Course syllabus for

Immunology and Infection, 6 credits

Immunologi och infektion, 6 hp
This course syllabus is valid from autumn 2022.

Course code	4BI129
Course name	Immunology and Infection
Credits	6 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
Participating institutions	• Department of Neuroscience • Department of Medicine, Huddinge • Department of Medicine, Solna
Decided by	Programme committee for study programmes in biomedicine
Decision date	2022-09-23
Course syllabus valid from	Autumn 2022

Specific entry requirements

At least the grade G (Pass) for the courses Frontiers in Biomedicine, Applied Biostatistics, Bioinformatics, semester 1 elective course, Bioethics and Laboratory Animal Science, Applied Biomedical Communication and Professional Development, and registration for the course Frontiers in Biomedicine: Research Project 1, within the Master's Programme in Biomedicine.

Objectives

The course is directed to students with an interest in immunology and infection biology. The aim is to extend the knowledge of the students within these fields and to expose students to cutting edge science conducted not only at Karolinska Institutet, but also at research institutes around the world.

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

Regarding knowledge and understanding

- Demonstrate knowledge and discuss views of our current understanding of areas within immunology and infection;

- Demonstrate understanding of how different technologies are used that increase our ability to examine the intricacies of the immune system and microbial life;
- Demonstrate understanding of the links between infections and the immune system and how these interactions affect normal physiology or pathophysiology;
- Describe how rates of infections are affected by changes in the environment.

Regarding competence and skills

- Identify the appropriate techniques for addressing specific research questions in immunology and infection;
- Acquire, critically review, report accurately and discuss literature within immunology and infection biology in both speech and writing;
- Postulate questions on the links between immunology and infection biology and how these two subject areas connect;

Regarding judgement and approach

- Explain how infection biology and immunopathology affect individuals as well as nations and to put in perspective the costs these have on society both at the national and global levels;

Content

The course consists of several modules covering the fields of molecular immunology and infection biology.

Teaching methods

The modules are based on lectures from experts in their fields as well as peer learning such as group work and presentations.

Examination

Examination is performed at the end of each module and consists of oral and/or written assignments. Examination format will be communicated at the latest at the start of each module. The grading scale is fail/pass (U/G). To pass the entire course, a student must obtain the grade of pass (G) for all modules in the course.

Compulsory participation
Seminars, group work and demonstrations are compulsory according to information provided by each module. The course examiners assess if and, in that case, how absence from compulsory components can be compensated for. A student's study results cannot be finalised/registered until the student has participated in the compulsory components or compensated for their absence in accordance with the examiner's instructions. Absence from a compulsory component may mean that the student cannot compensate for absence until the next time the course is given.

Limitations of the 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 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.

Other directives

The course language is English and examination is performed in 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 during the course.

Literature and other teaching aids

Murphy, Kenneth; Weaver, Casey

Janeway's immunobiology

9th edition. : New York, NY : Garland Science/Taylor & Francis Group, LLC, [2016], 2017 - xx, 904 pages

ISBN:9780815345053 LIBRIS-ID:19475010

Library search

Murray, Patrick R.; Rosenthal, Ken S.; Pfaller, Michael A.

Medical microbiology

Ninth edition. : Amsterdam : Elsevier, 2020 - 1 volume

ISBN:9780323673228 LIBRIS-ID:v69mtg3wsrjprj96

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