

## Syllabus

### **BI7018.1 Immunology, 15.0 credits**

#### **Immunologi**

The course is given as course independent of study programme

Syllabus discontinued 5 March 2009

Version 1 in Slukurs. Corresponds to version 1 in Ladok

#### **Syllabus approved**

13 September 1995

The version applies to students admitted from autumn 1999 to spring 2008

The version is not a module version

#### **Subjects**

Biology

#### **Education cycle**

First cycle

#### **Modules**

| Title         | Code | Credits |
|---------------|------|---------|
| Single module | 0101 | 15.0    |

#### **Advanced study in the main field**

#### **Grading scale**

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

**Language**

Swedish

**Prior knowledge**

The equivalent of: 40 Swedish University Credits (SUC) in Biology including 20 SUC in Biochemistry and Cell Biology.

**Objectives**

The course gives the student basic knowledge in immunology and immunological techniques. After the course the students will:

- know the components in immune reactions and be able to describe their structure, function and development
- know the important types of immunological mechanisms that explain sensitivity and resistance to infections and tumors
- know immunological mechanisms considered important in autoimmune diseases and hypersensitivity as well as in transplantations
- know special immunological mechanisms such as immunological tolerance and memory
- have good knowledge of the principles and practice of immunological methods.

**Content**

Lectures giving an overview of the immune system, as well as lectures that provide in-depth knowledge in selected areas:

Antigen and antigen recognition (T-cell receptor, immunoglobulins, transplantation antigens), activation of T- and B-cells, control of immune reactions, anatomy of the immune system, inflammation, vaccine technology, immunological tolerance and autoimmunity, immune defects and immune system evolution.

Seminars/group discussions dealing with special immunological issues and relevant scientific publications are held in parallel.

Practical laboratory exercises include cell culture, the hybridoma technology, different methods for determination of antibodies and antigens, purification of antigens and antibodies, flow cytometry and immuno-histochemistry.

**Implementation**

Lectures ca 60 h

Seminars/group discussion ca 25 h (compulsory)

Laboratory exercises ca 100 h (compulsory)

**Examination****Requirements for examination**

Written intermediate test as well as a final examination.

Participation in seminars/group discussions and laboratory exercises, as well as passing intermediate test and final examination.

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

**Additional information**

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

**Responsible department**

Department of Biomedical Sciences and Veterinary Public Health

**Supplementary Information**

*Finalized by:* Lantbruksvetenskapliga fakulteten

*Biology Area:* Other Biology Courses