

701281 Microbiology

[3 cr., 2, 2] The general biology of microorganisms. Includes the structures of prokaryotic and eukaryotic cells, energy transformations, nutrition, biosynthesis, growth, and microbial genetics. Various aspects of applied microbiology such as antimicrobial agents, microbial interactions, microbial ecology, and industrial microbiology will also be discussed.

Lab: The laboratory includes basic techniques for handling, isolating and characterizing microorganisms. The biology of microorganisms that cause disease; the pathogenesis, epidemiology, clinical syndromes, laboratory diagnosis, treatment, and prevention of infectious diseases; microbial structure, metabolism, genetics, and virulence factors; mechanisms of host resistance, chemo therapy, and vaccination; bacteriology, with emphasis on oral microflora; mycology; parasitology; and virology, with emphasis on AIDS, herpes viruses, and hepatitis; molecular diagnostics and recombinant DNA technology.