Syllabus - COMP 171
Visual Information Processing – Mobile Apps with Google
Android using App Inventor
Dr. William L. Honig

Catalog Description
This is a course suitable for anyone wishing to study programming computers without pain. After taking this course, students should (a) have an understanding of what scripting languages can do and when they are suitable for use, (b) be able to program in one or more scripting languages such as Perl or Python, and (c) have an understanding of their applicability to scientific and business domains.

Prerequisites and Key Information
Prereq: None, only an interest in writing straight forward programs (scripts) to do work for you on the computer.

Scripting allows you to use programming tools and analytical methods to create your own helpers to do computational and repetitive tasks. Perl and Python have become popular due to their simplicity, expressiveness and applicability to various scientific and business domains.

Special Course Requirements
1. Comp 171 classes will expect a basic user level knowledge of personal computers, file structures, email, discussion boards / chat services, the internet, and installing applications on your own computer.
2. The version of Comp 171 will concentrate on Python, a open source language growing rapidly in use across a range of fields and devices (computers, robots, mobile phones, small micro controllers). We will use Python version 3. Note that version 2 is *incompatible* with version 3. You will not be able to use version 2 in the course.
3. The course may include some programming assignments done with another person or small team (“Pair Programming” or “Team Programming”).
4. The course will use Blackboard to organize materials. You will generally submit your assignments using Blackboard. Ask for help if you are not familiar with Blackboard (and see http://luc.edu/blackboard/Student_Resources.shtml).
5. The course will require you to use computers and write programs both in class and outside of class. The software used in class is available on university lab computers and

Comp 171 Syllabus, version 1
can be freely downloaded to your own personal computer. For information on Python including downloads, see
http://python.org/

6. Attendance is every class session is required and participation will be a portion of your grade

7. The instructor will be using a Windows computer; Python runs on Linux and MacOS computers as well. You can use these operating systems on your own computer but you will need to be prepared for dealing with possible differences, installation issues, and other problems with less direct assistance.

8. The course may use Adobe Connect to present materials and conduct some parts of the class as experimental online sessions. You must test your computer and network and be sure they are compatible at
https://connect.luc.edu/common/help/en/support/meeting_test.htm

Textbooks

Online free text book for reference
Online Python Text Book by Loyola's Dr. A. Harrington will be the main resource for the Python programming topics in the course:
http://anh.cs.luc.edu/python/hands-on/3.1/index.html

Please give me any feedback, comments, or questions you have on this text so that I can provide feedback to Dr. Harrington.

Much additional information on Python is available online.

Academic Honesty
Students are expected to have read the statement on academic integrity available http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml. This policy applies to the course. The minimum penalty for academic dishonesty is a grade of F for that assignment. Multiple instances or a single severe instance on a major exam or assignment may result in a grade of F for the course. All cases of academic dishonesty will be reported to the department office and the relevant college office where they will be placed in your school record.

Academic dishonesty includes, but is not limited to, working together on assignments that are not group assignments, copying or sharing assignments or exam information with other students except in group assignments, submitting as your own information from current or former students of this course, copying information from anywhere on the web and submitting it as your own work, and submitting anything as your own work which you have not personally created for this course. If you do wish to use materials that are not your own, please check with me ahead of time and cite you source clearly. When in doubt, ask first!

Course Objectives and Goals
Upon the successful conclusion of the course, the student will be able to demonstrate these knowledge areas and skills:
1. Have an practical understanding of what scripting languages can do and what they are suitable for
2. Be able to write scripts in Python. Be able to update, test, and debug those scripts to improve them and ensure they are correct.
3. Gain experience at defining an implementing scripting apps to help in their own field or with their own interests

**Course Grading**
Your grade will consist of these components with relative weights as follows (I reserve the right to adjust the percentages in your favor if circumstances warrant). See in addition the sections on Timely Completion and Academic Honesty.

1. Assignments – Programming and other assignments (55%). Programs will be graded on correctness of operation and style (design, understandability). No points for programs that do not run in the correct version of the tools used in class. Non-programming assignments, and in class assignments, if any, covering any topics in the course. These assignments will be graded based on completeness and other criteria defined in the assignment.
2. Participation (5%). All students are expected to attend all class sessions (face to face and/or online synchronous sessions) in person for the full time period. The participation grade will be based upon attendance and contributions to discussions in these sessions, and full, enthusiastic involvement in the hands-on computer work, and your regular and specific Blackboard discussion board contributions and commentary. Attendance will be taken in class sessions (including online sessions).
3. Examinations and Quizzes (40%). One midterm and one final examination scores. The final exam will be a larger part of the grade than the midterm exam (the final will be worth roughly twice as many points as the midterm exam). In class quizzes, generally unannounced. A pop quiz may be given in class at any time without prior notice; it may cover any topic in the course to date. This approach serves to encourage you to keep up-to-date on study assignments. There will be no “make-up” quizzes or exams unless you have made prior agreed to arrangements to be excused from class that day.

