

Course Staff

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Office Hours:	Monday and Thursday 13 – 15	Tuesday 15 – 17 and Friday 10–12

Course Topics

1. Introduction (**ch. 1**)
2. Agent Orientation (**ch. 2**)
3. Problem Solving
 - 3.1 Blind Search (**sec. 3.1 - 3.5**)
 - 3.2 Informed Search (**sec. 4.1(pg. 94-101), 4.2, 4.3**)
 - 3.3 Game Playing (**sec. 6.1 - 6.4**)
4. Reason and Action Through Logic
 - 4.1 Propositional and First Order Logic (**sec. 7.1, 7.3 - 7.5**, sec. 8.1 - 8.3, 9.1, 9.2, 9.5(pg. 295-300))
 - 4.2 Classical Knowledge Representation (sec. 10.1-10.4, sec. 10.7(pg. 354-356))
 - 4.3 Planning (11.1,11.2)
5. Probabilistic Reasoning
 - 5.1 Uncertainty (**sec. 13.1-13.6**)
 - 5.2 Bayesian Networks (**sec. 14.1 - 14.2, 14.4**)
6. Machine Learning
 - 6.1 Learning from Observations (**sec. 18.1-18.3**)
 - 6.2 Neural Networks (**sec. 20.5**)
 - 6.3 Kernel Machines (sec. 20.6)
7. Speech Recognition (**sec. 15.6**)
8. Philosophical Foundations and Future Prospects (**ch. 26 and ch. 27**)

Course Schedule

Week	Date	Time	Room	Topic (approx)	Note
36	Tue 1-Sep	13.15 - 15	MA378	1	
36	Fri 4-Sep	13.15 - 15	N220	2	
37	Tue 8-Sep	13.15 - 15	A302Tekn	3.1	
37	Fri 11-Sep	13.15 - 15	MC313	3.2	
38	Tue 15-Sep	13.15 - 15	A205Tekn	3.3	
39	Tue 22-Sep	13.15 - 15	A205Tekn	4.1	
39	Fri 25-Sep	13.15 - 17	MC313	4.2,4.3	#1 due
40	Tue 29-Sep	13.15 - 15	MA136	5.1	
40	Fri 2-Oct	13.15 - 15	MA146	5.2	
41	Tue 6-Oct	13.15 - 15	MA136	5.2	
41	Fri 9-Oct	13.15 - 15	MC313	6.1	
42	Tue 13-Oct	13.15 - 15	MA146	6.2	#2 due
42	Fri 16-Oct	13.15 - 15	MC313	6.3	
43	Tue 20-Oct	13.15 - 15	MA176	7	
44	Tue 27-Oct	13.15 - 15	MA112	8 + Rev	
44	03-Nov	9 - 13	Skrivsal 2	Exam 1	#3 due
1	7-Jan	9 - 13	Skrivsal 2	Exam 2	
14		9 - 13		Exam 3	

Course Readings

Textbook

Stuart Russell and Peter Norvig *Artificial Intelligence: A Modern Approach* Prentice Hall, 2003.
ISBN 0131038052

Course Language

All lectures will be given in English and the exam must be written in English. While exercise reports may be written in either English or Swedish, the final exam must be written in English. For the final examination, it will be permitted to use an XX-English / English-XX dictionary, where XX is the language of the student's choice.

Grading System

There are three grades that you receive for this class: 1.) a *theory* grade (4.5 hp); 2.) a *practical* grade (3 hp); 3.) an *overall* grade. The theory grade is based on how many of 1000 points you are able to amass on the final exam¹:

$p \geq 800$	5
$800 > p \geq 650$	4
$650 > p \geq 500$	3
$p < 500$	U

The practical grade for this course is pass (G)/fail (U) and is based on three obligatory assignments. Students may work in groups of up to two persons on these assignments. Full descriptions of these assignments will be handed out as the course proceeds. Groups shall receive a 'G' (satisfactory), 'K' ("come in") or an 'O' (not satisfactory) on obligatory assignments. A 'K' means that you must speak to the assistant about the assignment and convince them that you now understand some relevant aspect of the assignment. An 'O' means that you must improve the quality of your work and try again. To pass the practical portion of this course you must have achieved a 'G' on all three assignments². The overall course grade will simply be your theory grade once you pass the practical section of the class.

¹the final exam will be graded blindly; your identity will be unknown to the exam grader. You will have essentially three chances to pass the final exam. You may only re-take an exam if you have a failing theory grade (U).

²If you have not passed the practical portion of this course by November 22st, 2009, then you may have to wait until April 1st, 2010 to obtain feedback on any handed in material. If you have not passed all assignments by June 1st, 2010 then you will have to repeat the practical portion of this course.