
INF5390 – Kunstig intelligens
Preparing for the Exam

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Outline

- INF5390 Learning objectives
- Course topics and syllabus
- Examination format
- Scoring principles
- Recommended preparation

Reminder: INF5390 "Hva lærer du?"

Emnet gir en innføring i sentrale AI metoder for konstruksjon av intelligent agenter. Det tar allikevel ikke sikte på å gi tilstrekkelig kompetanse til selv å utvikle AI-systemer. Etter å ha tatt emnet vil du kunne:

- Gi en overordnet fremstilling av hva AI er, fagets historikk og status pr. i dag.
- Forklare grunnlag for problemløsning ved søking og bruk av heuristiske metoder.
- Gjøre rede for bruk av logikk til resonnering og representasjon av kunnskap i AI.
- Beskrive spesialiserte modeller og algoritmer for planlegging av aksjoner.
- Forklare grunnlag for resonnering og beslutninger med usikker informasjon.
- Gi en oversikt over sentrale AI-metoder for automatisk læring av kunnskap.
- Gjøre rede for grunnlagsproblemer og filosofiske aspekter ved AI.

Recap: Topics covered in the course

INF5390-01	AI - Introduction and Overview
INF5390-02	Intelligent Agents
INF5390-03	Solving Problems by Searching
INF5390-04	Logical Agents
INF5390-05	First-Order Logic
INF5390-06	Knowledge Engineering in FOL
INF5390-07	Knowledge Representation
INF5390-08	Classical Planning
INF5390-09	Planning and Acting
INF5390-10	Probabilistic Reasoning
INF5390-11	Making Simple Decisions
INF5390-12	Learning from Examples
INF5390-13	Reinforcement Learning
INF5390-14	Natural Language Communication
INF5390-15	Foundations and Prospects

Recap: Course syllabus (pensum)

- Textbook: Russell & Norvig: "AI - A Modern Approach" (AIMA), 3rd edition, Prentice Hall, 2010 and 2013
- Syllabus: Textbook only (incl. copies of Ch. 26, 27), as specified in "INF5390 Pensum 2014"
- Total number of pages: 402

- Lecture slides serve as a **guide** to the syllabus, but does **not** cover all of it
- => You must read the textbook material!

Specifics of the exam

- Date and time: 04.06.2014, 14:30-18:30 (4 hrs.)
- Place: See INF5390 web page one week before
- Text provided in both Norwegian and English
- Written response, either language (or mix)
- No textbook or other support material allowed
- Lecturer will visit shortly during first 1/2 hour to answer clarification questions

Exam questions - What to expect

- A test of the candidate's knowledge and understanding of the syllabus material:
 - ✓ Not a coding or problem solving exam!
 - ✓ But .. may be asked to provide pseudo code and/or some technical formulae
- Typically 3-4 separate main topics (headings), each carrying 25-40% weight in scoring
 - ✓ Each main point will have 2-3 subpoints
 - ✓ Answer each subpoint with a concise text
 - ✓ Try to answer all points!

Grading/scoring principles

- Independent evaluator (sensor)
- Assigns numerical score to each subpoint that has been answered
- Summarizes to overall score using the weights supplied in the text
- Empty subpoints => less than 100% complete
- Overall score may be systematically balanced to approach normal grade distribution
- Grade can be challenged post-exam and will be explained and possibly changed if justified

Recommended preparation

- Per lecture (listed on slide 4 above):
 - ✓ Review lecture slide set (course web site)
 - ✓ Read&digest corresponding AIMA text (syllabus)
- Review previous years' exams (2011 – 2013)
 - ✓ Uploaded to Øvinger for each year
 - ✓ Try to answer some of the questions
- Don't expect to succeed without having read the syllabus material!
- Contact lecturer by e-mail (raf@computas.no) if any specific problems during preparations!

Lykke til!
Good luck!