Course syllabus for

From Atom to Organism, 3 credits

Från atom till organism, 3 hp
This course syllabus is valid from autumn 2016.
Please note that the course syllabus is available in the following versions:
Autumn2016 , Autumn2018 , Autumn2019 , Autumn2023

Course code	1BA094
Course name	From Atom to Organism
Credits	3 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedical Laboratory Science
Level	G1 - First cycle 1
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Education committee Labmed
Decision date	2016-05-12
Course syllabus valid from	Autumn 2016

Specific entry requirements

Biology 2, Physics 1a / Physics 1b1 + 1b2, Chemistry 2, Mathematics 3b / 3c (field specific entry requirements A12). Or: Biology B, Physics A, Chemistry B, Mathematics C (field specific entry requirements 12).

Objectives

The course general aim is that student should acquire knowledge of how different components build cells and tissues with a focus on man as well as how these can communicate to organise govern and maintain a tissue/organism.

On completion of the course, the student at a basic level should be able to:

Knowledge and understanding
• explain the origin, self organization and biological organisation of life
• explain molecular processes that are necessary for the life be these take place and what their main function is
• explain structure and function for the cell and its organelles as well as different events that occur in the cell

• explain how tissues are organised tissues are built and are maintained
• explain the human the body plans
• explain how diseases arise in man (introduction to general pathology)

Skill and ability
• acquire knowledge from different sources as well as evaluate these critically
• account for acquired knowledge in an organised way with use of relevant terms in relation to the contents of the course
• know how one identifies a problem that should be studied
• know how one uses already existing knowledge to describe new relations

Content

During the course, the student prepares an own knowledge that stretches oneself from what universe consists of and that everything is chemistry. Further through the definition for life, what life consists of and how it is built-up up to the organism's structure and how diseases can arise in an organism.

As help during the course, the student access to introductory lectures, group assignment together with other students and supervisor meetings has, where the student meets a supervisor in small groups and discusses information/knowledge acquired during the course. The course is then completed with a written examination.

Teaching methods

The course is given in the form of lectures, group assignments and supervisor meetings.

Examination

A written examination completes the course.

To pass of whole course is required passed on the written examination.

In case of absence an agreement concerning supplementary examination is made between the student and the responsible teacher. One re-examination is given in connection to the course and during a re-examination week in August. The students who not are passed after regular examination session have a right to participate at five further examination sessions.

Transitional provisions

Examination according to this syllabus will be provided during one year after the decision to terminate the course or revision of the syllabus.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

Literature and other teaching aids

Alberts, Bruce

Molecular biology of the cell

5. ed. : New York : Taylor & Francis, cop. 2008 - xxxiii, 1268 s.
ISBN:9780815341062 (paperback) LIBRIS-ID:10645719

URL: http://www.loc.gov/catdir/toc/ecip0710/2007005475.html
Library search

Wilson, John H.; Hunt, Tim
Molecular biology of the cell. : The problems book

5th ed. : New York : Garland Science, c2008 - xviii, 587 p.
ISBN:978-0-8153-4110-9 (softcover) LIBRIS-ID:10686944
URL: Länk
Library search

Erlanson-Albertsson, Charlotte; Gullberg, Urban
Cellbiologi

2., [rev. och uppdaterade] uppl. : Lund : Studentlitteratur, 2007 - 350 s.
ISBN:978-91-44-04738-6 LIBRIS-ID:10532220
Library search