2024 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 – 40% (6%, 6%, 6%, 6%, 8%, 8%)
Mini Game Jam – 20%
Final Project – 40% (20% code, 20% presentation)

Day	Recitation	Lecture	Assignments
6/3	I/O, Variables, If statement	Loops	H1: Python Review
6/4	pyGame Intro – drawing, movement	Functions, Lists	H2: List Practice, pyGame drawing
6/5	pyGame keyboard input	Intro to Classes	H3: Balloon Pop
6/6	pyGame mouse input	Token Class Example for pyGame	H4: Balloon Pop Plus
6/7	pyGame sound	Standard Class Example	pyGame Contest
6/10	Non-object pyGame Example	Inheritance	H5: Shooting Blocks
6/11	Object Example	Inheritance Example	H6: Shooting Blocks Plus
6/12	Object Example Cont	Multiple File Programs	Mini Game Jam
6/13	Use of Sprites	Fruit Game Object Version	Mini Game Jam
6/14	Use of Sprites	Dot Game Object Version	Mini Game Jam
6/17	Platformer – V1	Sushi Game – V1	Final Project
6/18	Platformer – V2	Sushi Game – V2	Final Project
6/19	Platformer – V3	Sushi Game – V3	Final Project
6/20	TA Choice	Final Project Presentation Info	Final Project
6/21	Final Project	Final Project	**Final Presentation Code Final Presentation Slides Due 6/21 12:30 pm**