

**SYLLABUS**

# **Intelligent Technology - Calculation and programming 7.5 credits P0048A**

**Framtidens intelligenta teknik - Beräkning och programmering**

**Course syllabus admitted: Autumn 2013 Sp 1 - Spring 2015 Sp 4**

**DECISION DATE  
2013-06-20**

# Intelligent Technology - Calculation and programming 7.5 credits P0048A

## Framtidens intelligenta teknik - Beräkning och programmering

### First cycle, P0048A

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	U G#	Teoretisk neurovetenskap	Other Subjects within Technology

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Minimum 30 ECTS in the areas of Cognitive Science, Computer Science and/or Neuroscience.

Alternatively minimum 30 ECTS including (P0012A) Intelligent Technology – Computation and the Brain.

## Selection

The selection is based on 1-165 credits.

## Examiner

Peter Bengtsson

## Course Aim

The student shall learn basic computational and programming models in Theoretical neuroscience, and obtain basic skills in simulating human cognition. The course is for engineers, behavioural scientists, natural scientists and others who want to learn about a highly topical and exciting field of research, applying to advanced intelligent machines.

## Contents

Methods for calculation and programming within the field of Theoretical neuroscience.

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.  
Internet course, comprising individual studies.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Assignments and laboratory sections.

## Remarks

Students must register for the courses themselves, or contact ETKS educational administration [eduetks@ltu.se](mailto:eduetks@ltu.se), not later than five days after the quarter commences. Failure to do so can result in the place being lost. This rule also applies to students with a guaranteed place.

Course pace is flexible.  
Taught in Swedish and English.

Associated courses are:  
P0008A Intelligent Technology of the future – Cognitive science;  
P0012A Intelligent Technology – Computation and the Brain;  
P0048A Intelligent Technology – Calculation and Programming;  
P0058A Intelligent Technology – Scientific Method;  
P0059A Intelligent Technology – Project Work;  
P7010A Intelligent Technology – Cyborgs & Humanoid Robots;  
P0034A Intelligent Technology – Computational Neuroscience;  
P7023A Intelligent Technology – Scientific Work.

## Literature. Valid from Autumn 2012 Sp 1

Relevant reference literature is chosen by the student/students

## Course offered by

Department of Business Administration, Technology and Social Sciences

## Items/credits

Number	Type	Credits	Grade
0002	Introduction	0.5	U G#
0003	Assignment Report, Laboratory work, Seminars	7	U G#

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Last revised

by Director of Undergraduate Studies Bo Jonsson, Department of Business Administration, Technology and Social Sciences 2013-06-20

## Syllabus established

by Department of Human Work Sciences 2008-12-15