

Course Title: Artificial Intelligence I
Course Code: AI 320
Course Page: <http://bu.edu.eg/staff/ahmedfares-courses/>
Instructor: Dr. Fares (<http://www.bu.edu.eg/staff/ahmedfares>)
Main Textbook: Stuart Russell and Peter Norvig. Artificial Intelligence: A Modern Approach. 3rd Edition, Pearson Education, Inc., 2009, ISBN 978-0136042594.
Other Resources: <http://aima.cs.berkeley.edu>

Course Contents:

1. Introduction	HMMs
2. Uninformed Search	16. Bayes'_Nets: Representation
3. Informed Search	17. Bayes'_Nets: Independence
4. Constraint Satisfaction Problems_I	18. Bayes'_Nets: Inference
5. Constraint Satisfaction Problems_II	19. Bayes Net: Sampling
6. Adversarial Search	20. Decision Diagrams and Value of Perfect Information
7. Expectimax and Utilities	21. Machine_Learning: Naive Bayes
8. Markov Decision Processes_I	22. Machine_Learning: Perceptrons
9. Markov Decision Processes_II	23. Machine_Learning: Kernels and Clustering
10. Reinforcement Learning_I	24. Advanced_Applications:_NLP, Games, and Robotic Cars
11. Reinforcement Learning_II	25. Advanced_Applications: Computer Vision and Robotics
12. Probability	
13. Markov Models	
14. Hidden Markov Models	
15. Particle Filters and Applications of	

Recommended Background:

- Understanding of:
 - Probability (such as the likelihood of an event)
 - Computer system organization (such as binary representations and arithmetic).
- You should be comfortable with simple calculations and manipulations using scientific notation.
- CSC 105

Attendance Policy:

- Attendance is expected.
- Whether you attend or not, you are responsible for keeping track of whatever happens during the lectures and the tutorials.
- Side talking, cellphones, laptops, food/drinks, and walking¹ are not allowed.



Grading System:

Model 1	Attendance	Participation	Midterm 40		Final. 50	
			Midterm Exam	Quiz	Final (Assignment OR Quiz OR Project OR lab exam)	Final Exam
	5	5	30% written exam	10% Quiz	10%	40% written exam

Model 2	Attendance	Participation	Midterm 40		Final. 50	
			Midterm Exam	Quiz	Final (Assignment OR Quiz OR Project OR lab exam)	Final Exam
	5	5	30% written exam	10% Quiz	15%	35% written exam

Model 2

¹ If you are late for the lecture, then you are allowed to walk into the lecture hall but quietly (5 min only).