DRAFT SYLLABUS

PYTHON PROGRAMMING

Instructor: Stephen Sarma-Weierman stephenjw@gmail.com (646) 730-3799

Meeting Time: Tuesday/Thursday 6:00 pm – 9:00 pm
Office Hours: By appointment

Course Description:
This course is designed to introduce students to basic problem solving methods and programming using the Python language. Python is a powerful high-level interpreted language popular in many development environments. By the end of this course, students should be well-prepared for an entry-level or internship position as a Python programmer.

Required Text:
Downey, Allen B. *Think Python: How to Think Like a Computer Scientist*. 2nd Edition, Version 2.2.15 (or later). http://www.thinkpython2.com

Recommended Text:
Lutz, Mark. *Learning Python*. 5th Edition. O'Reilly Media, 2013. ISBN: 1449355730

Proposed Outline:

March 1	Introduction to the course. Python 2 vs. Python 3. Installing Python. Introduction to programming and debugging.	pg. 1-16
March 3	Introduction to functions. Case study: Interface design.	pg. 17-38
March 8	Conditionals. Recursion. Functions. Iteration.	pg. 39-70
March 10	Strings. **Assignment 1 Due.**	pg. 71-88
March 15	Collections: Lists, Dictionaries, Tuples.	pg. 89-124
March 17	Data structures. **Assignment 2 Due.**	pg. 125-136
March 22	File I/O. Introduction to Object-Oriented Programming.	pg. 137-170
March 24	OOP continued. **Assignment 3 Due.**	pg. 171-192
March 29	Introduction to cross-platform development on iOS and Android using Kivy. Next steps in Python. *Review for final exam.*	
March 31	**Final Exam.**	

Attendance Policy:
Students are expected to arrive on-time and attend every session. If the student must miss class, the instructor should be notified as soon as possible. Missing 2 or more class sessions will result in a failing grade.

Evaluation:
Students will be evaluated based on both in-class participation and labs (15%), assignments, and a final exam.

The first assignment (15%) will demonstrate the students understanding of Python syntax, problem solving, and using functions.

The second assignment (15%) will demonstrate the students ability to use functions and collections.

The final assignment (15%) will demonstrate the students ability to apply object-oriented design and file I/O.

The final exam (40%) will demonstrate the students cumulative knowledge of Python programming.