



# El2400 Applied Antenna Theory

## 7.5 credits

Tillämpad antennteknik

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

### Establishment

Course syllabus for El2400 valid from Autumn 2007

### Grading scale

A, B, C, D, E, FX, F

### Education cycle

Second cycle

### Main field of study

Electrical Engineering

### Specific prerequisites

### Language of instruction

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

### Intended learning outcomes

When the students have passed the course they shall

- have good knowledge about properties of different antenna elements
- be able to analyse and design antenna systems
- be able to simulate antennas and antenna systems using numerical methods
- be able to perform antenna measurements
- be able to use methods for antenna synthesis
- have a background necessary to study scientific and technical papers in the area

## Course contents

### Lectures

The course takes a “hands on” approach. Projects and laboratory work are the principal parts. The student will design antennas, build them and measure their properties. The lectures discuss antenna types, antenna synthesis, system aspects on “transmitter – to – receiver” problems, propagation, numerical methods and different aspects of antenna measurements.

### Exercises:

Problem solving related to the various parts of the course.

## Course literature

Balanis: Antenna Theory. Analysis and Design.

## Examination

- PRO1 - Project, 4.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 3.5 credits, grading scale: A, B, C, D, E, FX, F

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.

## Other requirements for final grade

Laborations (LAB1; 3,5 cr.)

Projects (PRO1; 4 cr)

## 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.