



**Karolinska  
Institutet**

Course syllabus for

## **Tumor Biology, 9 credits**

Tumörbiologi, 9 hp

This course syllabus is valid from autumn 2020.

Please note that the course syllabus is available in the following versions:

[Autumn2011](#) , [Autumn2013](#) , [Autumn2014](#) , [Autumn2015](#) , [Autumn2016](#) , [Autumn2019](#) , [Autumn2020](#)

|                            |   |
|----------------------------|---|
| Course code                | 4BI079  |
| Course name                | Tumor Biology   |
| 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 Microbiology, Tumor and Cell Biology      |
| Decided by                 | Programnämnd 7  |
| Decision date              | 2011-04-06  |
| Revised by                 | Programme committee for study programmes in biomedicine |
| Last revision              | 2020-03-06  |
| Course syllabus valid from | Autumn 2020   |

### **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**

On completion of the course the student should:

With regards to knowledge and understanding

- understand the basic principles in cancer biology,

With regards to competence and skills

- be able to give an overview of the cancer problem, the modern view on what cancer is, from a basic to a clinical perspective,

- be able to explain the most important problems that need to be solved regarding cancer biology,
- be able to explain tumour progression and metastasis,
- be able to describe and understand different methods used for drug development in oncology

With regards to judgment and approach

- demonstrate an ability to discuss and understand advanced problems in cancer biology.

## Content

The course consists of several parts addressing several aspects of cancer biology.

### **Tumor biology part 1, 5.0 hp**

Grading scale: GU

### **Tumor biology part 2, 4.0 hp**

Grading scale: GU

## Teaching methods

The educational view is based on learning as an active research process. The course is an advanced course, and it is assumed that the student takes responsibility to acquire knowledge. The teaching will take place in the form of expert lectures, seminars and group assignments led of researcher. Group - and/or individual assignments are included and are presented as written reports and oral presentations.

## Examination

The examination consists of written assignments or written exams and/or oral presentations. Each part must have been passed in order to obtain the grade of Pass for the whole course.

Compulsory participation:

Course introductions, group assignments, seminars and demonstrations are 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.

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.

## **Literature and other teaching aids**

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

One book is recommended covering the whole subject:

Weinberg, Robert A.

The biology of cancer

2. ed. : New York : Garland Science, 2014 [dvs 2013] - 876, 6, 30, 28 s.

ISBN:9780815342205 (hft.) LIBRIS-ID:14608758