Blekinge Institute of Technology
School of Computing

COURSE SYLLABUS

Tillämpad artificiell intelligens

Applied Artificial Intelligence

7,5 ECTS credit points (7,5 högskolepoäng)

Course code: DV1318
Educational level: Basic level
Course level: G1F
Field of education: Technology
Subject group: Computer Technology

Subject area: Computer Science
Version: 6
Applies from: 2008-09-01
Approved: 2009-11-01
Replaces course syllabus approved: 2007-08-24

1 Course title and credit points
The course is titled Applied Artificial Intelligence/Tillämpad artificiell intelligens and awards 7,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval
This course is established by School of Computing 2008-04-15. The course syllabus was revised by School of Computing and applies from 2008-09-01.

3 Objectives
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.

4 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

5 Aims and learning outcomes
On completion of course the student will:
• independently be able to demonstrate knowledge of the most basic methods within game AI field and able to reason around its historical development in relation to applications.
• independently and in collaboration with others identify, formulate and divide (AI-related) problem areas and propose solutions with suitable AI-based methods.
• independently and in collaboration with others develop methods and models to implement and test different solutions to a given (AI-related) problems.
• independently and in collaboration with others evaluate and prioritize different solutions from an overall perspective.

6 Generic skills
The following general skills are trained in the course:
• General knowledge within main field of study
• Verbal and written communication

7 Learning and teaching
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). The teaching language is English.

8 Assessment and grading
Examination of the course

Code	Module	Credit	Grade
0810	Written examination	2.5 ECTS	F-A
0820	Laboration 1	1.5 ECTS	F-A
0830	Laboration 2	1.5 ECTS	F-A
0840	Laboration 3	2 ECTS	F-A

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

9 Course evaluation
The course coordinator is responsible for

systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

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

11 Field of education and subject area
The course is part of the field of education Technology and is included in the subject area Computer Science.

12 Restrictions regarding degree
The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course, for example:
Game Artificial Intelligence 7,5 ECTS credits
Overlap with regard to Game Artificial Intelligence is equivalent to 3 credit points.

13 Course literature and other teaching material
Artificial Intelligence – A modern approach, 2nd ed
Author: Stuart Russell & Peter Norvig
Publisher: Prentice Hall
Published: 2003, Number of pages: 1081
ISBN: 0-13-080302-2
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