**COMP.1000 Media Computing Fall 2016**

**Instructor:** B.G. Kim x3617, [kim@cs.uml.edu](mailto:kim@cs.uml.edu)

**Office:**  231 Olsen

**Office hours**: M, W, F 8-9 am

**Course web page:** <http://www.cs.uml.edu/~kim/100.html>

**Textbook:**

Al Sweigart, “Automate the Boring Stuff with Python,” 2015

**References:**

Allen B. Downey, http://greenteapress.com/thinkpython/html/index.html

**Objectives:**

Computer programming is a design process, whereby you learn to break up a problem into a series of small steps. In this course, the process of creating a solution to a problem is emphasized. Starting from a conceptual viewpoint, an overall solution approach has to be first captured in a natural language, which is then translated in a particular computer programming language.

Programming with multimedia has a direct impact on the design process by providing not only an immediate visual or auditory feedback but also visual association of programming syntax with its effect on the multimedia. Data structures used in Computer Science, such as arrays, matrices, and stacks, will be absorbed as natural structures of images, sounds and move clips are manipulated in the computer.

**Topics:**

**Chap. 1: (1 wk) Expression, Assignment Statement, Variable, Function**

**Chap. 2: (2 wks) Flow Control – conditional, repeats**

**Chap. 3: (1 wk) Functions**

**Chap. 4: (1 wk) Lists**

**Chap. 5: (1 wk) Dictionary**

**Chap. 17: (2 wks) Images**

**Chap. 18: (1 wk) GUI**

**Evaluations:** (subject to changes)

In-class lab & attendance – 30%

HW & Project – 40%

(Programming & Project will be graded according to four categories: (1) the clarity of the algorithm, (2) the correctness of the working program, (3) the alternative approaches considered, and (4) the clarity of discussions on the result.

Two Tests – 30%

Notes:

* No make-up tests are administered unless accompanied by written documents.