Course syllabus for

**Advanced Course in Stem Cell Biology and Regenerative Medicine, 30 credits**
Avancerad kurs i stamcellsbiologi och regenerativ medicin, 30 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:
Autumn2010, Autumn2012, Autumn2014

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Course code 2QA163
Course name Advanced Course in Stem Cell Biology and Regenerative Medicine
Credits 30 credits
Form of Education Higher Education, study regulation 2007
Main field of study Medicine, Biomedicine
Level Second cycle, contains degree project for Master of Arts/Master of Science (60 credits)
Grading scale Fail (U) or pass (G)
Department Department of Cell and Molecular Biology
Participating institutions
- Department of Medical Biochemistry and Biophysics
- Department of Neuroscience

Decided by Styrelsen för utbildning
Decision date 2010-02-19
Revised by Board of Higher Education
Last revision 2017-05-02
Course syllabus valid from Autumn 2014

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**Specific entry requirements**

A minimum of 210 credits in medicine, biomedicine, odontology, biology, chemistry or biochemistry. Alternatively 210 credits from studies in engineering with a profile in biotechnology or biomedical technology. And proficiency in English equivalent to English B/English 6.

**Objectives**

The aim of the course is to bring together cell biological, biochemical, anatomic, histological,
physiological and evolutionary medical views to a coherent picture of stem cells in an experimental and clinical context.

Knowledge and understanding
On completion of the course, the student should be able to:
- Account for the basics of stem cells function in the body and for their usage in medical contexts.

Skills and ability
On completion of the course, the student should be able to:
- Account for the use of the most important practical methods in stem cell biology, evaluate the methods critically and be able to account for application of these methods.
- Present research projects orally and in written form.

Assessment ability and attitudes
On completion of the course, the student should:
- Demonstrate a critical and scientific approach.

Content

The course is divided into two parts and includes basic theoretical and experimental knowledge in stem cell biology and regenerative medicine.

Stem cells from the laboratory to the clinic, 9 hp
Initial parts including lectures, discussions and group assignments in stem cell biology and regenerative medicine, and central concepts in translational research from the laboratory to the clinical practice.

Experimental project in stem cell biology, 21 hp
Experimental research project under supervision in stem cell biology. The research project can also be in the form of an essay that is experimental aimed. In this part is also included participation in the departmental research seminars and journal clubs.

Teaching methods

The course is an advanced course, in which the students are assumed to be familiar with the most common working methods in higher education. The educational basic view of the course is based on a learning that is an active research process.

The teaching is given in the form of group tuition, expert lectures, laboratory work or essay writing under supervision. The student should also carry out critical studies of scientific work.

Compulsory attendance:
In the course included group assignments, written examinations, seminars, group meetings, journal clubs and practical parts (laboratory sessions or essay writing) are compulsory. More than 10% absence from the practical parts of the course is compensated by additional laboratory work (Part 2). More than 20% absence from seminars, group meetings and medical journal clubs has to be compensated by a written essay according to the instructions of the course administration.

Examination

Part 1: The part is examined with presentation of group assignments and individual work.

Part 2: The project is examined formative under supervision, and with a final seminar where the student presents his own work during this part.
A student who has failed in the regular examination, is entitled to participate in five more examinations. If the student has failed six examinations/tests, no more examination is offered. 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 regarded as an examination.

**Transitional provisions**

The course has been **cancelled** and was offered for the last time in the fall semester of 2014. Examination will be provided until the spring of 2018 for students who have not completed the course.

**Other directives**

Language of instruction: English.

Course evaluation will be carried out according to the guidelines established by the Board of Education.

Courses substitute earlier course with course code 2QA032 and 2QA006.

**Literature and other teaching aids**