METU Department of Computer Engineering Fall 2019

CENG 462 - Artificial Intelligence

Instructor: Faruk Polat

1. **Catalog Data:** Artificial Intelligence (3-0) 3
   See the Catalog for more descriptive information.

   Prerequisites: Consent of the instructor

2. **Textbook(s):**

   S.Russell, P.Norvig, *Artificial Intelligence: A Modern Approach*, Prentice Hall

3. **Goals:** To introduce the theory of AI and to make practice of it.

4. **Course Outline:**
   Topics

   (a) Introduction to AI, Autonomous Intelligent Agents
   (b) Uninformed Search: DFS, Backtracking, BFS, DFID, AND/OR Graphs
   (c) Heuristic Search: Hill Climbing, Beam, Best-First, A^*, Admissibility
   (d) Game Playing
   (e) Constraint Satisfaction Problems
   (f) Planning
   (g) Knowledge Representation: Predicate Logic
   (h) Theorem Proving: unification, resolution, strategies
   (i) Uncertainty
   (j) Decision Making
   (k) Learning

5. **Evaluation**

   (a) Homework (including programming assignments) %30,
   (b) Midterm Exam %30, *November 12, 2019*
   (c) Final %40.

6. **Programming**: Students are required to use Python and compile their solutions on *inek* machines before submission.

7. **Communication**: All announcements including homework assignments will be made on ODTU-CLASS (https://odtuclass.metu.edu.tr/)

8. **Policy**:

   - Late homeworks will not be accepted.

- The homework assignments are designated as individual assignments and must be completed individually. Copying from other students or off the internet is strictly forbidden and will surely constitute grounds for failure.
- In case of cheating in one of the take-home exams, all of the take-home exams will be graded as 0 and furthermore the case will be passed to the Student Discipline Committee.