

COURSE SYLLABUS

Semester: Spring 2014

Course Prefix/Number: CAP5600

Course Title: Introduction to Artificial Intelligence

Course Credit Hours: 3.0

Course Meeting Time/Place: Ref. 2205: Online

The course will be taught online using the UWF course management system and video conferencing tool. Online students can login to the course web site for course assignments, materials and resources.

Instructor and Contact Information:

Dr. Eman El-Sheikh

Office: Building 11, Room 221

E-mail: eelsheikh@uwf.edu (preferred)

Tel: 850-474-3074

Office Hours: By appointment

Course Web Site: <http://elearning.uwf.edu/>

Prerequisites or Co-requisites: No formal prerequisites, although a good programming background is highly recommended.

Course Description:

Introduction to basic Artificial Intelligence concepts and methods for solving complex problems using computers: goal-oriented procedures, search problems, knowledge representation. Overview of AI topics such as knowledge-based systems, intelligent agents, and machine learning as well as some applications of AI.

Student Learning Outcomes:

Upon completion of the course, students will be able to:

1. describe and analyze basic AI algorithmic methods including goal-oriented procedures and search techniques;
2. apply fundamental AI programming techniques to solve complex problems, including agent-based and knowledge-based methods;
3. describe the main theories of intelligence and their impact on AI trends and fields;
4. recognize various applications of AI; and
5. develop new applications that incorporate AI concepts and techniques.

Topics Covered:

Topics include intelligent systems, fundamental issues and theories of intelligence, search problems, knowledge representation, reasoning and problem solving, knowledge-based systems, intelligent agents, machine learning, applications of Artificial Intelligence.

Required Textbook(s):

Artificial Intelligence: A Modern Approach (3rd Edition), by Stuart Russell and Peter Norvig. ISBN-10: 0-13-604259-7. ISBN-13: 978-0-13-604259-4. Prentice Hall, Copyright 2010.

Additional Textbook(s): Research papers will also be assigned as supplemental reading.

References:

Textbook web site: <http://aima.cs.berkeley.edu/>

AI resources on the web: <http://aima.cs.berkeley.edu/ai.html>

AI topics from AAAI: <http://aitopics.org/>

Grading:

Programming project	60%
Research presentation	15%
Final exam	25%

Technology Requirements:

Programming projects may require use of different programming languages, some of which are available in the AI and Multiplatform Labs (SSE, bldg. 4, Pensacola campus), and some can be downloaded for use on your personal computer. You will be given instructions on the programming environment with the programming assignment.

Expectations for Academic Conduct/Plagiarism Policy:

As members of the University of West Florida, we commit ourselves to honesty. As we strive for excellence in performance, integrity—personal and institutional—is our most precious asset. Honesty in our academic work is vital, and we will not knowingly act in ways which erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others. We pledge to share community resources in ways that are responsible and that comply with established policies of fairness. Cooperation and competition are means to high achievement and are encouraged. Indeed, cooperation is expected unless our directive is to individual performance. We will compete constructively and professionally for the purpose of stimulating high performance standards. Finally, we accept adherence to this set of expectations for academic conduct as a condition of membership in the UWF academic community.

The Student Code of Conduct sets forth the rules, regulations and expected behavior of students enrolled at the University of West Florida. Violations of any rules, regulations, or behavioral expectations may result in a charge of violating the Student Code of Conduct. It is the student's responsibility to read the Student Code of Conduct and conduct themselves accordingly. Any occurrence of academic misconduct, including all forms of cheating and plagiarism, will be punished by a range of punishments from a

grade of zero on the assignment to expulsion from the university. For more information, see the UWF [Office of Student Rights and Responsibilities](#), which includes links to the Student Code of Conduct and the Academic Misconduct Policy.

Assistance:

The Student Disability Resource Center SDRC at the University of West Florida supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, such as time limited exams, inaccessible web content, or the use of non-captioned videos and podcasts, please notify the instructor or the SDRC as soon as possible. You may contact the SDRC office by e-mail at sdrc@uwf.edu or by phone at (850) 474-2387. Appropriate academic accommodations will be determined based on the documented needs of the individual.

Weather or Other Emergency Information:

In the case of severe weather or other emergency, the campus might be closed and classes cancelled. Official closures and delays are announced on the UWF website and broadcast on WUWF-FM.

- WUWF-FM (88.1MHz) is the official information source for the university. Any pertinent information regarding closings, cancellations, and the re-opening of campus will be broadcast.
- In the event that hurricane preparation procedures are initiated, the UWF Home Web Page and Argus will both provide current information regarding hurricane preparation procedures, the status of classes and the closing of the university.

Emergency plans for the University of West Florida related to inclement weather are available on the following UWF web pages:

- Information about hurricane preparedness plans is available on the UWF web site: <http://uwfemergency.org/hurricaneprep.cfm>
- Information about other emergency procedures is available on the UWF web site: <http://uwfemergency.org/>

Other Course Policies:

Attendance: Attendance is not required, but is strongly encouraged. Students are responsible for all announcements and all material covered in class. If you miss a class, please ask a classmate for notes to determine what you missed.

Communication: You are responsible for checking your e-mail and the course website regularly, preferably once a day, to keep up with important announcements, assignments, etc.

Exams: Makeup exams will NOT be given except with a serious, documented medical or legal excuse. No makeups will be given unless students make advance arrangements. The final exam is comprehensive.

Re-grading Assignments: It is the student's responsibility to check graded assignments when they are returned to you. I will gladly re-grade an assignment when a question or mistake is brought to my attention. To ensure fairness, I reserve the right to re-grade the entire assignment. As a result, your grade may increase, decrease, or remain the same. Grades will not be changed after two weeks from the date graded assignments are returned to the class.

Grades: The last day of the term for withdrawal from an individual course with an automatic grade of "W" is **March 21**. Withdrawals done after that date will result in a grade of "WF" or withdrawal – failing. Applying for an incomplete or "I" grade will be considered only if: (1) there are extenuating circumstances to warrant it, AND (2) you have a passing grade and have completed at least 70% of the course work, AND (3) approval of the department chair. Final grades will be calculated according to the following grading scale:

Grade	Grade Point	Percentage
A	4.0	>= 93%
A-	3.7	>= 90%
B+	3.3	>= 87%
B	3.0	>= 83%
B-	2.7	>= 80%
C+	2.3	>= 77%
C	2.0	>= 73%
C-	1.7	>= 70%
D+	1.3	>= 67%
D	1.0	>= 60%
F	0.0	< 60%

Participation and Feedback: I encourage active participation and regular feedback. I believe that effective communication between the instructor and students will make the course more useful, interesting, and productive. **Please contact me if you have any questions, concerns, or suggestions! ☺**

Important Note: Any changes to the syllabus or schedule made during the semester take precedence over this version. Check the course website regularly for up-to-date information.