



Programme syllabus

[An accessible version of the syllabus can be found in the Course and programme directory.](#)

Degree Programme in Engineering and Economics 180 credits

Högskoleingenjörutbildning i teknik och ekonomi

Valid for students admitted to the education from spring 09 (HT - Autumn term; VT - Spring term).

This is a translation of the Swedish, legally binding, programme syllabus.

Programme objectives

Technology and economics is a thematic line of study at KTH School of Technology and Health. This education combines a traditional 3 year education in engineering within an individually chosen area of technology with studies in economics covering various aspects within 37,5 ECTS credits to be certified. The aim of this study line is that the graduating engineer should achieve inter alia ability to work independently with evaluation of effects of technological solutions and innovation on business, on the economy and on society. In the study of business economics technology and economics are integrated, frequently with illustrations from various technology-based companies.

Knowledge and understanding

Skills and abilities

Ability to make judgements and adopt a standpoint

Extent and content of the programme

Eligibility and selection

Implementation of the education

Structure of the education

During the first half of term 1, the students have two courses in parallel, Calculation and entrepreneurship, the purpose of which is to give the student ability for relevant qualitative and quantitative business calculation methods in companies with advanced orientation towards technology, and the course External Accounting. This course aims at giving the student understanding in depth of modern accounting theory as well as ability to apply fundamental concepts and methods for the analysis of accounting needs and related challenges. This includes knowledge and understanding of taxation. The student shall in the form of a project formulate a business plan, focusing especially on the business project and calculations. During the second half of term 1 the students read a Course in marketing that basically treats the same theory as do traditional study courses in the subject. From the point of view of the manufacturing industry function and solving problems are mostly focused, whereas human identification and received confirmation are central buyer motives in the consumer goods market. This fundamental difference between the producer goods and consumer goods markets is a main aspect of this study course. Beside the parts dealing with product development, designing methods and logistics this course aims at giving basic understanding of connections and interaction between technology and economics. During this period also in parallel, the students have the course Financing and organization theory. The purpose of the course is that the student should be able:

- to execute credit ratings similar to those made by banks regarding borrowing firms.
- to estimate capital needs in the short term and the long term.
- to provide a document with data and analysis for decision on changes and expansion of small enterprises.

- to apply basic knowledge in business organization theory.

The fifth course in economics, Applied industrial economics, corresponds to the B level and is read during the terms 4 and 5. This course integrates knowledge of technology with modelling and methodology in business economics. The students are receiving strengthened professional abilities in applying business economics as a working model in interaction with their knowledge as technical specialists. Their professional field is supported by the broader economic perspective. When the students start their sixth and last term they will have accomplished 37,5 certified ECTS credits in business economics and produce for examination a study report, corresponding to 15 certified ECTS credits and integrating the mainly chosen branch of technology with economics.

Courses

The programme is course-based. Lists of courses are included in appendix 1.

Grading system

Courses in the first and the second cycle are graded on a scale from A to F. A-E are passing grades, A is the highest grade. The grades pass (P) and fail (F) are used for courses under certain circumstances.

Appendix 1 - Course list

Appendix 2 - Programme syllabus descriptions



Appendix 1: Course list

Degree Programme in Engineering and Economics (TITEH)

General courses

Year 1

Mandatory courses (30.0 Credits)

| Code | Name | Credits | Edu. level |
|------------------------|--|---------|-------------|
| HH1801 | Business Calculation and Entrepreneurship | 7.5 hp | First cycle |
| HH1802 | Business Finance and Organizational Structures | 7.5 hp | First cycle |
| HU1800 | External Accounting | 7.5 hp | First cycle |
| HU1801 | Industrial Marketing | 7.5 hp | First cycle |



Appendix 2: Specialisations

Degree Programme in Engineering and Economics (TITEH)

This programme has no specialisations.