CONTENT OF THE SUBJECT

Subject:	**Histology and Embryology 2**		
Study	*Dental Medicine*	**Study Period:**	*1st year, Summer semester*
Evaluation:	*Graduated (A-E)*	**Subject Type:**	*Compulsory*
Content:	*2 h lectures and 3 h practical exercises / week*		*Total 28/42 hours*

Department: **Department of Histology and Embryology UPJŠ FM**

Week	***Lectures*** https://portal.lf.upjs.sk/index-en.php	***Practical exercises***
1.	**Microscopic structure and development of the cardiovascular system** Structure of the heart, arteries and veins. Blood capillaries. Early development of primitive blood circulation and primitive heart.	**Skin** cutis
2.	**Microscopic structure and development of the lymphoid system** Thymus, lymph node and tonsils (Waldayer´s lymphatic ring).	**Cardiovascular system** heart muscular artery and vein aorta / elastic artery
3.	**Development of the face and neck** Branchial apparatus: branchial arches, pharyngeal pouches, branchial grooves and membranes. Development of the face, nasal and oral cavity, palate. Anomalies.	**Lymphoid system** lymph node thymus
4.	**Microscopic structure of the oral cavity** Microscopic structure of the lip, cheeks, palate, gingiva, tongue and pharynx. Development of the tongue.	**Lymphoid system** palatine tonsil lingual tonsil
5.	**Microscopic structure of the tooth** Hard tissues of the tooth – enamel, dentin, cementum. Dental pulp. Supporting tissues of the tooth.	**Digestive system I** lip tooth
6.	**Development of the tooth** Labiogingival ridge, dental lamina. Development of the crown, enamel organ – ameloblasts. Dental papilla - tooth pulp. Odontoblasts, predentin, dentin. Root development, cementoblasts. Tooth eruption.	**Digestive system II** tongue tongue - papilla vallata **General structure of digestive tube** oesophagus
7.	**Microscopic structure and development of the salivary glands** Microscopic structure and development of minor and major salivary glands.	**Digestive system III** parotid gland submandibular gland sublingual gland
8.	**Microscopic structure and development of the respiratory system** Microscopic structure of the nasal cavity, paranasal sinuses, larynx, trachea. Development of nasal cavity, paranasal sinuses, larynx and trachea.	**Respiratory system** epiglottis trachea

9.	**Microscopic structure and development of the endocrine system** Microscopic structure and development of hypophysis, thyroid gland, parathyroid gland.	**Placenta** placenta umbilical cord
10.	**Microscopic structure of the nervous system** Microscopic structure of the spinal cord, cerebellum and brain. Meninges of the brain and spinal cord. Blood-brain barrier. Ganglia and peripheral nerves.	**Endocrine system** hypophysis thyroid gland parathyroid gland
11.	**Development of the nervous system** Development of the neural tube, neural crest and their derivatives. Neural tube histogenesis. Brain vesicles – development and differentiation. Development of meninges.	**Central nervous system** cerebral cortex cerebellum spinal cord
12.	**Microscopic structure and development of the eye** Fibrous layer of the eye. Vascular layer of the eye. Nervous layer of the eye (retina). Essentials of eye development.	**Peripheral nervous system** spinal ganglion peripheral nerve
13	**Microscopic structure and development of the ear** Microscopic structure of the external, middle and inner ear. Essentials of ear development.	**Repetition of microscopic anatomy**
14.	**The skull** Intramembranous and endochondral ossification. Development of the skull - chondrocranium, desmocranium, viscerocranium. Skull of the newborn. Temporo-mandibular joint – microscopic structure and development.	**Semestral slide test**