DEPARTMENT OF GLOBAL PUBLIC HEALTH

K9F5236, Improving Use of Medicine, Focusing on Antibiotics, 1.5 credits (hec)

Förbättrad läkemedelsanvändning, med fokus på antibiotikaanvändning, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by The Committee for Doctoral Education on 2023-12-05, and was last revised on 2026-02-26. The revised course syllabus is valid from spring semester 2026.

Responsible department

Department of Global Public Health, Faculty of Medicine

Prerequisite courses, or equivalent

No prerequisite courses, or equivalent, demanded for this course.

Purpose & Intended learning outcomes

Purpose

This course will help participants to understand, discuss and apply key concepts of medicines in health systems and use of medicines across countries on different income levels. The special focus will be on the global antibiotic use and growing threat of antibiotic resistance. Participants will have opportunities to exchange knowledge and experience throughout the lectures in the course. Further opportunities for networking will be provided during group assignments with other participants in multicultural and multidisciplinary context.

Intended learning outcomes

At the end of the course students will be able to:
- Recognise the role of medicines in health systems as well as understand and discuss the importance of systems approach in medicines use.
-Identify, analyse and discuss factors influencing antibiotic use and resistance in various contexts and its impact on global health

- Propose and evaluate different methods to improve use of medicines, and in particular antibiotics considering various contexts.

Course content

The following content will be covered during the course:
• The tools used in drug utilisation research such as ATC/DDD, together with methods to collect appropriate data to show the level of medicine use in a given population.
• Access to essential medicines as one of the six building blocks of well-functioning health systems and the role of essential medicines in universal health coverage.
• Examples of antibiotic use from countries on different income levels and from different parts of the health system.
• Factors affecting antibiotic use, both on macro- and micro-level.
• The methods to monitor global, national and local antibiotic consumption and resistance.
• The burden of antibiotic resistance and economic consequences.
• Lectures on introduction to changing behaviour, methods to improve use of medicines (in particular antibiotics) including the role of guidelines and various kinds of information or educational interventions directed to health care professionals, general public or policy makers.
• Methods to evaluate such interventions
• One Health approach: use of antibiotics in livestock, antibiotic residues and resistance in the environment

Forms of teaching and learning

This is a blended-learning course i.e. a combination of classroom and online activities. During the course learning platforms and e-meeting tools e.g. Canvas and Zoom are used. Learning activities include synchronous (i.e. real-time, on campus) and asynchronous (video recorded, on-line) lectures, seminars and group work. The course is extended over 1-2 weeks but is equivalent to one- week full-time work.

Language of instruction

The course is given in English

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

It is compulsory to attend all the synchronous lectures and to participate in the group work concluded with the presentation. Absence in the mandatory lectures has to be communicated with the course organizers and if needed compensated by extra individual assignments.

Forms of assessment

To pass the course the participants need to demonstrate that the intended learning outcomes have been achieved. A written individual assignment and presentation of group work constitute the examination of the course. Each student will be individually assessed.

Course literature

Recommended literature (updated during the course)
1. WHO. Global Action Plan to Combat Antimicrobial Resistance, 2015. Available at: http://apps.who.int/iris/bitstream/handle/10665/193736/9789241509763_eng.pdf?sequence=1
2. WHO. Antimicrobial resistance: global report on surveillance. 2014 Available at: http://apps.who.int/iris/bitstream/10665/112642/1/9789241564748_eng.pdf?ua=1 3.
3. WHO. Medicines in Health Systems, 2014. Available at: http://www.who.int/alliance-hpsr/resources/FR_webfinal_v1.pdf
4. When the Drugs Don't Work Antibiotic Resistance as a Global Development Problem. Available at: https://www.daghammarskjold.se/publication/when-the-drugs-dont-work-antibiotic-resistance-as-a-global-development-problem/
5. Sustainable Development Goals. Available from: https://sustainabledevelopment.un.org/?menu=1300

In addition, current scientific publications (e.g. research articles and theses) suggested by the course leaders and lecturers as appropriate