

**Time table of Biology**  
For 1<sup>st</sup> year of the Faculty of Dentistry  
**Seminars and lab exercises**  
Academic year 2025-2026

**Unit 1 KK (3 h) 10.10**

**Seminar:** Parasitism and its concepts Part 1; symbiosis and its types (e.g. parasitism); examples of parasitic organisms in taxonomical arrangement (biology, ecology, morphology, and epidemiology of most important parasite species, opportunistic parasites.

**Exercise:** Microscopic techniques

**Unit 2 KK (3 h) 17.10**

**Seminar:** Parasitism and its concepts Part 2; symbiosis and its types (e.g. parasitism); examples of parasitic organisms in taxonomical arrangement (biology, ecology, morphology, and epidemiology of most important parasite species, opportunistic parasites.

**Exercise:** Morphology of parasites: Protista: *Trichomonas vaginalis*, *Trichomonas tenax*, *Giardia lamblia*

**Unit 3 KK (3 h) 24.10**

**Seminar and Exercise:** Morphology of parasites: Protista (Amoebae and Apicomplexans): *Entamoeba gingivalis*, *Entamoeba histolytica*, *Plasmodium vivax*, *Toxoplasma gondii*, *Trypanosoma gambiense*, *Trypanosoma cruzi*

**Unit 4 NLA/KK (3 h) 7.11**

**Seminar:** Range of tolerance and essential and non-essential elements, including xenobiotics

**Exercise:** Morphology of parasites: Flatworms: Digeneans: *Schistosoma haematobium*; Tapeworms (Cestoda): *Taenia solium*, *Taenia saginata*, *Echinococcus granulosus*

**Unit 5 KK (3 h) 14.11**

**Seminar:** Human ecology

**Exercise:** Morphology of parasites: Roundworms: Nematodes: *Ascaris lumbricoides*, *Trichinella spiralis*, *Enterobius vermicularis*, *Trichuris trichiura*

**Unit 6 KK (3 h) 21.11**

**Seminar:** Human biology. Length of human life. Organism and population ageing

**Exercise:** Morphology of parasites: Arthropods: Ticks: *Ixodes Ricinus*; Mites: *Demodex folliculorum*, *Sarcoptes scabiei*; Insects: *Pediculus humanus*, *Phthirus pubis*, *Pulex irritans*, *Cimex lectularius*

**Unit 7 KK (3 h) 28.11**

**Test (classes 2-6) and parasite identification of slides**

**Seminar on-line (KK; 2 godz):** Cell cycle: sexual reproduction; cell division in prokaryotes, cell division in eukaryotes.

**Exercise:** Mitosis. Meiosis. Gametogenesis: oogenesis and spermatogenesis. Hormonal regulation of oogenesis and spermatogenesis in human.

**Unit 8 KK (2 h) 5.12****Seminar online (KK; 1 h):** Ontogenesis**Exercise:** Human genome nuclear genomes and mitochondrial genome. Mitochondrial diseases/disorders, gene concept, coding and non-coding DNA. Inheritance patterns, Antigens associated with red blood cells, blood types/blood groups (AB0, MN, Rh systems)**Unit 9 KK (2 h) 12.12****Exercise:** Chromosome structures in prokaryotes and eukaryotes. Human chromosome types. Chromosomes X and Y. Cytogenic diagnostics methods. Karyotype: normal and abnormal. Chromosome aberrations: Down, Turner and Klinefelter syndromes. Karyotype preparations and chromosome bending techniques and their importance in cytogenic diagnostic.**Exercise:** Disorders based on autosomal, dominant, autosomal recessive, and X-linked mutations. Theoretical genetic exercises.**Unit 10 KK (2 h) 19.12****Test (classes 9-12)****Seminar and Exercise:** Students presentations (toxicology and parasitological subjects)