



Faculty of Economic Sciences, Communication, and IT

## Programme Study Plan

<b>Programme Code:</b>	SGMEK
<b>Programme Title:</b>	Study Programme in Mathematics, Business Administration and Economics
<b>ECTS Credits:</b>	180
<b>Approval:</b>	The programme study plan was approved by the Faculty Board of Economic Sciences, Communication, and IT on 22 February 2007 and is valid from the autumn term of 2007.
<b>Language of Instruction:</b>	Swedish
<b>Degree Level:</b>	Bachelor's
<b>Degree Type:</b>	General
<b>Prerequisites:</b>	General admission requirements plus upper secondary school level English B, Mathematics C and Social Science A. Mathematics D is recommended.

### General Information

There is an increasing demand for economists skilled in applying mathematical and statistical methods. The programme provides a solid theoretical foundation for business and economic professions as well as for future research. The programme combines

economic and business studies with mathematics and statistics. It is designed to provide qualifications for management-level positions in the public and private sector. Special emphasis is given to the coordination of theoretical and practical issues, on the one hand, and logical structuring and mathematical problem-solving, on the other. Programme graduates are particularly qualified for work in the industry, banking, insurance and financial institutes where there is a need for mathematical planning and analysis.

### **Aims**

For a Bachelor's Degree the students should not only demonstrate the knowledge and skills usually required in the field of business and economy but also highly developed analytical skills. Mathematical economists should be attractive candidates to positions requiring mathematical knowledge and analytical ability.

### *Knowledge and understanding*

For a Bachelor's degree, students should

- demonstrate knowledge of the theoretical bases and applicable methods in the chosen field of business and economy, familiarity with current research and development work, and in-depth knowledge of the theory and methods of the main field of study,
- demonstrate ability to apply different statistical methods in economics and in business administration,
- demonstrate ability to solve advanced quantitative problems using their knowledge in mathematics and statistics,
- demonstrate knowledge and understanding of different marketing conditions.

### *Skills and abilities:*

For a Bachelor's degree, students should be able to

- collect and critically interpret information regarding business administration and economics,
- seek, gather and understand research findings in the main field of study,
- propose relevant solutions to business and economic problems related to their specialisation,
- carry out qualified studies and demonstrate the ability to present results according to standard academic conventions.

### *Attitude and assessment abilities*

For a Bachelor's degree, students should

- demonstrate a mode of working and thinking that prepares them for life-long learning,
- demonstrate oral and written skills and the ability to argue for their conclusions,
- demonstrate understanding of the importance of leadership and its exercise.

**Programme Structure**

The education comprises 180 ECTS cr., which is equivalent to full-time study, three years. In the first year students study mathematics 30 ECTS cr. and business administration 30 ECTS cr. In the second year students study statistics 30 ECTS cr. and economics 30 ECTS cr. In the third year students take either business administration (B and C) 60 ECTS cr. or economics (B and C) 60 ECTS cr. depending on their choice of specialisation. Instruction is in the form of lectures, exercises, case studies and oral and written presentations.

For a Bachelor's degree, students should have completed an independent project (degree project) of at least 15 ECTS cr. in the main field of study.

**Programme Curriculum**

In year 1 and year 2 students take basic courses in the main subjects. Mathematics include introductory mathematics, linear algebra, analysis I and II. Business administration covers marketing, organisation and ethics, external accounting and financial control. In statistics students study probability theory, statistical inference, econometry and investigation methods. In economics, students study micro and macro economy.

In year 3 students choose a major specialisation, business administration and economics, depending on their individual preference. They are free to choose among the specialisation courses offered in their chosen major.

**Degree Title**

Degree of Bachelor of Science in Business and Economics, 180 ECTS cr.

**Credit Transfer**

Students may transfer credits from previously completed university courses subject to approval. Transfer of credits for a full course, or other credits, is subject to the approval of the Student Centre. Transfer of credits from a course module is subject to the approval of the course examiner.

**Additional Information**

The local regulations for undergraduate studies at Karlstad University stipulate the obligations and rights of students and staff.