

Program of practical exercises in Histology and Embryology 1st year, Summer term – General medicine	
1st week	The histological technique – the preparation of histological sections for light microscopy. Histological staining methods. Slides: Blood vessels (HE), Blood vessels (Orcein), Supraren (HE), Supraren (Sudan III), Skin (HE), Skin (Trichrom), Skin (Sirius red), Striated muscle (HE), Striated muscle (IH), Nodus lymphaticus (HE), Nodus lymphaticus (Gömöri), Cerebellum (HE), Cerebellum (Luxol blue), Peripheral nerve (HE), Peripheral nerve (OsO₄), Astrocytes (Cajal), Bone-trans., Ren (Azan), Intestinum tenue (PAS)
2nd week	Cytology – the cell, shape of cells, cell components - structure and function. Slides: Choroid plexus (HE), Ren (HE), Liver (Trichrom), Vesica fellea (HE), Intestinum crassum (HE), Cerebrum (HE), Cerebellum (Luxol blue), Cerebellum-Golgi apparatus (Da Fano), Cerebellum (Neurofilament), Ren-mitochondrie (IH), Astrocytes (GFAP), Intestinum tenue (HE), Striated muscle (HE), Adipose tissue (HE), Ganglion spinale (HE), Blood smear
3rd week	Epithelial tissue 1st part – characteristics of epithelial cells and epithelial tissue, simple epithelium, glandular epithelium. Slides: Mesothelium (AgNO₃), Appendix-mesothelium (HE), Vessel (HE), Vessels (Trichrom), Choroid plexus (HE), Thyroid gland (HE), Ren (HE), Ren (Imuno), Eye-pigment epithelium (HE), Eye-pigment epithelium, Vesica fellea (HE), Uterine tube (HE), Intestinum tenue (HE), Intestinum crassum (HE), Parotid gland (HE), Submandibular gland (HE), Submandibular gland (Trichrom), Pancreas (HE), Skin (HE)
4th week	Epithelial tissue 2nd part - pseudostratified epithelium, stratified epithelium – TEST 1 Slides: Trachea (HE), Ductus epididymidis (HE), Pulmo-bronchus (HE), Lingua (HE), Lingua (CK13), Esophagus (HE), Vagina (HE), Skin (HE), Skin (Trichrom), Urethra masculina (HE), Ureter (HE), Ureter (Azan), Vesica urinaria (HE), Epiglottis (HE)
5th week	Loose connective tissue – general characteristics of connective tissue, types of cells, ground substance, types of connective tissue fibers, types of connective tissues. Slides: Trachea (HE), Small intestine (HE), Esophagus (HE), Vessels (Trichrom), Loose connective tissue (Anilin blue), Loose connective tissue (Orcein), Aorta (Orcein), Nodus lymphaticus (HE), Nodus lymphaticus (Gömöri), Hepar (Gömöri), Umbilical cord (HE), Umbilical cord (Azan), Umbilical cord (Trichrom), Adipose tissue (HE), Adipose tissue (Sudan III), Plasma cells (HE), Mast cells (Toluidin blue), Eye-melanophores – 1/2 of class
6th week	Loose connective tissue – general characteristics of connective tissue, types of cells, ground substance, types of connective tissue fibers, types of connective tissues. Slides: Trachea (HE), Small intestine (HE), Esophagus (HE), Vessels (Trichrom), Loose connective tissue (Anilin blue), Loose connective tissue (Orcein), Aorta (Orcein), Nodus lymphaticus (HE), Nodus lymphaticus (Gömöri), Hepar (Gömöri), Umbilical cord (HE), Umbilical cord (Azan), Umbilical cord (Trichrom), Adipose tissue (HE), Adipose tissue (Sudan III), Plasma cells (HE), Mast cells (Toluidin blue), Eye-melanophores – 1/2 of class
7th week	Dense connective tissue, cartilage – dense irregular connective tissue, dense regular connective tissue, types of cartilage. Slides: Dense connective tissue (HE), Skin (Sirius red), Larynx (Azan), Larynx-ligamentum (HE), Lien (HE), Eye (HE), Tendon (HE), Trachea (HE), Pulmo (HE), Epiglottis (HE), Epiglottis (Orcein), Fibrocartilage (HE)
8th week	Bone, ossification, blood, bone marrow – structure of compact and spongy bone, intramembraneous and endochondral ossification, blood cells, erythropoiesis, granulopoiesis –TEST 2 Slides: Bone-trans, Bone-long., Bone (HE), Intramembraneous ossification (HE), Intramembraneous ossification (Trichrom), Endochondral ossification (HE), Endochondral ossification (Trichrom), Bone marrow (Giemsa), Bone marrow (HE), Bone marrow (Gömöri), Blood smear, Blood smear-patol.
9th week	Muscle tissue – skeletal muscle, cardiac muscle, smooth muscle. Slides: Skeletal muscle (HE), Skeletal muscle (IH), Lingua (HE), Lingua (IH), Myocardium (HE), Myocardium (IH), Small intestine (HE), Esophagus (HE), Uterus (HE), Ductus deferens (HE), Artery (HE), Prostata (HE), Prostata (SMA), Prostata (Trichrom), Skin-smooth muscle (HE), Pulmo-bronchus (HE)
10th week	Nervous tissue – types of neurons, neuroglia, types of nerve fibres. Slides: Cerebrum (HE), Cerebrum (Luxol blue), Cerebellum (HE), Cerebellum (Luxol blue), Spinal cord (HE), Spinal cord (Luxol blue), Spinal cord (Holmes), Medulla oblongata (Luxol blue), Astrocytes (GFAP), Ganglion spinale (HE), Nervus peripheralis (HE)

11th week	Central nervous system – histological structure of gray matter and white matter of the brain and the spinal cord – TEST 3 Slides: Cerebrum (HE), Cerebrum (Luxol blue), Cerebrum-Astrocyty (GFAP), Cerebellum (HE), Cerebellum (Luxol blue), Spinal cord (HE), Spinal cord (Luxol blue), Choroid plexus (HE) E: Cerebrum 19.tt (HE)
12th week	The circulatory system – heart, blood vessels – arteries, veins, capillaries. Slides: Myocardium-endocardium (HE), Myocardium-epicardium (HE), Myocardium-epicardium (Trichrom), Aorta (HE), Aorta (Orcein), Artery (HE), Artery (Orcein), Artery and vein (HE), Vessels (HE), Vessels (Trichrom), Vessels (SMA), Lien (HE), Ren (HE), Intramembranous ossification (HE), Hepar (HE), Hypophysis (HE) E: Cor 11.tt (HE), Cor 19.tt (HE)
13th week	Lymphatic tissue and lymphatic system – histological structure of the lymphatic organs, T, B lymphocytes, lymphatic vessels – TEST 4 Slides: Nodus lymphaticus (HE), Nodus lymphaticus (Gömöri), Lien (HE), Thymus (HE), Thymus involution (HE), Tonsilla palatina (HE), Tonsilla lingualis (HE), Appendix (HE), Appendix (Bcl-2), Intestinum crassum GALT (HE) E: Thymus-trachea 11.tt (HE), Pancreas-lien 19.tt (HE)
14th week	Substitution of the practicals and tests – CREDIT SLIDE TEST – practical Final evaluation in the subject Histology 1