Class Time and Place

Lecture:
Section 11786: Monday & Wednesday, 2:30P – 3:45P in room LH 030
Lab Sections:
Section 11787: Friday 2:30P – 3:45P in room LH 030

Instructor Information

Instructor: Eduardo J. Izquierdo
Office: Eigenmann 841
Office Hours: Tuesday & Thursday, 2:30-4:00PM, or by appointment.
Office Telephone: (812) 856-3371
Email Address: **edizquie@indiana.edu (mailto:edizquie@indiana.edu?subject=C105)**

Lab Instructor Information

Lab Instructor: Jaimie Murdock
Office: Eigenmann 802
Office Hours: By **appointment   (http://http//schedule.jamram.net)** .
Email Address: **jammurdo@indiana.edu (mailto:jammurdo@indiana.edu)**

Course Overview

This course is designed to refine your computer programming skills and acquaint you with applications of programming in cognitive science. You will learn to write computer programs that are useful to cognitive and information sciences. The goal of the course is to increase your skills and confidence in problem solving using programming.

Readings

Readings will be assigned on Canvas. It is important that you complete all of these readings before class so that you can understand the lecture and participate in our discussions. I will ask questions about these readings, and your reactions to them, using the online forums on Canvas and in class. Your answers to these questions (your participation in the forums and in-class discussions) will determine your "class participation" grade.

Labs

There will be assignments given weekly. The assignments will be further developments of the topics covered that week in the class. Assignments will be posted on Canvas. They will typically be due the following week. Lab assignments will be submitted via Canvas. For some labs, you will be asked to present your results to the group. Some lab assignments will have additional tasks that can be completed for extra credit.

Collaborations
You are welcome to collaborate on assignments with your peers. Each of you must turn in your own assignment. You should state in your report who you collaborated with and what each of your contributions were. If you have problems with the homework, seek help.

Assignments get 10% deducted automatically for each day that it is late.

Final Project

The final project accounts for 40% of your grade. There are five main components to the grade: project proposal (5 points), the oral

The final project accounts for 40% of your grade. There are five main components to the grade: project proposal (5 points), the oral presentation (10 points), assessment of other people's projects during their oral presentation (5 points); a written report (10 points) and Python code (10 points).

Oral presentations will occur on the last three days of class. Because time is limited, make sure you sign up for a time-slot to present. Remember you must attend all days of presentations, regardless of whether you are presenting. You will also be asked to grade each other's presentation.

Written report and code are due Friday, April 29th, noon. The report should be a short paper (around 1000 words or four pages, 1.5 spaced, 12 point font) reporting on the motivation for your project, the methods, a justification of the model and the programming, the results, and a discussion. The report should include figures and references. Together with the written report, you will also be asked to turn in the programming code, clean, elegant, well-structured, and well commented.

When presenting your work, in both oral and written form, as well as when assessing other people's work, you must cover five sections. First, explain the broad motivation for your final project. Second, discuss previous work that is similar in the literature. Third, explain the method that you will use: the important details of the simulation model. Fourth, describe what you will study and how you will study (what condition or parameter you will vary in your model and what numerical measurement you will observe). Fifth, discuss what the interpretation of those results mean within the context of the initial broader motivation.

Grading

Your final grade is computed using the following formulas: Participation:

Participation:	20%
Lab assignments (4 × 10% each):	40%
Final project:	40%
Total:	100%

Grading Scale

A+: 97.0%-100%   A: 93.0%-96.99% A-: 90.0%-92.99%

B+: 87.0%-89.99% B: 83.0%-86.99% B-: 80.0%-82.99%

C+: 77.0%-79.99% C: 73.0%-76.99% C-: 70.0%-72.99%

D+: 67.0%-69.99% D: 63.0%-66.99% D-: 60.0%-62.99%

F: Below 60%

Email

I expect you to be checking your IU e-mail account no less than once a day. I will send frequent messages to the class with announcements, clarifications, instructions, and/or updates. You are responsible for the content of these messages exactly as if the material had been presented in class. Saying "I didn't read that e-mail" or "I haven't checked my e-mail for a few days" will not be considered a valid excuse for missing information. All class-wide e-mail messages are archived by the Canvas Email Archive tool and will be available for reference throughout the course.

Respect

In order for this class to work well, there must be a certain level of respect between you and me and between you and your fellow classmates. Please be smart with your in-class behavior. If you have to arrive late, enter quietly and sit in the back. If you believe that you may leave early, please sit in the back and slip out quietly. Please turn off your cell phones and do not text-message your friends while I'm teaching – your friends will all still be sleeping anyway. If you are being disruptive to me or to the class, I will ask you to leave.

Feedback

Do not wait until the end of the semester course evaluations to let me know that I could be doing something better. Tell me as soon as possible so that I can make the class valuable and relevant as we go along. If you have any feedback, good or bad, about the course or how it's being taught, please feel free to send it to me anonymously using this **link   (http://psych.indiana.edu/feedback.php?to=edizquie)** .

Academic Honesty

This course is conducted under the University's Ethics Code. Specifically, it is considered cheating if you obtain any kind of information about answers and solutions to the assignments in this course – exams and homework – from any non-intended source or conversely transfer such information to others. It is also considered cheating if you lie to me about an absence relating to a lab assignment or an exam. The punishment for academic dishonesty is failure of the course.

Statement for Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact IU Disability Services for Students.

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Disclaimer

This syllabus is an outline of the course and its policies, which may be changed for reasonable purposes during the semester at the instructor's discretion. You will be notified in class and / or via email if any changes are made to this syllabus, and an updated syllabus will be provided on Canvas.

Course Syllabus

DOW	Date	Description	Assignment
M	Mar 07	Introduction	
W	Mar 09	Object-oriented programming	
F	Mar 11	Lab 1: Random Walker	
M	Mar 14	No Class -- Spring Break	
W	Mar 16	No Class -- Spring Break	
F	Mar 17	No Class -- Spring Break	
M	Mar 21	Data analysis and visualization 1	
W	Mar 23	Data analysis and visualization 2	Lab 1 Due
F	Mar 25	Lab 2: Spatial Orientation	
M	Mar 28	Agent-based models 1	
W	Mar 30	Agent-based models 2	
F	Apr 01	Lab 3: Agent-based models	
M	Apr 04	Grid-based multi-agent models	Lab 2 Due
W	Apr 06	Psychology experiments	
F	Apr 09	Lab 4: Psychology experiment	
M	Apr 11	Project proposals	
W	Apr 13	Topics in Cognitive Science	Lab 3 Due
F	Apr 15	Final Project Work Day	
M	Apr 18	Topics in Cognitive Science	
W	Apr 20	Topics in Cognitive Science	
F	Apr 22	Final Project Work Day	
M	Apr 25	Final Project Demonstrations	
W	Apr 27	Final Project Demonstrations	
F	Apr 29	Final Project Demonstrations	Final Project Due
F	May 06		