Boston University Metropolitan College

Artificial Intelligence

MET CS 664
Hanscom AFB Campus
Wednesdays 6:00 PM – 8:45 PM
Spring 2018

Instructor: Dr. Mehrdad (Mike) Nourai
Email: mnourai@bu.edu
Office hours: after class

Course Description
Study of the ideas and techniques that enable computers to behave intelligently. Search, constraint propagations, and reasoning. Knowledge representation, natural language, learning, question answering, inference, visual perception, and/or problem solving. Laboratory course. 4 credits.

Prerequisites:
MET CS 248 and MET CS 341 or MET CS 342; or instructor's consent.

Text Book
Artificial Intelligence: A Modern Approach 3rd Edition, Stuart Russell and Peter Norvig - Pearson

Courseware
Blackboard website: https://learn.bu.edu/

Class Policies

1) **Attendance & Absences** – Class attendance is required at all class meetings. Certain course material will only appear during lectures, and most announcements will only be made in class. You are responsible for ALL the materials covered and discussed in class, whether you are present or not. The likelihood of failing the course is subsequently increased by coming to class late, leaving early, or being absent.
2) **Assignment Completion & Late Work** – No late coursework will be accepted. Any late or missed assignments would be recorded as zero. Exceptions may be made in the case of an illness or an emergency condition but only when a verifiable documentation is submitted within a reasonable timeframe. All assignments must be submitted electronically via the class Blackboard website on or before the published due date. No paper, e-mail, or any other submission types would be accepted. It is students' responsibility to make sure all assignments submissions are successful and make backups of coursework submitted.
3) **Quizzes and Exams** – No makeup quizzes or exams will be given. Any missed quizzes or exams would be recorded as zero. Exceptions may be made in the case of an illness or an emergency condition but only when a verifiable documentation is submitted within a reasonable timeframe. No electronic or computer devices such as smartwatch,

smartphone, tablet, laptop, or netbook (calculator is OK) can be used during quizzes and exams. Violations results in zero credit for the exam.

4) **Classroom Expectations** – Please do: respect your classmates by silencing your cell phone or other electronic devices before class begins, and do not use them during class; participate, ask questions, and interact with your professor.
5) **Academic Conduct Code** – An important message from the Dean's Office: "Cheating and plagiarism will not be tolerated in any Metropolitan College course. They will result in no credit for the assignment or examination and may lead to disciplinary actions. Please take the time to review the Student Academic Conduct Code: http://www.bu.edu/met/metropolitan_college_people/student/resources/conduct/code.html. This should not be understood as a discouragement for discussing the material or your particular approach to a problem with other students in the class. On the contrary – you should share your thoughts, questions and solutions. Naturally, if you choose to work in a group, you will be expected to come up with more than one and highly original solutions rather than the same mistakes."

Course Requirements

- Class participation
- Reading and studying
- Assignments (Homework and Project)
- Quizzes and Exam

Additional Course Policy

- If there is not enough time during class to cover the chapter and other materials, it is expected that students read the entire chapter and required materials.
- Additional reading materials may be assigned for each topic. Students are responsible for all the materials covered including any topics not in the textbooks.
- It is student's responsibility to participate in class, submit all the coursework successfully on the Blackboard by their due dates, and take exams on their scheduled dates.
- Only ONE submission per assignment would be accepted.
- An incomplete grade is rarely considered, and must meet the requirements of 80/2/80 rule. That is, at least 80% of the course must have already been completed and incomplete requested by 2 weeks before the Final Exam with compelling documentations and circumstances. Any incomplete coursework can only earn 80% each.

Grading Criteria

The grade breakdown is shown below. All percentages are approximate, and the instructor reserves the right to make necessary changes.

- 3% on Class participation
- 7% on Homework
- 30% on Term-project
- 30% on Exam 1
- 30% on Exam 2

Letter grade/numerical grade conversion is shown below:

A (95-100)	A- (90-94)	
B+ (85-89)	B (80-84)	B- (75-79)
C+ (70-74)	C (65-69)	C- (60-64)
D (50-59)		
F (< 50)		

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Class Meetings, Lectures & Assignments:

Note: This is a tentative schedule and a live document. Lectures, Readings, and Assignments subject to change, and will be announced in class or on Blackboard.

Date	Topic	Readings Due	Assignments Due
January 24	Introduction	Chapter 1	
January 31	Intelligent Agents Solving Problems by Searching	Chapters 2,3	
February 7	Beyond Classical Search Adversarial Search	Chapters 4,5	
February 14	Constraint Satisfaction Problems	Chapter 6	
February 21	Logical Agents	Chapter 7	
February 28	Exam 1		**Exam 1 (Chapters 1-7)**
March 7	**Spring recess**		
March 14	First-Order Logic	Chapter 8	
March 21	Inference in First-Order Logic	Chapter 9	
March 28	Classical Planning	Chapter 10	
April 4	Quantifying Uncertainty	Chapter 13	
April 11	Learning from Examples	Chapter 18	
April 18	Exam 2		**Exam 2 (Chapters 8-10,13,18)**
April 25	Project Presentations		Term-project due
May 2	Project Presentations		