

Course at a Glance

Artificial Intelligence

Contact Information

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Course Information

This course will cover techniques for designing intelligent behaviors and creating lifelike behaviors in characters to be used in modern games in order to provide interactive software agents that are engaging to players and users. Students will learn about representation of knowledge, algorithms for problem solving, and techniques for game playing, decision-making, and intelligence modeling. Motion behaviors are also covered in this course. This course is demanding and students should expect to spend considerable time learning and applying the material.

Textbook

The textbook for this class is “Artificial Intelligence for Games” by Ian Millington. In addition, each lab project will come with a manual including some coverage of the subject matter.

Grading

The grade breakdown is as follows:

Grade Category Breakdown		Topic	Quiz / Exam		Lab
Quizzes & Exams	42%	Fundamentals of AI	4%	(Quiz)	5%
Labs / Projects	42%	Basic Search	4%	(Quiz)	--
Discussion Posts (Six)	6%	Advanced Search	4%	(Quiz)	15%
Professionalism (GPS)	10%	Alternative Search	4%	(Quiz)	--
Extra Credit Project	up to 3%*	Steering Behaviors	4%	(Quiz)	2%
Total	103%	Game Playing	4%	(Quiz)	5%
		Basic Decisions	4%	(Quiz)	10%
		Advanced Decisions	4%	(Quiz)	5%
		Final Exam (Written)	10%	(Exam)	---
		Total	42%		42%

*An additional research project may be done for up to 3% extra credit. NOTE: Extra credit cannot change a failing grade into a passing one.

Students repeating the course due to failure **must to do the extra credit project** and **must submit a one-page review** of an article on an AI topic. This applies to failures for grades and/or attendance.

Expectations for the Class

Students are expected to remain on-task while in the classroom. The following are the course rules:

Only class-related computer activity is permitted. This means no game-playing, web-surfing, instant messaging, or other unrelated activities are allowed during class. The only computer activity during lecture should be the examination of class materials (manuals, demonstrations, and the like.) Please save other activity for breaks. For each violation, ***two hours*** of attendance will be docked.

Students must perform work individually. There are no teams in this course, and students may not share any code. Any sharing of code will be considered cheating regardless of the source.

Academic Dishonesty will be dealt with strictly. Cheating comes in many forms. Sharing / copying of code, “borrowing” of code ideas resulting in similar code structure, discussing code structure, looking at code from another student or providing such code, and plagiarism, in addition to other dishonest behaviors, are all considered academic dishonesty. From time to time lab instructors may offer help to students beyond a conceptual level. Lab instructors have been given explicit instructions about how and when such information may be shared, but students are NEVER permitted to provide such information. No information may be shared by students except at a conceptual level. Any student found to have violated these rules, whether a provider or receiver or unauthorized help, will be given a zero and referred to the Student Affairs office and GPS coordinator. **When in doubt, ask an instructor.**

Grade reviews must be requested within one week of a grade being posted. After two weeks, no grade will be revisited. In the event of a grade review, the entire assignment will be reviewed.

Absences will be observed in accordance with Full Sail policy. Students absent from eight hours of class or more will automatically receive a failing grade.

Short breaks will be given every hour, and a 45-minute break will be given for meals. We will have discussion of the topic in the lecture, meal, and a lab afterward. Regardless of when we break for lunch/dinner, you may take up to 45 minutes. If you wish to, you may return from your break at the regularly scheduled beginning of lab (1:15PM, 5:15PM, or 9PM, depending on the schedule.)

Helpful Hints

Here are some suggestions you might find useful in this class.

Come to class with a clear understanding of the previous day’s concepts. There is a quiz each day, and understanding the previous day’s concepts is crucial to performing well on the quiz.

Learn and understand rather than memorizing. Memorization may help in some courses but will not be helpful in this one. Understanding concepts presented will make them easier to recall anyway, and the quizzes, labs, and exams are designed to test and reinforce understanding over memorization.

Improve yourself by finding your weaknesses and actively improving upon them. It takes time and effort to understand some of the more complicated concepts here, but everyone can do it! During the Final Project, instructors won’t be available to answer questions or help you debug. Try to solve your own bugs to improve your bug-spotting skills.

Remind me to give you breaks!