Course syllabus for

Basic biology, 7.5 credits

Grundläggande biologi, 7.5 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.
Please note that the course syllabus is available in the following versions:
Autumn2007 , Autumn2008 , Autumn2009 , Autumn2010 , Autumn2011 , Autumn2012 , Autumn2013 , Autumn2014 , Autumn2018 , Autumn2019 , Autumn2020 , Autumn2021

Course code	2PS002
Course name	Basic biology
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Clinical Neuroscience
Participating institutions	• Department of Neuroscience
Decided by	Programnämnden för Psykologprogrammet
Decision date	2007-06-21
Revised by	Education committee CNS
Last revision	2020-04-01
Course syllabus valid from	Autumn 2020

Specific entry requirements

No specific entry requirements.

Objectives

On completion of the course, the student should be able to

Module 1, Evolution and ethology
1. describe at a general level how studies of evolution and behaviour of animals can contribute to the knowledge of human psychology
2. describe at a general level human evolutionary history
3. describe at a general level the mechanisms of biological evolution (mutation and selection) and its results (adaptation)
4. describe at a general level the concept of behaviour and be able to explain relationships between

inheritance, environment and an individual´s behaviour
5. describe at a general level the following concepts: cultural evolution, evolutionary psychology, behavioural ecology, and be able to list different opinions about the importance of our evolutionary history

Module 2, Neurobiology and physiology
1. describe at a general level the structure and function of the eukaryotic cell
2. describe at a general level the localization and function of tissues
3. describe the structure of the nervous system and the localization and function of certain neuroanatomical structures
4. describe the structure of the nerve cell, the action potential and neurotransmission
5. describe at a general level the structure and function of the motor system
6. describe the structure and function of the autonomic nervous system
7. describe at a general level the structure and function of the following organ systems; cardiovascular system, gastro-intestinal tract, liver, kidney and respiratory tract
8. describe at a general level the components and function of blood, immune system and of certain hormone systems
9. identify and briefly describe the competence of the different professionals working in healthcare

Content

The course is divided in two (2) modules, as follows:

Evolution and ethology, 2.5 hp

Grading scale: GU

Part 1 includes evolution ethology and animal psychology and how this can contribute to knowledge about human psychology.

Neurobiology and physiology, 5.0 hp

Grading scale: VU

This module gives the student basic knowledge in human anatomy and physiology with focus on function. The module is further divided into two parts. The first part, neurobiology, deals with the eukaryotic cell and the tissues of the body at a general level. It also includes the structure and function of the nerve cell, glial cells, neuroanatomy, motor behavior and autonomic nervous system in more detail. The second part, physiology, deals with the physiology of rest of the body which includes cardiovascular physiology, respiration, gastro-intestinal tract, endocrinology, immune system and blood at a more general level. A full day about interprofessional learning (IPL) together with other students from semester 1 studying at KI's programmes, is also included.

Teaching methods

Module 1, Evolution and ethology
Teaching consists of lectures that are followed up by seminars where contents from lectures are discussed.

Module 2, Neurobiology and physiology
The main part of the teaching takes place in the form of lectures where the students are encouraged to take active participation. Included is a workshop in neuroanatomy where the students participate in demonstration of human brain tissue and a laboratory session where the students will dissect a lamb´s heart and inspect a human corpse. To the lectures, the students will obtain study questions that they can work independently with. There is also scheduled time when the students can discuss these questions with each another and with teachers. Participation in Karolinska Institutet's "IPL-day" about Interprofessional Learning is compulsary.

Examination

Module 1, Evolution and ethology is assessed in the following way:
a) written examination, is given the grade Fail or Pass

On the module, one of the grades Fail or Pass is given. For the grade Pass on the module, Pass on written examination is required.

Module 2, Neurobiology and physiology, is assessed in the following way:
a) two oral tests, are given the grade Fail or Pass
b) written examination, is given the grade Fail, Pass or Pass with distinction
c) compulsory participation on Karolinska Institutet's IPL-day

On the module, one of the grades Fail, Pass or Pass with distinction is given.
For the grade Pass on the module, Pass on both tests in examination assignment a, Pass on examination assignment b and completed compulsary parts as per schedule are required.
For the grade Pass with distinction on the module, in addition to the above is required Pass with distinction on examination assignment b, the written examination.

Course grade
On the entire course, one of the grades Fail, Pass or Pass with distinction is given.
The grade Pass on the entire course, requires Pass on module 1 and module 2.
The grade Pass with distinction on the entire course, requires Pass on module 1 and Pass with distinction on module 2.

Absence from or unfulfillment of compulsory course elements
The examiner decides whether, and if so how, absence from or unfulfillment of compulsory course elements can be made up for. Study results cannot be reported until the student has participated in or fulfilled compulsory course elements, or compensated for any absence/ failure to fulfill in accordance with instructions from the examiner. Absence from or unfulfillment of a compulsory course element may imply that the student can not retake the element until the next time the course is offered.

Limitation of the number of examinations
Student who do not pass the regular examination are entitled to retake the examination on five more occasions. If the student has carried out six failed examinations/tests no additional examinations will be given. As examination trails, the occasion when the student has participated in the same test are counted. Submission of blank exam is counted as an examination trial. An electronic examination that has been opened via the learning management system counts as an examination trial, even if the examination is not submitted. Examination to which the student registered but not participated in, will not be counted as an examination trial. To be valid for judgement, the examination must be submitted at the given time (osäker!), or the student will be referred to (osäker!) the next examination occasion.

Opportunity for exception from the regulations of the course syllabus of 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 knowledge, skills and attitudes may not be changed, removed or reduced.

Transitional provisions

The transition rules follow KI's local guidelines for examination.

Other directives

Course evaluation takes place according to KI's local guidelines. Results and other measures are returned to the students on the course web.

Literature and other teaching aids

Mandatory literature part 1

The literature of part 1 consists of articles that will be provided before the course starts.

Mandatory literature part 2

Kolb, B.; Whishaw, I. Q.
Fundamentals of human neuropsychology
6th edition : New York : Worth Publicers, 2008

Sand, olav; et al
Människokroppen : Fysiologi och anatomi
Stockholm : Liber, 2007 - 544s
ISBN:9789147084357
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