# Artificial Intelligence Theories
## CES 510

**Benha University**

**Computer Systems Engineering**
**Electrical Engineering Department**

**Faculty of Engineering**
**(at Shoubra)**

**Course Title:** Artificial Intelligence Theories

**Course Code:** CES 510

**Course Page:** http://bu.edu.eg/staff/islam.elshaarawy-courses

**Instructor:** Dr. Islam ElShaarawy (http://www.bu.edu.eg/staff/islam.elshaarawy)

**Main Textbook:** Stuart Russell and Peter Norvig. *Artificial Intelligence: A Modern Approach*. 3rd Edition, Pearson Education, Inc., 2009, ISBN 978-0136042594.

**Online Resources:** http://aima.cs.berkeley.edu/

**Course Contents:**

1. Introduction to AI
2. Intelligent Agents
3. Solving Problems by Searching
4. Constraint Satisfaction Problems
5. Logical Agents
6. First-Order Logic
7. Classical Planning
8. Planning and Acting in the Real World
9. Knowledge Representation
10. Quantifying Uncertainty
11. Probabilistic Reasoning
12. Making Decisions
13. Learning from Examples
14. Learning Probabilistic Models
15. Reinforcement Learning

**Course Policy:**

1. Attendance is compulsory.
2. **Reading the relevant chapter(s) ahead of lectures is essential.**
3. Keeping track of whatever happens during the lectures is the student responsibility regardless of attendance.
4. Side talking, cellphones, laptops, food/drinks, and walking[1] are not allowed.

5. **Leaked solution manual as well as any other resources (unless otherwise specified) should never be used for solving the assignments.**

**Grading System:**

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|---|---|
| **Attendance[2]:** | 000 |
| **Assignments:** | 010 |
| **Quizzes:** | 010 |
| **Midterm Exam:** | 010 |
| **Project:** | 010 |
| **Final Exam:** | 060 |
| **Total** | 100 |

1 If you are late for the lecture, then you are allowed to walk into the lecture hall but quietly.
2 Attendance will be taken anyway.