



**Karolinska
Institutet**

Course syllabus for

Advanced course in stem cell biology and regenerative medicine, 9 credits

Påbyggnadskurs i stamcellsbiologi och regenerativ medicin, 9 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:

Autumn2011 , Autumn2013 , Autumn2014

Course code	4BI076
Course name	Advanced course in stem cell biology and regenerative medicine
Credits	9 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Cell and Molecular Biology
Decided by	Programnämnd 7
Decision date	2011-04-06
Revised by	Programnämnd 7
Last revision	2013-03-21
Course syllabus valid from	Autumn 2013

Specific entry requirements

At least the grade G (pass) on the courses Applied communication in biomedicine 1 including philosophy of science and bioethics, Applied communication in biomedicine 2, Frontiers in translational medicine, Laboratory animal science in theory and practice, and Biostatistics, within the Master's Programme in Biomedicine.

Objectives

Course objectives are to bring together cell biological, biochemical, anatomical, histological, physiological and evolutionary medical approaches to a coherent picture of stem cells in an experimental and clinical context.

With regard to knowledge and understanding

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

- state the reasons for stem cells function in the body and their use in medical context (cell therapy).

With regard to skills and ability

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

- explain the use of the main practical methods of stem cell biology and apply these methods,
- work as an active participant in a research environment,
- present results from research projects, in writing and orally,
- write an application for research funding.

With regard to judgment and attitude

On completion of the course the student should:

- have established a critical and scientific attitude stance,
- take responsibility for own learning.

Content

Part 1. Introduction to stem cell biology and regenerative medicine, 4 weeks.

Part 2. Seminars and journal clubs or participation in conferences, 2 weeks.

Teaching methods

The pedagogic view is based on learning as an active research process. The course is an advanced course and it is the assumption that the students take own responsibility to acquire knowledge. Teaching will be in the form of expert lectures, seminars and group-based work guided by researchers. Group-based and/or individual assignments are included and are presented as written reports and oral presentations. Computers will be used for bioinformatics analysis, searching information and for writing reports and presentations.

Examination

Part 1 will be examined by results of assignments, presented orally or written.

Part 2 will be examined with active participation.

The final grade is based on all examinations in relation to the extent of each part.

Compulsory attendance

Attendance in seminars and group work is compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results will not be registered in LADOK. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

Limited number of examinations or practical training sessions

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

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

Other directives

The course language is English.

Literature and other teaching aids

Course literature is scientific papers and material handout out during the course.