



Course syllabus

Faculty of Health and Life Sciences

Department of Chemistry and Biomedical Sciences

1BK011 Introduktionskurs för biomedicinska analytiker, 7,5 högskolepoäng

1BK011 Introductory course for biomedical scientists, 7.5 credits

Main field of study

Biomedical Science, Biology

Subject Group

Medicine

Level of classification

First Level

Progression

G1N

Date of Ratification

Approved 2009-12-09

Revised 2016-06-14 by Faculty of Health and Life Sciences.

The course syllabus is valid from autumn semester 2016

Prerequisites

General entry requirements and Biology 2, Chemistry 2, Mathematics 3b / 3c or Biology B, Chemistry B, Mathematics C (Field-specific entry requirements 12/A12).

Objectives

After completing the course, the student should be able to:

- explain the levels of organisation in the human body, from cell to organ system
- describe the structure of the eukaryotic cell
- provide an overview of the structure and general functions of carbohydrates, proteins, lipids, and nucleic acids in the human body
- provide an overview of the cell's production of chemical energy
- provide an overview of the genetic flow in a cell
- explain the meaning of the terms *hormone*, *neurotransmitter*, and *paracrine factor*
- name the different organ systems of the human body and provide a general overview of their functions
- use word processing and spreadsheet programmes and basic file management, as well as be familiar with presentation software

- search for relevant literature, compile information in a written report for oral presentation, and review and critique the reports of fellow students
- demonstrate a general understanding of the biomedical analyst's professional role in clinical laboratories.

Content

- Biomedical overview.
- Basic biochemistry and cell biology.
- The structure and function of the human body.
- Use of computers.
- Literature assignment focusing on the medical cause of a specific disease, intended to provide practice in literature searching, compilation, report writing, oral presentation, and peer review.
- Teaching sessions in a workplace.

Type of Instruction

Teaching is delivered in the form of lectures, supervision, laboratory sessions, seminars, and teaching sessions in a workplace. Participation in seminars, laboratory sessions, and workplace sessions is mandatory.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Written and oral assignments are examined continuously throughout the course. The course ends with a written examination.

The grading criteria for the grade of Pass are based on the course objectives (see above).

Resit examination is offered within six academic weeks after the regular examination.

Course Evaluation

During or shortly after the course, a course evaluation should be conducted. The result and analysis of the course evaluation should be promptly communicated to the students who have taken the course. Students who are taking the course when it is offered the next time should be informed of the result at the course introduction. The course evaluation is anonymous.

Required Reading and Additional Study Material

Sand, Olav, Sjaastad, Öjsten V., Haug, Egil & Bjålie, Jan G. *Människokroppen – Fysiologi och anatomi*. Liber AB. The latest edition.

Lund, B. & Malmqvist, J. *Medicinska ord: det medicinska språket: begrepp, definitioner, termer*. Studentlitteratur AB, Lund. The latest edition.

Persson, Bodil & Wilhelmsson, Margaretha. *Biomedicinsk analytiker – en profession att vara stolt över*. Studentlitteratur. The latest edition.

Widmaier, E. P., Raff, H. & Strang, K. T. *Vander, Sherman, & Luciano's Human Physiology, the mechanisms of body function*. McGraw-Hill Publishing Company, New York. The latest edition.

