

2022 SI@UCF Python and PyGame Course B Syllabus

Course Description: This course will teach the basics of Python and the package PyGame, including basic input and output, use of variables, if statements, math functions, loops, the Python Turtle, functions, strings, lists, dictionaries, game design principles, graphics and animations, images and sounds, sprites and collisions. Mathematical background upto and including Algebra II, as well as knowledge of angles measured in radians is necessary.

Course Web Page: <http://www.cs.ucf.edu/~dmarino/ucf/bhcsi/2022/introB/>

Grading: There are 8 daily homework assignments (individual), each worth 4%. There are 2 tests, each worth 20%. The final project proposal and project (in pairs) itself is worth the remainder of the course grade, 28%. This grade will be based on daily check points, final product and code quality.

Day	Lecture	Recitation	Assignments
6/6	Input Variables, Expressions	Hello World, Output Intro to Turtle	Buying Gas Changy Money Trains Turtle Day 1 (due 6/6 5 pm)
6/7	More Expressions, Random numbers, If statement	Overloading of +, Turtle Examples with variables	Pictures Road Trip Spending Spree Turtle Day 2 (due 6/7 5 pm)
6/8	For Loop Examples	For loop Introduction	For Loop Progs Arithmetic Game Turtle Day 3 (due 6/8 5 pm)
6/9	while loop	Turtle Loop Examples	Integers Stolen Frisbee Car Payments Turtle Day 4 (due 6/13 5 pm)
6/10	Nested Loops	Loop Control	Turtle Contest (due 12 pm)
6/13	Drawing in pyGame	Test #1	XYZ Stars Paint 1 (due 6/13 5 pm)
6/14	Functions	Movement in pyGame	Py Game Nested Loops Py Game Functions (House) (due 6/14 5 pm)
6/15	Lists	Keyboard Input in pyGame	Bouncing Ball Edit (due 6/15 5 pm)
6/16	Lists in pyGame	Mouse Input in pyGame	None – Field Trip
6/17	Dictionaries	Multifile Programs	Final Project Proposal (due 6/17 5 pm)
6/20	More Functions	Sound in pyGame	Ten Balls Edit (due 6/20 5 pm) Final Project
6/21	Image Transformation	Review for Test #2	Final Project
6/22	Mastermind Example	Test #2	Final Project
6/23	FIEA Field Trip	FIEA Field Trip	Final Project
6/28	Class Wrap Up	Final Project	Final Presentation