CONTENT OF THE SUBJECT

Subject:	**Histology and Embryology 2**		
Study	*General Medicine*	**Study Period:**	*2nd year Winter time*
Evaluation:	*Graduated (A-E)*	**Subject Type:**	*Compulsory*
Content:	*2 h lectures and 4 h practical exercises / week*		*Total: 28/56 hours*

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

Week	***Lectures*** http://portal.lf.upjs.sk	***Practical exercises***
1.	**Cardiovascular system I** General microscopic structure of blood vessels. Microscopic structure and types of blood capillaries, arteries and veins. Microscopic structure of the heart. Conducting system of the heart.	**Microscopic observation** **Skin, hairs and glands -** skin, lip **Mammary glands** – active and non active
2.	**Cardiovascular system II** Development of primitive circulatory system. Essentials of heart development: development of endocardial tubes, development of atria and ventricles. Prenatal and postnatal circulation. Malformations.	**Cardiovascular system –** heart, aorta/elastic artery, muscular artery and vein.
3.	**Lymphoid system** Microscopic structure and function of thymus, lymph node, spleen and tonsils.	**Lymphoid system –** thymus, lymph node, spleen, palatine tonsil.
4.	**Digestive system I – oral cavity** Essentials of development, microscopic structure (types of mucosa) and function of oral cavity organs – lip, tongue, tooth.	**Digestive system I –** lip, tongue, tongue – papilla vallata, tooth.
5.	**Digestive system II – digestive tube** Essentials of development, microscopic structure and function of digestive tube segments.	**Digestive system II –** oesophagus, osesophagus-cardia, stomach - fundus, small intestine (jejunum), large intestine (colon), appendix vermiformis.
6.	**Digestive system III - glands** Essentials of development, microscopic structure and function of glands associated with digestive system.	**Digestive system III –** parotid gland, submandibular gland, pancreas, liver, gallbladder.
7.	**Respiratory system** Essentials of development, microscopic structure and function of respiratory system.	**Respiratory system -** epiglottis, trachea, lung.
8.	**Urinary and genital system I** Microscopic structure and function of the kindey and urinary passages. Microscopic structure and function of the testis and genital ducts of men. Microscopic structure and function of the ovary and internal genital organs of women.	**Urinary system -** kidney, ureter, urinary bladder.

9.	**Urinary and genital system II** Development of urinary system. Cloaca. Development of the male genital system. Development of the female genital system. Indifferent gonads. Wolffian and Müller ducts.	**Male reproductive system -** testis, epididymis, ductus deferens, prostate.
10.	**Development of the face and neck** Development of the face, nasal and oral cavity, palate. Branchial arches, pharyngeal pouches, branchial grooves and membranes. Developmental anomalies. Clefts.	**Female reproductive system -** ovary, uterine tube, uterus - proliferative and secretory phase, vagina
11.	**Endocrine system** Essentials of development, microscopic structure and function of endocrine glands.	**Female reproductive system, embryology -** placenta, umbilical cord.
12.	**Nervous system I** Microscopic structure of the spinal cord, cerebellum and cerebral cortex. Meninges, Haematoencephalic barrier. Spinal ganglia, peripheral nerves.	**Endocrine system -** hypophysis, thyroid gland, parathyroid gland, suprarenal gland
13.	**Nervous system II** Development and histogenesis of neural tube. Development of the spinal cord and brain and its differentiation. Development of meninges.	**Central and peripheral nervous system** - cortex cerebri, cerebellum, spinal cord, spinal ganglion, peripheral nerve
14.	**Sensory organs** Microscopic structure and essentials of development of the eye and the ear.	**Semestral slide test**