

2017 SI@UCF Introduction to Python and PyGame Syllabus - Group A

Course Description: This course will teach Python, the package pyGame, and some classic algorithms. Topics include: basic input and output, use of variables, if statements, math functions, loops, the Python Turtle, functions, strings, lists, sets, dictionaries, recursion, depth first search, breadth first search, game design principles, graphics and animations, images and sounds, sprites and collisions.

Course Web Page: <http://www.cs.ucf.edu/~dmarino/ucf/bhcsi/2017/introA>

Grading: There are 8 daily homework assignments, each worth 4%. There are 2 tests, each worth 20%. The final project is worth the remainder of the course grade, 28%. This grade will be based on staying on task during the last week, the quality of the final product and the style of the code.

Day	Lecture	Recitation	Assignments
6/12	Hello world, Variables, Expressions	Input, Intro to Turtle	Buying Gas Changy Money Trains Turtle Day 1
6/13	More Expressions, Random numbers, If statement	Overloading of +, Turtle Examples with variables	Pictures Debbie's Numbers Turtle Day 2
6/14	if statement, for loop	if statement examples (Both reg, Turtle)	Pay Calculator Lemonade For Loop Progs Turtle Day 3
6/15	while loop	Turtle For Loop Examples	Integers Stolen Frisbee Car Payments Turtle Day 4
6/16	Nested loops	Test #1	Turtle Contest
6/19	lists, built in sorting	pyGame Introduction, pyGame motion	Tire Printing Paint 1 Racketball
6/20	dictionaries, file I/O	pyGame w/Lists	Ten Bouncing Balls Telephone
6/21	recursion	Asteroids Example, Collision Detection	Asteroids Edit Recursion Assignment
6/22	recursion	Game Structure – Choose Games	Work on Game Design
6/23	recursion	UI Choices	Passwords Final Project
6/26	stacks, queues	Code Design for Games	Final Project
6/27	Review for Test #2	Review for Test #2	Final Project
6/28	depth first search	Test #2	Final Project
6/29	breadth first search	TA Choice	Final Project
6/30	Final Project	Final Project	Final Presentation