISTOLOGY, CYTOPHYSIOLOGY & EMBRYOLOGY
5 years EDD PROGRAM
2024/2025
SPRING SEMESTER

EMBRYOLOGY

14.
SEMINAR: HORMONES PRODUCES BY THE HYPOPHYSIS, REGULATION BY THE HYPOTHALAMUS.

PRACTICAL CLASS: ENDOCRINE GLANDS.

1. hypophysis (slide # 40),
2. thyroid gland (slide # 8),
3. parathyroid gland (slide # 90),
4. suprarenal gland (slide # 39),
5. pineal gland slide # 49),
6. chromaffin reaction in the suprarenal gland (slide # 5),
7. [primary hyperparathyroidis \(text & fig. # 85 \)](#),
8. [photograph of a patient with a thyroglossal cyst \(photo # 87\)](#),
9. specimen x (slide # 32) – please, answer the following questions:

Can you recognise in this specimen:

- 1) epithelium (if the answer is yes what type is it?),
- 2) glands (if the answer is yes, what type are they?),
- 3) fibroblasts,
- 4) adipocytes (fat cells),
- 5) fibers: a)collagen, b)elastic,
- 6) stratified muscle cells,
- 7) smooth muscle cells,
- 8) blood vessels, arterioles, venules,
- 9) capillaries,
- 10) nerves.

15.
SEMINAR: STRUCTURE OF FEMALE REPRODUCTIVE SYSTEM AND ITS HORMONAL REGULATION.

PRACTICAL CLASS: FEMALE REPRODUCTIVE SYSTEM.

1. ovary (slide # 72),
2. corpus luteum (slide # 94),
3. oviduct (slide # 73),
4. uterus (slide # 74),
5. fragments of uterus wall obtained from biopsy:
slide # 105 proliferative phase,
slide # 105a – secretory phase
6. vagina (slides # 96)
7. vagina and fragment of vestibule (slides # 96a)

16.
SEMINAR: STRUCTURE OF MALE REPRODUCTIVE SYSTEM AND HORMONE REGULATION.

PRACTICAL CLASS: MALE REPRODUCTIVE SYSTEM.

1. testis (slide # 69),
2. epididymis (slide # 70),
3. ductus deferens (slide # 71),
4. prostate (slide # 92),
5. prostate fixed in glutaraldehyde (slide # 92a),
6. human spermatozoa (smear) (slide # 69a).
7. [structure of the prostate \(text # 96\)](#)

MARCH 17. 2025
THEORETICAL INTERMEDIATE EXAMINATION IN EMBRYOLOGY (classes # 14, 15 & 16 and lectures)

RETAKE OF THE THEORETICAL INTERMEDIATE EXAMINATION IN EMBRYOLOGY – MARCH 28. 2025

MICROSCOPIC ANATOMY

17. SEMINAR: STRUCTURE OF THE IMMUNE SYSTEM, TYPES OF LYMPHOCYTES, LYMPHOKINES. PRACTICAL CLASS: IMMUNE SYSTEM.

1. spleen (slide # 34),
2. lymph node (slide # 36),
3. thymus (slide # 37),
4. palatine tonsil (slide # 46),
5. thymus-dependent and thymus-independent zones of lymph node (fig. 103), of spleen (fig. 104), and of appendix (fig. 105),
6. high endothelial cell venule (EM # 106),
7. post-capillary venule (EM # 107),
8. e-selectin in the high-endothelium vein (EM # 122),
9. M cells in the palatine tonsils and in the Peyer's patches (text and fig. # 115, 116 & 117).

19. SEMINAR: DEVELOPMENT AND STRUCTURES OF THE TOOTH. ORAL CAVITY MUCOSA AND PERIODONTAL LIGAMENT. PRACTICAL CLASS: GASTRO-INTESTINAL SYSTEM, PART 1.

1. filiform papillae – tongue (slide # 41),
2. circumvallatae papillae – tongue (slide # 42),
3. parotid gland (slide # 44),
4. sublingual gland (slide # 45),
5. tooth germ (slide # 103),
6. dentine, ground section (slide # 100),
7. cross section of development (mature) tooth (# 101),

APRIL 14. 2025

THEORETICAL INTERMEDIATE EXAMINATION IN HISTOLOGICAL STRUCTURE OF THE ORAL CAVITY
(classes # 19 and lectures)

RETAKE OF THE THEORETICAL INTERMEDIATE EXAMINATION IN HISTOLOGICAL STRUCTURE OF THE ORAL CAVITY –
MAY 9. 2025

20. SEMINAR: GLANDS IN STOMACH AND INTESTINES, STRUCTURE AND FUNCTION. PRACTICAL CLASS: GASTRO-INTESTINAL SYSTEM, PART 2.

