

2026 SI@UCF Python 2 – Object-Oriented Design in Python and Pygame Syllabus

Course Description: This course assumes basic knowledge of standard programming constructs (variables, if, for, lists), and teaches object-oriented design in Python in parallel with the package PyGame. The course then focuses on applying classes and objects in game design and corresponding game design principles. Game Design elements include: movement, collisions, keyboard input, mouse input, multiple screen design, level design for games, interacting objects and methods.

Grading: Homework – 30% (5% each)

Mini Game Jam – 10%

Quizzes – 20% (10% each)

Final Project – 40% (5% Proposal, 25% Code, 10% Presentation)

Day	Lecture	Recitation	Assignments
6/1	I/O, Variables, If statement	Loops	H1: Python Review
6/2	Functions, Lists	pyGame Intro – movement	H2: pyGame Draw & Move
6/3	Intro to Classes	pyGame keyboard input	H3: Balloon Pop
6/4	Token Class for pyGame	pyGame mouse input	H4: Target Practice
6/5	Standard Class Example	pyGame sound	pyGame Contest
6/8	Inheritance	Quiz Review	H5: Block Invaders!
6/9	File I/O	Quiz #1	H6: pyGame Inheritance
6/10	Fruit Game Object Version	Use of Built In Sprites	Mini Game Jam
6/11	Multiple File Games (F.G.)	Use of Built In Sprites	Mini Game Jam
6/12	Split Screen Games	Transformations	Mini Game Jam
6/15	Sushi Game	Game Example	Final Project
6/16	Minesweeper Game	Quiz Review	Final Project
6/17	Connect Four Game	Quiz #2	Final Project
6/18	Wordle Game	Game Example	Final Project
6/19	FIEA Trip	FIEA Trip	Closing Ceremony