Course syllabus for

Introduction to Biomedical Science, 6 credits

Introduktion till biomedicin, 6 hp
This course syllabus is valid from autumn 2019.
Please note that the course syllabus is available in the following versions:
Autumn2017 , Autumn2019

Course code	1BI035
Course name	Introduction to Biomedical Science
Credits	6 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	G1 - First cycle 1
Grading scale	Fail (U), pass (G) or pass with distinction (VG)
Department	Department of Medical Biochemistry and Biophysics
Participating institutions	• Department of Neuroscience
Decided by	Programnämnden för biomedicinprogrammen
Decision date	2017-04-19
Revised by	Programme committee for study programmes in biomedicine
Last revision	2019-03-27
Course syllabus valid from	Autumn 2019

Specific entry requirements

General requirements (with exemption from Swedish proficiency) and Biology 2, Chemistry 2, Mathematics 4. Or: Biology B, Chemistry B, Mathematics D. And proficiency in English equivalent to English 6/English B.

Objectives

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

Regarding knowledge and understanding

- have an understanding of the field of biomedical science,
- account for basic anatomic concepts and structures,
- account for basic biochemical concepts,
- explain basic principles of structural and functional properties of biological macromolecules,

Regarding competence and skills

- demonstrate basic skills in biochemical laboratory work,

Regarding judgement and approach

- demonstrate an attitude to biomedical work that encompasses ethics and safety.

Content

The course outlines the area of biomedicine and discusses the areas where biomedicine is used. Basic biochemistry and human anatomy will be covered.

Orientation in biomedicine: general lectures on various biomedical areas including ethical aspects. Advantages and disadvantages of different biomedical model systems.
Basic biochemistry: biochemical-related concepts, the structure of the cell, pH and buffers, macromolecules, protein chemistry, structure and function relationships of proteins, enzyme kinetics and the central cell function of enzymes.
Human anatomy: basic anatomic concepts and structures. Cardiopulmonary resuscitation.

Teaching methods

Teaching will be in the form of lectures, laboratory sessions, group tuition and a project work.

Examination

The examination consists of a written laboratory summary, oral and written presentation of project work, and a final written examination. The laboratory summary and the oral and written presentation of project work is graded Fail/Pass. The written examination is graded Fail/Pass/Pass with distinction.

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

Compulsory participation
Attendance is compulsory at laboratory sessions, specific lectures, presentation of project work, 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 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.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

Transitional provisions

After each course, there will be at least six occasions for examination within a two-year period after the end of the course.

Other directives

The course language is English.

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 after the course.

Literature and other teaching aids

Ferrier, Denise R.

Lippincott's illustrated reviews. : Biochemistry

7. ed : Philadelphia : Wolters Kluwer, [2017] - 560 s.

ISBN:9781496344496 LIBRIS-ID:20002081

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

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