



Faculty of Health, Science and Technology
Oral Health

Syllabus

Anatomy, physiology, and medical microbiology for dental hygienists

Course Code:	OHG006
Course Title:	Anatomy, physiology, and medical microbiology for dental hygienists <i>Anatomi, fysiologi och medicinsk mikrobiologi för tandhygienister</i>
Credits:	15
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has only upper-secondary level entry requirements (G1N)

Major Field of Study:

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2023-03-07, and is valid from the Autumn semester 2023 at Karlstad University.

Prerequisites

General admission requirements and upper secondary level Mathematics 2a, 2b, or 2c, Civics 1b or Civics 1a1 + 1a2, Natural Science 2 or Physics 1, Chemistry 1, and Biology 1

Learning Outcomes

Upon completion of the course, students should be able to:

Knowledge and understanding

- Give an account of the structure and function of the cell and of the different tissues in the body
- Give an account of the cardiovascular system and the function of liver and kidneys

- Give an account of the anatomy and function of the brain related to pain and pain physiology
- Give an account of embryonic development in the head and neck area and describe the tissues of teeth and periodontium
- Give an account of bone, muscle, nerves, vessels, salivary glands in the head and neck area and the structure and function of the oral cavity
- Explain basic concepts of general microbiology and immunology
- Give an account of infection, transmission, and infection protection,
- Give an account of the structure, metabolism, colonisation, and disease-causing properties of oral microorganisms
- Give an account of infection protection and related ordinances as well as hygiene work in dentistry
- Give an account of basic hygiene routines and the handling of dental equipment and instruments in dentistry

Competence and skills

- Identify and name anatomic structures in the head and neck area using medical terminology (Latin)
- Identify and name the morphology of individual teeth and nomenclature for deciduous and adult teeth
- Identify and name bones, muscles, nerves, vessels, salivary glands in the head and neck area and the structures of the oral cavity

Judgement and approach

- Reflect upon professional ethical principles
- Reflect upon their own observations and actions in dentistry, and experiences of dental care as a patient
- Reflect upon hygiene routines and infection protection in dentistry

Content

The course covers the following:

- General cell and tissue theory
- General physiology
- The anatomy and physiology of the brain
- Pain and pain physiology
- General and oral microbiology
- Immunology
- Infection and infection protection
- The anatomy of the head and neck and medical terminology
- Embryology and oral tissues
- Dental anatomy
- The structures of the oral cavity and their function
- Ordinances that regulate infection protection and healthcare hygiene
- Auscultation, clinical placement (VFU), one (1) week

Reading List

See separate document.

Examination

Assessment is based on

- individual written take-home exams
- seminars
- an individual written report

The number of assessment opportunities is limited to five.

In order to pass the course, students also have to participate in mandatory clinical placement (VFU). The number of opportunities to complete the clinical placement is limited to two.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.

Travel and accommodation related to the clinical placement (VFU) may mean extra costs for students. Students have to receive and pay for any and all vaccinations required for clinical practice, in accordance with the rules of the clinic in question. Please note that regional clinics require/may require information about a student's criminal record before the clinical placement, and that students are responsible for providing the information.

A student who, in the examiner's judgement, will fail to obtain a Pass grade for the clinical placement component on the grounds of grave and unprofessional conduct may be required to immediately discontinue the clinical training. As stipulated in the Higher Education Act Ch. 4, sect. 6, SFS 1992: 1434, and Regulations of Student Expulsion from Higher Education SFS 2007: 989, a student who suffers from mental disorder, abuses alcohol or drugs, or has been guilty of a serious offence endangering others or valuable property can be expelled until further notice. In such a case, the Rector files a complaint to the Expulsion Board of Higher Education, which investigates the matter and makes a decision. A decision of expulsion shall always entail that the student must discontinue the education until further notice. The Expulsion Board of Higher Education is responsible for all Swedish higher education institutions.