1. oesophagus (slide # 47),
2. stomach (slide # 48),
3. duodenum (slide # 50),
4. small intestine – jejunum (slide # 51),
5. large intestine – colon (slide # 52),
6. microvilli of jejunal absorptive cell (EM # 83),
7. parietal cells (text & fig. # 91),

21. SEMINAR: RELATIONSHIP BETWEEN STRUCTURE AND FUNCTION OF THE LIVER. PRACTICAL CLASS: GASTRO-INTESTINAL SYSTEM, PART 3.

1. ileum – Peyer's patches (slide # 55),
2. appendix (slide # 53),
3. liver (slide # 54),
4. pancreas (slide # 58),
5. space of Disse (EM # 72),
6. bile canaliculi (EM # 20, 73),
7. kupffer and Ito cells (EM # 61).
8. objective detection of alcohol problems (text & fig. # 19)
9. anomalies in structure of large intestine, Hirschsprung's disease (text & fig. # 142).

23. SEMINAR: UPPER AND DISTAL RESPIRATORY TRACT. PRACTICAL CLASS: RESPIRATORY SYSTEM.

1. trachea (slide # 60),
2. lung (slide # 61),
3. foetal lung (slide # 61a),
4. pulmonary alveoli (EM # 6),
5. surfactant covering alveolar epithelium (EM # 74),
6. interstitial cell (EM # 123),
7. immobile cilia syndrome, Kartagener's syndrome (text # 92).
8. EOTAXIN – chemokine selective for eosinophils (text # 137).

24.

SEMINAR: RELATIONSHIP BETWEEN NEPHRONS AND BLOOD VESSELS.

PRACTICAL CLASS: URINARY SYSTEM.

1. kidney (slide # 63),
2. urinary bladder (slide # 67),
3. ureter (slide # 66),
4. elements of filtration slits in kidney glomerulus (text & photo. # 93)

25.

**SEMINAR: STRUCTURE AND FUNCTION OF SKIN, DEVELOPMENT OF THE MAMMARY GLAND.
THE SENSE ORGANS. STRUCTURE OF THE EYE.**

PRACTICAL CLASS: SKIN & ITS APPENDAGES, MAMMARY GLAND. EYE BALL.

1. nonhairy skin (slide # 83),
2. hairy skin (slide # 85),
3. active (lactating) mammary gland (slide # 86),
4. inactive mammary gland (slide # 87),
5. eye ball (slide # 81),
6. keratinization (fig. # 14),
7. hemidesmosomes in epidermis, the border epidermis – dermis (EM # 131),
8. the structure of human epidermis (fig. # 15),

MAY 26. 2025

THEORETICAL INTERMEDIATE EXAMINATION IN MICROSCOPIC ANATOMY (classes: 17, 20-25 and lectures)

RETAKE OF THEORETICAL INTERMEDIATE EXAMINATION IN MICROSCOPIC ANATOMY – JUNE 6. 2025

27.

SEMINAR: DISCUSSION AND DEMONSTRATION OF HISTOLOGICAL SLIDES - MICROSCOPIC ANATOMY.

**PRACTICAL CLASS: PRACTICAL INTERMEDIATE EXAMINATION IN MICROSCOPIC ANATOMY
(classes: 17, 23-25 and lectures)**

28.

SEMINAR: DISCUSSION BEFORE THE FINAL EXAMINATION.

PRACTICAL CLASS: DEMONSTRATION OF HISTOLOGICAL SLIDES BEFORE THE FINAL EXAMINATION.

INTERMEDIATES EXAMINATIONS IN GENERAL HISTOLOGY

- *January 17, 2025 (Friday) - Theoretical (MCQ)*
- *January 24. 2025 (Friday) - Retake of the theoretical (MCQ)*

INTERMEDIATES EXAMINATIONS IN EMBRYOLOGY

- *March 17, 2025 - Theoretical (MCQ)*
- *March 28. 2025 (Friday) - Retake of the theoretical (MCQ)*

INTERMEDIATE EXAMINATION IN HISTOLOGICAL STRUCTURE OF THE ORAL CAVITY

- *April 14, 2025 - Theoretical (MCQ)*
- *May 9. 2025 (Friday) - Retake of the theoretical (MCQ)*

INTERMEDIATES EXAMINATIONS IN MICROSCOPIC ANATOMY

- *May 26, 2025 - Theoretical (MCQ)*
- *June 6. 2025 (Friday) - Retake of the theoretical (MCQ)*

Final Examination in Histology, Cytophysiology and Embryology

- **Practical examination will be held on July 1, 2025 (Tuesday)**
- **Theoretical Final Examination (MCQ test) will be held on July 2, 2025**
- ***Retake of Final Examination (practical & MCQ) – 4.09.2025***

Dates of all examinations are not subject to negotiation.