



# FIK3618 Teleconomics, Advanced Course 7.5 credits

Tele-ekonomi, avancerad kurs

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

## Establishment

Course syllabus for FIK3618 valid from Spring 2015

## Grading scale

G

## Education cycle

Third cycle

## Specific prerequisites

PhD students admitted to KTH programs

The students should have done the HW1-3 assignments in IK2514 or similar assignments in techno-economic basic course at the PhD level.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After the course the PhD students should be able to analyze the following aspects:

- to analyze telecom markets in terms of services, market segments and actors
- to describe basic regulatory tools and the impact on competition & pricing
- to use business modeling and business strategy concepts to analyze mobile operators and mobile service providers, including services offers and value network
- to make a mobile broadband network design given demand, dimensioning principles, cost and performance figures including to model and analyze the cost structure

The focus of the course is:

- To analyze different mobile solutions and services in an overall context with business, market & regulatory aspects
- To do this with an "senior researcher" approach being able to handle multiple perspectives and uncertainty

The course is designed in order to:

- Help the PhD students to see "outside the box"
- Provide PhD students with knowledge and insights that can support problem formulation & motivation and provide an overall picture for the own PhD thesis
- Share insights, concerns and problems with other students

## Course contents

The course will cover techno-economic aspects on three different levels

1. Technology and services
2. Business models and strategy of companies
3. Market structure, competition and regulation

The course will be performed "bottom up", i.e. levels 1->2->3.

This is in contrast to the techno-economic basic course which is performed "top down", i.e. level 3->2->1

## Disposition

The course is a reading course with individual work assignments with oral and written reportss including self-reflections on the own research problems and topics.

The course contains lectures and seminars with a high involvement of students and using research areas and topics of the individual PhD students.

Each student will use an own case for his/her research

- A technical or service solution or concept
- The solution/concept is studied at each level: technical/service; business; market.

The students will

- write own analyses of the chosen concept for each level
- review analyses and reflections of other students
- review research papers from reading list
- look for useful papers supporting their own research

## Course literature

## Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Examination is based on

- A number of assignments to present before/during each seminar
- A final report to be submitted during the Autumn

## Other requirements for final grade

Approved home work assignments for all levels and a an approved final report, no exam

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.