

Oklahoma State University  
Department of Computer Science  
**CS 5723 – Artificial Intelligence I**  
Session: Fall/2020

**Classes:**

CLB 106B, Stillwater - **CRN 71461 (Graduate)**  
4:30-5:45 p.m., Tuesday & Thursday

**Instructor:**

**Dr. Moawia Eldow**  
Stillwater Office: MSCS 224  
Tel – 405.744.2607  
[meldow@okstate.edu](mailto:meldow@okstate.edu)

**Office Hours:**

Monday, 3:00-4:00 p.m., in Stillwater.  
Wednesday, 3:00-4:00 p.m., in Stillwater.  
- Other times available by appointment.

**Lectures:**

will be conducted synchronously using Skype for business. Students can join remotely from anywhere or from the assigned room (**CLB 106B can take up to 6 students only**). The lectures may be recorded and made available for review, and especially for remote students on Canvas.

**Description:**

Broad coverage of core artificial intelligence (AI) topics, including search-oriented problem solving, knowledge representation, logical inference, AI languages, history and philosophy of AI.

**Prerequisites:** [CS 2133](#) and [CS 3653](#), each with a grade of "C" or better.

**Primary Text (required):**

**Artificial Intelligence: Foundations of Computational Agents**, 2nd Edition,  
David L. Poole and Alan K. Mackworth,  
Cambridge University Press, 2017. ISBN-13:9781107195394.  
Available online at: <https://artint.info/2e/html/ArtInt2e.html>

**Grading:**

Class Participation	5%
Homework Assignments	20%
Programming Assignments	20%
Project	15%
Midterm Exam	20%
Final Exam	20%

**Grading Scale:**

for score x in 90 _ x	<b>A</b>
80 _ x < 90	<b>B</b>
70 _ x < 80	<b>C</b>
60 _ x < 70	<b>D</b>
x < 60	<b>F</b>

**Homework Assignments:**

Written homework assignments/exercises ***will be due at 4:30 p.m. on Thursdays (the start of class)***. Assignments may be turned in using the dropbox on canvas. Please use a high resolution black and white scan for hand written exercises.

### **Programming Assignments:**

The program may be written in any language as long as the TA and the professor are able to build and execute from source code. Examples for class will be in C++ or Python. If in doubt, contact the instructor to verify that the programming environment is acceptable. Assignments may require using modifying the textbook's python code from AI Python. Programs may be turned in using the dropbox on canvas. ***Programming assignments will be due at 11:59 p.m. on Fridays.***

### **Late Submission Policy:**

Assignments may be turned in late, but not more than two weeks. All the late submissions may lose a percentage of their graded point values according to the following schedule:

On time :	<b>0%</b>
1-3 days :	<b>10%</b>
4-7 days :	<b>20%</b>
8-14 days :	<b>40%</b>
> 14 days :	<b>100%</b>

### **Project:**

Graduate students will have individual projects, but may collaborate on infrastructural components (i.e., simulation frameworks, data preprocessing, etc.). Components of the project may include a proposal, milestone first report, and final project code and report. Projects may be turned in using the dropbox on canvas or by hand on or before the due date.

### **Exams:**

There will be one midterm exam during the semester at the normal lecture time, which will cover the first half of the class topics. There will also be a final exam during finals week, which will cover the second half of the class topics. ***Both exams will be online proctored exams (approx. \$15-20) and will be using Examity through Canvas only.***

### **Collaboration:**

for homework and programming assignments, discussion of concepts, ideas, and techniques is allowed. After discussion, each student must write up his/her own solution. Copying another person's work, in part or whole, is not allowed. Giving another student your work, in part or whole, is considered cheating as well. If you are unsure whether your collaboration is acceptable, speak with the instructor in advance. Any violation of academic integrity would result in a non-droppable grade of zero for that assignment and an additional reduction of one letter grade in the course and a report to the university administration. Major violations will result in a grade of F!

### **Disabilities act:**

If any student feels that he/she has a disability and needs special accommodations of any nature whatsoever, the instructor will work with you and the Office of Disabled Student Services, 326 Student Union, to provide reasonable accommodations to ensure that you have a fair opportunity to perform in this class. Please advise the instructor of such disability and the desired accommodations at some point before, during, or immediately after the first scheduled class period.

### **Other Policies due to COVID19:**

Students should refer to any new polices from university, college and department regrading the COVID19.

**Course Outline (*Tentative Schedule*):**

<b><u>Week</u></b>	<b><u>Reading chapters and Topics</u></b>	<b><u>Homework (H), Program (P) (Due date)</u></b>
Aug 17-21	Overview of Class Ch1 – Artificial Intelligence & Agents	
Aug 24-28	Ch1 – Artificial Intelligence & Agents (cont.)	<b>H1 (09/03/2020 at 3:00 PM)</b>
Aug 31-Sep 4	Ch3 – Searching of Solutions	
Sep 7-11	Ch3 – Searching of Solutions (cont.)	<b>H2 (09/17/2020 at 3:00 PM), P1 (09/18/2020 at 11:59 PM)</b>
Sep 14-18	Ch3 – Searching of Solutions (cont.)	
Sep 21-25	Ch4 – Reasoning with Constraints	<b>H3 (10/01/2020 at 3:00 PM), P2 (10/02/2020 at 11:59 PM)</b>
Sep28 -Oct 2	Ch4 – Reasoning with Constraints (cont.)	
<b><u>Oct 5-9</u></b>	<b>Mid-Term Exam (<i>Tuesday 10/06/20</i>)</b> Ch5 – Propositions and Inference	
Oct 12-16	Ch5 – Propositions and Inference (cont.)	<b>H4 (10/22/2020 at 3:00 PM), P3 (10/23/2020 at 11:59 PM)</b>
Oct 19-23	Ch5 – Propositions and Inference (cont.)	
Oct 26-30	Ch7 – Supervised Learning	
Nov 2-6	Ch7 – Supervised Learning (cont.)	<b>H5 (11/12/2020 at 3:00 PM), P4 (11/13/2020 at 11:59 PM)</b>
Nov 9-13	Ch8 – Reasoning with Uncertainty	
Nov 16-20	Ch8 – Reasoning with Uncertainty (cont.)	<b>H6 (12/03/2020 at 3:00 PM)</b>
<b><u>Nov 23-27</u></b>	<b>Fall Break and University Holiday (<i>No classes</i>)</b>	
Nov 30-Dec 4	Ch16 – Retrospect and Prospect	
<b><u>Dec 7-11</u></b>	<b>Final Exam (<i>TBA</i>)</b>	