

Course Syllabus
CS 106 Computing Fundamentals II
Fall 2009 / Sections 1&2

Section 1 Instructor: Cynthia A. Brown (cbrown@cs.pdx.edu)

Office: 120-01 FAB. Office Hours: 3-4 pm Tuesday and Thursday or by appointment

Section 2 Instructor: Sergio Antoy (antoy@cs.pdx.edu)

Office: 120-02 FAB. Office Hours: 2-3 pm Monday and Wednesday or by appointment

Section 1 meets: 14:00-15:50, Tuesday and Thursday, CIN 92

Section 1 Final exam: Monday, Dec. 7, 10:15-12:05

Section 2 meets: 18:40-20:30, Monday and Wednesday, CH 71

Section 2 Final exam: Monday, Dec. 7, 19:30-21:20

TA's: Karan Sharma and Li Lei.

Office Hours: The TA's will hold most of their office hours in the study area (round table area) outside 120 FAB. Karan will be there M 9-11, T 10-1, R 10-11, F 1-2 and 3:30-6:30 pm. Li will be there M 10-11, T 10-12 and 6-8 pm, W 10-11, R 10-12 and 6-8 pm. These hours are for students from both sections.

Email: to email our TA's please use cs106ta@cs.pdx.edu

Graders: You can email the graders at cs106gr@cs.pdx.edu.

Prerequisites: You should be comfortable using computer software such as Microsoft Office products and Windows Explorer. If you do not have this prerequisite, you should take CS 105 before taking this class. Knowledge of high school algebra is also recommended.

Texts:

- *An Introduction to Programming Using Visual Basic 2008*, by David Schneider, 7th Edition (referred to as VB in the schedule below)
- *The Back of the Napkin: Solving Problems and Selling Ideas with Pictures*, by Dan Roam (referred to as BN in the schedule)
- You will need a thumb drive (also called a flash drive or memory stick) to store your programs and projects.

Course Goals:

- Learn general problem solving skills and methods
- Learn fundamental logic structures
- Use sequential, selective, and repetitive task processing, along with logic structures, for problem solving
- Be able to apply these skills using Visual Basic

Academic Honesty: All graded coursework, including exams and assignments, must be completed individually. You are encouraged to create study groups, consult the TA's, the professor, and your friends, to discuss your approach to the problems and to develop understanding. But the actual solutions must be your individual work. If you present someone else's work as your own, with or without their permission, or if you permit someone else to submit your work as their own, you will be penalized with a grade of zero for the exam or assignment in question. Offenders will also be reported to the Dean of Students.

Software and Labs: You have several options for doing the programming exercises. The text comes with a copy of Visual Basic express edition, or you may download one from Microsoft at <http://msdn.microsoft.com/express/download>. Instructions on how to do this are on the Blackboard site. Note that you must have a Windows computer or a Mac with Windows emulation to run Visual Basic. If you want to work in a University lab, I recommend the one on the second floor of the Broadway building. It has the most up to date computers on campus and all of them will have VB 2008 loaded. It is open 24 hours most days. Another lab you can use is SBA 360. **Be sure to save your work on your flash drive EVERY time you work on a program!** The University computer accounts may not save your work reliably, and computers are subject to various kinds of problems. To save your work you must use the Save All option. See the detailed instructions posted on the Blackboard site.

You can download a complete copy of Visual Studio from the MSDN website under the academic alliance. You first need to be registered with MSDN to do so. Go to <http://labs.sba.pdx.edu/> to sign up. (Engineering students can go to <http://www.cat.pdx.edu/software/microsoft-developers-network-academic-alliance-software.html>) Complete instructions are in the how-to folder on the blackboard site.

Attendance: Class attendance is not required, that is, attendance will not be taken and you will not be graded on attendance, but you are *strongly urged* to attend. Most students benefit greatly from hearing the in-class explanations, and material will be covered in class that is not in the textbooks.

