

# Syllabus

for course at advanced level

**Insurance Mathematics, Degree Project**

**Försäkringsmatematik, självständigt arbete**

**30.0 Higher Education**

**Credits**

**30.0 ECTS credits**

<b>Course code:</b>	MT9012
<b>Valid from:</b>	Spring 2019
<b>Date of approval:</b>	2018-08-20
<b>Department</b>	Department of Mathematics (incl. Math. Statistics)
<b>Main field:</b>	Actuarial Mathematics
<b>Specialisation:</b>	A2E - Second cycle, contains degree project for Master of Arts/Master of Science (120 credits)

## Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University on 27 September 2006.

## Prerequisites and special admittance requirements

Prerequisites are a Bachelor's degree or equivalent, and a knowledge equivalent to the courses Mathematical Methods in Life Insurance I, SC, 7.5 hp (MT7012) and Mathematical Methods in Life Insurance II, SC, 7.5 hp (MT8003), Risk models and claims reserving in non-life insurance, SC, 7.5 hp (MT7027) and Non-life insurance pricing, SC, 7.5 hp (MT7028). Swedish upper secondary school course English B/English 6 or equivalent.

## Course structure

Examination code	Name	Higher Education Credits
FMEX	Insurance mathematics, degree project	30

## Course content

In the course, a research project in insurance mathematics is planned, executed and presented. The work should be described in a written work plan that must be approved by the supervisor.

## Learning outcomes

It is expected that the student after taking the course will be able to:

- apply advanced mathematical statistics methods to solve a submitted task
- display understanding of the submitted task and the knowledge about the theoretical background
- interpret and do correct analysis of the result
- work independently according to the approved time schedule
- present acquired results in oral and written way.

## Education

The education consists of supervision of project work.

The student has a right to at least 20 hours of supervision, of which at least 7 hours should be individual supervision. In special circumstances the student can be appointed another supervisor. Requests regarding this could be made to the department board.

Supervision is given during the planned time of the course, thereafter supervision is only given under special circumstances.

### **Forms of examination**

a. Examination for the course is in the following manner: measurement of knowledge takes place through a written report and a presentation in a seminar of the degree project.

b. Grading is carried out according to a 7-point scale related to learning objectives:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Sufficient

Fx = Fail

F = Fail

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade of E is required to pass the course.

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term “examination” here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

### **Interim**

Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

### **Limitations**

The course may not be included in a degree together with the course Insurance Mathematics, Degree Project (MT9007).

### **Misc**

The course is a component of the Master's Programme in Actuarial Mathematics, and it can also be taken as an individual course.

### **Required reading**

The literature is constituted by scientific publications and reports within the relevant field, found by the student through literature search, and literature distributed by the supervisor.