COURSE SYLLABUS

Tillämpad artificiell intelligens
Applied Artificial Intelligence
7.5 credits (7,5 högskolepoäng)

Course code: DV2557
Main field of study: Computer Science
Disciplinary domain: Technology
Education level: Second cycle
Specialization: A1N - Second cycle, has only first cycle course/s as entry requirements

Language of instruction: English
Applies from: 2021-08-01
Approved: 2021-04-19
Discontinued: 2022-06-07

1. Decision

This course is established by School of Computing 2013-11-27. The course syllabus is approved by Head of Department of Computer Science 2021-04-19 and applies from 2021-08-01.

2. Entry requirements

Admission to the course requires completed courses 15 ECTS credits in programming, with a minimum of 5 ECTS credits in data structures and algorithms.

3. Objective and content

3.1 Objective

Artificial intelligence exists in different forms in an increasingly bigger part of the computerized systems we use - Optimization techniques in logistics, computer-controlled characters in computer games, decision support systems, imaging algorithms and mobile robots. This purpose of the course is to introduce students to the field of artificial intelligence and some of its applications.

3.2 Content

The course includes a historical overview of AI-field development, with emphasis on major milestones from an application perspective. Areas covered include
• knowledge representation
• expert systems
• planning
• pattern recognition
• natural language processing
• agent system

4. Learning outcomes

The following learning outcomes are examined in the course:

5. Learning activities

Course is taught in English in form of lectures which provide foundation in knowledge-related learning. objectives, exercises and laboratory work carried out in smaller groups, which gives students the opportunity to train general abilities and skills and approaches (according to learning aim description).

6. Assessment and grading

Modes of examinations of the course

Code	Module	Credits	Grade
1405	Written examination	4 credits	AF
1415	Laboration 1	1.5 credits	AF
1425	Laboration 2	2 credits	AF

The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Fail, supplementation required, F Fail.

The final grade is based on a weighting of the course modules grade where the extent (in credit points) affect how weight is given to a component.

The information before a course occasion states the assessment criteria and make explicit in which modes of examination that the learning outcomes are assessed.

An examiner can, after consulting the Disability Advisor at BTH, decide on a customized examination form for a student with a long-term disability to be provided with an examination equivalent to one given to a student who is not disabled.

7. **Course evaluation**
The course evaluation should be carried out in line with BTH:s course evaluation template and process.

8. **Restrictions regarding degree**
The course can form part of a degree but not together with another course the content of which completely or partly corresponds with the contents of this course.

9. **Course literature and other materials of instruction**
Artificial Intelligence – A modern approach, 4th ed
Författare: Stuart Russell & Peter Norvig
Förlag: Prentice Hall
Utgiven: 2020, Antal sidor: 1136
ISBN-10: 0-13-461099-7