Course syllabus for

Introduction to Biomedical Science, 10 credits

Introduktion till biomedicin, 10 hp
This course syllabus is valid from autumn 2013.
Please note that the course syllabus is available in the following versions:
Autumn2007 , Autumn2009 , Autumn2011 , Autumn2013

Course code	1BI001
Course name	Introduction to Biomedical Science
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	G1 - First cycle 1
Grading scale	Excellent, Very good, Good, Satisfactory, Sufficient, Fail, Fail
Department	Department of Medical Biochemistry and Biophysics
Participating institutions	• Department of Neuroscience
Decided by	Programnämnden för biomedicinprogrammet
Decision date	2007-06-19
Revised by	Programme committee for study programmes in biomedicine
Last revision	2020-01-27
Course syllabus valid from	Autumn 2013

Specific entry requirements

Biology 2, Physics 2, Chemistry 2, Mathematics 4 (field specific entry requirements A13). Or: Biology B, Physics B, Chemistry B, Mathematics D (field specific entry requirements 13).

Objectives

Upon completion of the course, the student should:

- have knowledge about the field of biomedicine,
- be able to account for basic anatomic concepts and structures,
- be able to account for basic biochemical and cell biology-related concepts,
- be able to explain basic principles of structural and functional concepts for biological macromolecules,
- be able to explain the principles of the information flow in the cell,
- demonstrate basic skills in biochemical laboratory work,

- demonstrate an understanding of an ethical and safety attitude to biomedical work.

Content

The course defines the subject area of biomedicine and points out the areas where biomedicine is applied. Further, specific knowledge will be communicated in basic biochemistry and cell biology and the organisation of the body.

Orientation in biomedicine: General lectures on various biomedical areas where also an ethical attitude is provided and advantages and disadvantages of different biomedical model systems.
Basic biochemistry and cell biology: Biochemical and cell biology-related concepts, the structure of the cell, pH and buffers, macromolecules, protein chemistry, structure and function relationship, enzyme kinetics and the central cell function of enzymes, and the flow of genetic information (replication, transcription and translation - at a general level).
The organisation of the body: Basic anatomic concepts and structures, and basic integrative physiology.
Cardiopulmonary resuscitation

Teaching methods

Teaching will be in the form of lectures, web-based seminars, laboratory sessions, group tuition and project work.

Examination

The examination consists of laboratory reports, oral and written presentation of project work, and a written examination. The laboratory reports and the oral and written presentation of project work is graded Fail/Pass. The written examination is graded A-F.

The final grade for the course is based on the grade on the written examination. To obtain at least the grade E on the course the student must have passed all the examinations.

Compulsary participation
Attendance is compulsory at laboratory sessions, including laboratory lectures, at presentations, and at cardiopulmonary resuscitation. The course director assesses if and in that case how absence may be compensated. Before the student has participated in compulsory parts, or compensated absence in accordance with the course director 's instructions the student' s course result will not be registered in LADOK.

Limitation of number of occasions to write the exam
Students who have not passed the regular examination are entitled to participate in five more examinations. If the student is not approved after four examinations, he/she is recommended to retake the course at the next regular course date, and may, after that, participate in two more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in, will not be counted as an examination.

Transitional provisions

The course has been cancelled and was offered for the last time in the fall semester of 2013.

Other directives

The course is given in Swedish but certain teaching in English can occur.

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

Oral evaluation in the form of course council meetings will be carried out during the course.

Literature and other teaching aids

Harvey, Richard A.; Ferrier, Denise R.

Biochemistry

5th ed. : Baltimore, Md. : Lippincott Williams & Wilkins, c2011. - 520 s.
ISBN:978-1-60913-998-8 (pbk.) LIBRIS-ID:11936597
Library search

Taylor, Jason J.; Memmler, Ruth Lundeen.; Cohen, Barbara J.

Memmler's structure and function of the human body. Structure and function of the human body

10th ed. : Philadelphia : Wolters Kluwer Health/Lippincott Williams & Wilkins, c2013. - xxxi, 481 p.
ISBN:978-1-60913-902-5 (hardcover) LIBRIS-ID:13415916
Library search