# **ORAL BIOLOGY (ORLB)**

#### ORLB 7090 Pharmacology and Therapeutics 3 cr

A combined lecture and seminar course on the pharmacological basis of therapeutics. Special attention will be paid to drugs used commonly in the practice of dentistry, their side effects and their interaction.

#### ORLB 7100 Oral Microbial Ecology 3 cr

Study of principles of ecology in relation to the various ecosystems in the oral cavity. In depth examination of the taxonomic relationships of oral bacterial species. Emphasis will be placed on the growth and metabolic activities of oral bacteria which lead to successful colonization of the mouth.

#### ORLB 7110 Infectious Diseases and the Oral Cavity 3 cr

The description of the aetiology of microbial infections in the mouth and infections elsewhere in the body which involve oral bacteria. The control of such infections by vaccines, antibiotics and antimicrobial drugs. Treatment of infections in the immuno-suppressed, post-operative infections and nosocomial infections. The relationships of host immune system to the oral flora.

#### ORLB 7120 Special Problems in Oral Biology 3 cr

Each student will be required to carry out a minor research project in an area of oral biology other than that of their thesis work. The results of this project will be presented in a seminar and submitted as a written report.

## ORLB 7130 Macromolecular Interactions of Connective Tissue in Health and Disease 6 cr

A comprehensive study of the macromolecular constituents of connective tissue, of their synthesis, metabolism, macromolecular interaction in health and disease, and of their regulatory mechanisms.

#### ORLB 7140 Cell Membrane and Cell Signaling 3 cr

This course will cover the structure and function of cell membrane receptors. The mechanisms and regulation of membrane coupled signal transduction pathways including those stimulated by oral tastants and drugs will also be covered.

#### ORLB 7150 MECH ORAL & MAX DIS 3 cr

This course deals with the molecular pathology of the oral cavity and maxilofacial complex.

#### ORLB 7162 Neurophysiology of Pain 3 cr

This course examines the peripheral and central mechanisms associated with pain. Endogenous pain control systems and the pharmacological treatment of pain will also be covered.

### ORLB 7180 Recent Advances in Oral Biology 6 cr

This course is given by staff in the form of lectures and tutorials. Additional lectures may be given by visiting scientists. Students are expected to familiarize themselves with the relevant literature and are examined for an in-depth appreciation of the topics covered.

## ORLB 7190 Communication Skills in Dental Research 3 cr

A course to develop written, visual and oral communication skills in scientific and clinical disciplines related to dentistry.