



Introduction to Programming CS 115

Winter 2011

Class Schedules:

Lectures: Wed, Fri – 8:15-9:30 am
Tutorial: Mon, 8:15 – 9:30 am
Classroom - 2145

Instructor: Dr. Leonid Braverman

Email lbraverman@ambrose.edu

Office Location – TBA

Office hours – MWF 9:30 – 10:00, or by appointment

Course Description:

Introduction to algorithm design and implementation using a structured programming language (Python)

Discussion of, and practice with, elementary programming techniques with emphasis on good style

Text

John Zelle “Python Programming: an introduction to computer science”, 2nd edition
Franklin, Beedle & Associates (<http://mcsp.wartburg.edu/zelle/python/>)

NOTE: The Textbook can be purchased as a package at the Ambrose University College bookstore.

The “Python” is freeware software, and it can be downloaded from the web site:

<http://www.python.org/download/> (version 3.1.3)

Attendance

Students are expected to attend all classes and laboratories for which they are registered. Unexcused absence may result in loss of marks or in additional assignments being required. Unexcused absences may lead to a penalty on the final grade. Where the student has been absent without permission or legitimate cause for more than one-quarter

of the classes, an instructor may bar a student from writing the final examination in any course

Course Requirements

While students are encouraged to assist each other, each student must create her or his own original solution to assignments, quizzes and exams. Duplicate submissions will result in students involved receiving a zero for the submission. Further penalties may be mandated.

Grades will be calculated as follows.

Lab Assignments	=	20%
Mid-Term Test	=	35%
Final Exam	=	40%
Professionalism and Attendance	=	05%

Examinations

The exact schedule and coverage for the midterm test and the four quizzes will be announced in the class as the semester progresses. *The coverage may be modified from what is stated in this document.* The final examination will be held at a time and place scheduled by the Registrar, and will be three hours long. The midterm will be 1.5 hours long.

Assistance

Your instructor will be available in class, during office hours, and other times by appointment.

Tentative Lecture Plan

Week 1	Computers and Programs. Hardware and Software	CHAPTER 1
Week 2	My First Program, Computing with Numbers	Chapters 2, 3
Week 3	Computing with Numbers, Objects and Graphics	Chapters 3, 4
Week 4	Objects and Graphics	Chapters 4
Week 5	Objects and Graphics, Computing with Strings	Chapters 4, 5
Week 6	Computing with Strings , User Defined Functions; Midterm Test Fri, Feb 18	Chapters 5,6
Week 7	Decision Structures, Loop Structures and Boolean Expressions	Chapters 7, 8
Week 8	Decision Structures, Loop Structures and Boolean Expressions	Chapters 7, 8
Week 9	More Loops and Boolean Expressions Introduction to Simulation and Design	Chapters 8, 9
Week 10	Data Collections (Arrays)	Chapter 11.1, 11.2, Lecture Notes
Week 11-12	Algorithm Design and Recursion	Lecture Notes, Chapter 13 – selected paragraphs
Week 13	Course Review	