



## DEPARTMENT OF MEDICINE, HUDDINGE

### **H7F6000, Vaccine to Vaccination: from Science to Society , 1.5 credits (hec)**

Vaccin till vaccination: från vetenskap till samhälle, 1,5 högskolepoäng

*Third-cycle level / Forskarnivå*

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#### **Approval**

This syllabus was approved by the The Committee for Doctoral Education on 2024-01-31, and was last revised on 2024-05-03. The revised course syllabus is valid from autumn semester 2024.

#### ***Responsible department***

Department of Medicine, Huddinge, Faculty of Medicine

#### **Prerequisite courses, or equivalent**

No prerequisite courses or equivalent are required for this course.

#### **Purpose & Intended learning outcomes**

##### **Purpose**

The five-day course provides a comprehensive overview of vaccinology with a focus on practicality. Beginning with a refresher in epidemiology and immunology, the course moves through the vaccine development spectrum from applied topics in discovery to development and delivery. The course is a combination of lectures and interactive case studies presented and facilitated by experts from academia, industry, government, and non-governmental organizations. World-renowned experts from various fields such as vaccinology, immunology, and infectious disease epidemiology participate as faculty members.

##### **Intended learning outcomes**

After the course, the participants should be able to:

- Understand the basics of the process of developing vaccines, from lab to clinic.
- Discuss different types of vaccines and technologies to produce and deploy them.
- Understand social science aspects of vaccines, including vaccine hesitancy, communication, behavioral science, and health economics.

- Account for the process of implementing vaccination from epidemiology and effectiveness studies to deployment of vaccination campaigns.

## Course content

This course offers a 5 days program with lectures and case studies providing a comprehensive overview of vaccinology from the lab to policy. The topics include immunology and epidemiology relevant to vaccines, as well as vaccine discovery, development and delivery. Also other aspects such as vaccine hesitancy, as well as policy issues will be covered.

## Forms of teaching and learning

The course is split into different sessions, including traditional lectures given by international experts in the field, case studies and a site visit. Extra time for group work is included for students to prepare for a presentation on the final day of the course.

### *Language of instruction*

The course is given in English

## Grading scale

Pass (G) /Fail (U)

## Compulsory components & forms of assessment

**Compulsary components:** Students must attend all lectures and complete the examination. Compensation for absence in the form of a written essay can be discussed with course leaders. More than one of absence cannot be compensated for.

**Form of assesment:** The examination includes group work in groups of 3-4. Groups are required to prepare a presentation on vaccines for different infectious agents. Groups should: 1. Choose an infectious disease with a significant burden in Low- and Middle-Income Countries (LMICs), 2. Investigate disease burden in LMICs, the landscape of vaccine development and 3. the availability of R&D funding (find at least one potential call for funding – does not need to be currently open). On the final day of the course your group should give a 10-minute presentation on the vaccine landscape for the selected infectious agent. Each student will actively present. Based on the presentation and following discussion, the student should show that they have reached all learning outcomes.

## Course literature

Hand-outs provided by the lecturers.