

CONTENT OF THE SUBJECT

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<b>Subject:</b>	<b>Basic Embryology</b>		
<b>Study</b>	<i>General Medicine</i>	<b>Study Period:</b>	<i>2<sup>nd</sup> year, Winter semester</i>
<b>Evaluation:</b>	<i>Absolved (A-E)</i>	<b>Subject Type:</b>	<i>Elective</i>
<b>Content:</b>	<i>2 h seminars / week</i>		<i>Total 28 hours</i>

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

<b>Week</b>	<b>Lectures</b> <a href="https://portal.lf.upjs.sk/index-en.php">https://portal.lf.upjs.sk/index-en.php</a>	<b>Seminars</b>
1.		<b>1st and 2nd week of human development.</b> Gametogenesis, fertilization, implantation. Development of placenta and fetal membranes. Microscopic structure of placenta.
2.		<b>3rd and 4th week of human development.</b> Primitive streak, development of notochord, neurulation. Differentiation of three germ layers and their derivatives. Differentiation of mesoderm. Early development of cardiovascular system.
3.		<b>4th to 8th week of human development.</b> Development of neural tube, somites, nephrotomes, folding of the embryo, primitive gut. Early development of head, placodes.
4.		<b>ORGANOGENESIS</b> <b>Cardiovascular system development.</b> Early development of primordial heart and blood vessels - intraembryonic and extraembryonic vessels. Later development of heart. Partitioning of heart – development of atria, ventricles, great vessels. Developmental anomalies.
5.		<b>Fetal and neonatal circulation.</b> Developmental anomalies. <b>Development of lymphatic system.</b> Lymphnode, spleen, tonsils.
6.		<b>Digestive tract development.</b> Development of foregut, midgut and hindgut. Development of stomach and intestines – rotations. Developmental anomalies. Development of body cavities.

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7.		<p><b>Development of glands in digestive system.</b> Development of salivary glands, liver, pancreas.</p> <p><b>Development of respiratory system.</b> Lung development, pericardioperitoneal canals, diaphragm. Developmental anomalies.</p>
8.		<p><b>Urinary system development.</b> Pronephros, mesonephros, metanephros. Development of kidneys and ureters, urinary bladder and urethra. Position of kidneys and blood supply. Developmental anomalies.</p> <p><b>Suprarenal gland development.</b></p>
9.		<p><b>Male and female reproductive system development.</b> Indifferent gonads. Development of testes and ovaries, genital ducts, glands and external genitalia. Developmental anomalies.</p>
10.		<p><b>Development of nervous system.</b> Histogenesis of neural tube. Spinal cord development. Neural crest derivatives. Developmental anomalies.</p>
11.		<p><b>Development of nervous system.</b> Development of brain – brain flexures, forebrain, midbrain, hindbrain, ventricles. Developmental anomalies.</p>
12.		<p><b>Pharyngeal apparatus, head and neck development.</b> Development of face, nasal and oral cavity, palate and tongue. Developmental anomalies.</p>
13		<p><b>Development of eyes and ears.</b> Developmental anomalies.</p>
14.		<p><b>Credit week</b></p>

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