Grading policies and procedures: Your grade will be based on the graded homework exercises (30%), the two midterms (20%, 20%), and the final exam (30%). Homework is due on the Friday of the week after it is assigned. Homework that is up to one week late will be accepted and graded at 80% of the full score. Because it is very important to stay current with class material, homework that is more than one week late will not be accepted except with the explicit permission of the instructor.

Grading scale: If you earn the percent grade shown on this scale, you will receive at least the indicated letter grade.

		87-89%:	B+	77-79%:	C+	67-69%:	D+
100-93%:	A	83-86%:	B	73-76%:	C	63-66%:	D
90-92%:	A-	80-82%:	B-	70-72%:	C-	60-62%:	D-

A score below 60% is likely to be a failing grade.

Flu: There is likely to be a serious problem with flu this term. While we strongly encourage class attendance, our classes are large and crowded: a perfect venue for flu germs to spread. Please, if you have flu symptoms, DO NOT come to class. Wait until you are free of fever for at least 24 hours. The lecture notes and other class materials are posted on Blackboard for you. If you need to miss a deadline because of illness, let your instructor know, and we will make allowances. You do not need a doctor's note for this. If you need to miss an exam, we will arrange for a makeup. Let's help everyone stay as healthy as possible.

Class Schedule:

- 1 (Sep 28/29) General Intro; Problem Solving
BN The six essential questions (Chapters 1-5)
VB Chapter 1: Intro to Computers and Problem Solving
- 2 (Sep 30/Oct 1) Problem Solving: Use Cases and Tests
BN: Visual tools for answering the six categories of questions (Chapters 6 and 7)
VB Chapter 2: Visual Basic, Controls, and Events
Assignment 1 (Hello World); due Oct 9
- 3 (Oct 5/6) Problem Solving: Flowcharts, Event-driven design
VB Chapter 2: Controls and Events
(Finish reading BN when you have time)
- 4 (Oct 7/8) Problem Solving: Data Representation
VB Chapter 3: Variables, Input/Output, Data Types
Assignment 2 (Controls, I/O, Variables); due Oct 16
- 5 (Oct 12/13) Problem Solving: Implementing the solution
VB Chapter 3: Variables, Input, and Output
- 6 (Oct 14/15) Problem Solving: Logic and Conditionals
VB Chapter 4: Decisions
Review Sheet for Midterm 1 available
- 7 (Oct 19/20) Problem Solving: Logic and Conditionals

	VB Chapter 4: Decisions Assignment 3 (Conditionals, Check boxes, Radio buttons); due Oct 30
8 (Oct 21/22)	Review and Questions
9 (Oct 26/27)	Midterm 1
10 (Oct 28/29)	Problem Solving: Identifying and encapsulating tasks VB Chapter 5: General Procedures
11 (Nov 2/3)	Problem Solving: Identifying and encapsulating tasks VB Chapter 5: General Procedures Assignment 4 (Procedures): due Nov 13
12 (Nov 4/5)	Problem Solving: Controlled Repetition VB Chapter 6: Loops
13 (Nov 9/10)	Problem Solving: Controlled Repetition VB Chapter 6: Loops Assignment 5 (Loops): Due Nov 20
14 (Nov 11/12)	Problem Solving: Structured Data VB Chapter 7: Arrays. (Veteran's day Nov 11)
15 (Nov 16/17)	Problem Solving: Structured Data VB Chapter 7: Arrays. Review and Questions
16 (Nov 18/19)	Midterm 2
17 (Nov 23/24)	Problem Solving: Structured Data VB Chapter 7: Arrays. Assignment 6 (Arrays): Due Dec 4
18 (Nov 25/26)	Problem Solving: Structured Data VB Chapter 7: Arrays. (Thanksgiving Nov 26)
19 (Nov 30/Dec 1)	Overview of databases and VBA
20 (Dec 2/3)	Review and Questions
(Dec 7)	Final Exam