Your total points will be converted to a number in the range of 0 to 100 based on the percentages above for each type of assignment. Calculations will round fractional percentages below .500 down to the full number. I reserve the right to adjust this grading scale in your favor if it is warranted.

- 95-100 = A
- 90-94 = A-
- 87-89 = B+
- 82-86 = B
- 76-78 = C+
- 71-75 = C
- 65-67 = D+
- 60-64 = D
- 59 and lower = F

If for any reason you do miss a class session, it is your responsibility to determine what you missed, locate any handouts, determine any changes in assignments, course plans, or schedules, etc. It is not my obligation to help you make up for missing class.

Comp 171 Syllabus, version 1
Please do not ask for “extra credit” to improve your grade as this is neither practical in the course nor fair to your fellow students. I will be happy to discuss your performance in the course with you at any time, including discussing possible grade based on performance to date and ways to improve your performance during the remainder of the course.

Course Schedule Details
The planned schedule of the class is in a separate document and is part of this syllabus by reference. It will typically be available in Blackboard. The schedule is subject to change at any time based on student progress, needs, and special events. Updated schedule will be announced and posted for any change.

Timely Completion
The student is expected to complete all assignments, readings, and projects on time. In computer systems in the “real world”, there is always strong emphasis on getting projects done on time. Use class to develop your own skills at timely completion. Personal and team programming projects and other assignments will be due as described at time of assignment. See the class schedule for advanced planning.

Late assignment submission is strongly discouraged.
1. Each student will be allowed up to **TWO (2)** late assignments of their choice. Think of this as having two “Late OK” passes. These passes may be used for programming and non programming assignments (not for quizzes, exams, presentations, labs). Late Passes allow you to turn in the assignment up to 48 hours after the due date. Late passes are used by noting your intent to use one in Blackboard **before** the due date and then sending me the assignment in email and saying you wish to use a Late Pass.
2. No assignments will be accepted after the due date unless you are using one of your late passes. You must indicate you are using your late pass in Blackboard before the original due date and turn in the assignment within 48 hours of the original date. Once your Late Passes are used no more assignments will be accepted after the due date.
3. Assignments are generally submitted in Blackboard. You will not be able to submit assignments after the due date and time. Please plan ahead and be sure you complete the submission of the assignment on time.

You are welcome to ask questions on all assignments and course work, seek additional information on the assignments, and offer observations on the assignments to me either in or outside of class. To discourage procrastination, no questions on the assignment will be answered immediately before the assignment is due – please plan your work ahead and do not wait for the last minute to begin work!

Office Hours, Discussion Board, and Help
See my web page at [http://cs.luc.edu/whonig/](http://cs.luc.edu/whonig/). There will be both traditional office hours and online interactions with me and other students in the discussion boards. If these times

Comp 171 Syllabus, version 1
do not work for you, please let me know so adjustments can be made. Additional times are available by appointment.

There will be organized discussion sessions to encourage exchange of ideas and for interactions between students. These discussions will use Blackboard. Participation in the discussion boards for the class will count as part of your class participation grade. The purpose of these boards is for students to exchange questions and ideas. Help other students and share your insights. Asking things like “What’s the answer to homework number 3?” is not allowed (obviously). However, you are encouraged to ask for help on details and things that stump you. For example, “Anyone know how to find the average of a variable length list of numbers? I need to do that as part of my programming project 4”. Students are expected to both post questions and answer those of others in the discussion board. As a guide, you should be posting valuable new items and answering others helpfully at least three to four times for each class session.

Continuous Improvement

I believe in a personal quality process of continuous improvement. Anything can be improved by applying the quality process of “Plan, Do, Check, Act” (PDCA). To improve the course and the learning of these computer science concepts, I welcome your feedback, comments, suggestions, and complaints at any time.

In support of this PDCA process, I may ask you to participate in surveys during the course. These surveys will measure student impressions of the course; when time permits I will share the results with the class. Your inputs on these surveys are anonymous and in no way affect your grade.

Version 1.0 (original)
Comp171Syllabus.doc
Spring 2012