



# Course Syllabus

**Course title in Swedish:** Metod i försvarssystem

**English title:** Methods in Systems Science for Defence and Security

**Course code:** 2MF008  
**Valid from:** Autumn term 2019  
**Date of establishment:** This course syllabus was established by the Research and Education Board's Course Syllabus Committee at the Swedish Defence University on 2019-01-28  
**Department:** Department of Military Studies  
**Subject:** Systems Science for Defence and Security  
**Level:** Second cycle  
**Scope:** 15 higher education credits

## **Prior knowledge requirements and other preconditions for admission to the course**

Admitted to the Master's Programme in Defence and Security Systems Development.

## **Main field of study**

Systems Science for Defence and Security

## **Gradual specialisation**

A1N second cycle, with prior knowledge requirements consisting solely of first-cycle course(s).

## **Level of specialisation**

-

## **Course content and structure**

The purpose of the course is to provide the student with the necessary knowledge to participate in and benefit from development work, based on a scientific approach and with an independent ability to analyse, reflect and critically evaluate this work. The course deals with key elements of the research process, with a focus on problem formulation, research design, data collection methods and analytical methods. The course is divided into two modules.

### **Module 1 – Scientific Theory, Research Design and Methodology (7.5 HE credits)**

The purpose of this module is to provide a more in-depth theoretical scientific understanding linked to the student's own field, including from a social constructionism perspective. The fundamentals of research design will be addressed, as will a number of methods for data collection and analysis. The emphasis will be on qualitative methods. The module will specifically focus on field studies.

Date  
08.05.2018

## Module 2 – Simulation, Modelling and War Games (7.5 HE credits)

The purpose of this module is to provide the student with a theoretical and methodological understanding of the opportunities and challenges presented by modelling, simulation and war games. The student shall be provided with knowledge of how they can evaluate results and understand the strengths and weaknesses of various methods and the types of answers they can provide.

Teaching will be conducted in the form of lectures, independent study and seminars. Module 2 will also utilise teaching in the form of computer lab experiments and war games.

### **Intended learning outcomes**

On completing the course, the student shall be able to:

#### *Module 1*

- explain basic scientific and epistemological concepts and relate these to their own field of defence systems;
- compare and evaluate various methods for data collection and analysis base on a specific issue; and
- identify and assess various ethical aspects of research and development activities.

#### *Module 2*

- demonstrate the ability to critically and systematically integrate knowledge, as well as the ability to model, simulate, predict (within given parameters) and evaluate sociotechnical defence systems; and
- demonstrate the ability to critically and systematically review models, simulations and war games and the results thereof.

### **Assessing knowledge and examination**

Examination will be through two individual written assignments, one for each module.

The examiner may decide that supplementary work is required in order for a pass grade to be achieved. Examination papers submitted late will not be graded, unless there are special reasons, which have been approved by the examiner. Supplementary assignments are to be submitted no later than five working days after the notification of results and the supplementary assignment for the examination in question, unless there are special reasons, which have been approved by the examiner.

### **Number of examination opportunities**

There is no limit on the total number of examination opportunities. The total number is restricted to one ordinary examination and two retakes in any two-term period, unless special circumstances exist that are acceptable to the examiner.

Date  
08.05.2018

**Grades**

Grades are set according to a three-grade scale: Pass with merit (VG), Pass (G) and Fail (U).

A passing grade (G) requires a pass for the two individual written assignments.

A pass with merit (VG) requires a pass with merit (VG) for the two individual written assignments.

Grading criteria are stated in the course description.

**Course literature and additional teaching materials**

See Appendix 1

**Interim regulation**

When a course is no longer provided or when the content of a course has been significantly altered, the student/participant retains the right to be examined in accordance with this course syllabus once per term during a three-term period.

**Other**

The course is held as a compulsory element of the Master's Programme in Defence and Security Systems Development.

The course may be held within the framework of contract education.

On the completion of the course, an evaluation will be conducted under the auspices of the course director, which will form the basis for any changes to the course.

The course will be held in English. If no international students are admitted, parts of the course may be held in Swedish.