Northern Michigan University

Department of Mathematics/Computer Science

CS120 Programming I Winter 2004 Section 01

Syllabus

latest update: 10 January 2004
URL for course info: http://Ellerbruch.nmu.edu/classes/cs120w04/CS120.html
Seq #: 10546 section 01
10:00 - 10:50 am M W Th F Room NSF 1209
Prerequisite: C- in MA 100 or equivalent

Instructor Information:

Instructor: L. W. Ellerbruch

Office: NSF 1109

Telephone: 227-1597

Office Hours: As posted by office door but will include:

11:00 - 11:50 AM M W Th F

1:00 - 1:50 PM M W Th F

Other hours by arrangement.

Text:

Peterson, B. C. and L. W. Ellerbruch, *GUI JAVA, an Introduction to Computer Programming*, 2004.

Optional references:

See List on WWW.

Basic Philosophy and content for the course:

The course will be built around the rule of "four"; every topic should be presented visually, numerically, abstractly (algebraically) and have a strong emphasis on written communication. In-class work, homework, exams and quizzes, and projects will utilize all four components as much as is reasonably possible. Communication is important and individuals are encouraged to talk about programming with other members of the class AND members of the other programming sections. Cheating is defined as

turning in someone else's work as your own. It is not cheating to work with others. Sharing the learning and teaching is an important part of the course.

Technology will be an important component of classroom instruction and learning. Students will use computers. E-mail, mail groups, and the internet will be used extensively.

This course is an introduction to computer programming. There is NO PROGRAMMING EXPERIENCE REQUIRED. If you have considerable programming experience, you may be in the wrong course, check with the instructor.

The JAVA programming language will be used for the course.

Time Commitment

Programming inevitably involves a great deal of problem solving. The combination of problem solving, learning a new language, and developing new skills often takes a great deal of time. The rewards are commensurate with time and effort. The normal expectation for a programming course of this nature is that the student will spend a minimum of ten hours a week outside of class and some students will spend substantially more time. Students frequently report averaging fifteen to twenty hours a week outside of class.

Calculators and Technology:

All students will acquire and use a university e-mail account. Information will be sent to the students by e-mail. Students will be expected to communicate with each other and the instructor by e-mail. A complete and up-to-date syllabus, list of assigned exercises, list of assignments, and other information related directly to the class will be available on a WWW page on the instructor's WWW server.

It is probably wise to bring a calculator to class or get the TI-83 emulator which can be installed on the laptops. All homework, in-class instruction, quizzes, and exams will assume the student has and can use a calculator. Test questions may involve numerical situations which would be difficult if not impossible to complete manually. The student is responsible for making the connection to the material, mathematical ideas, techniques, and technology being used in class.

It is assumed students will use word processing, editors, and graphing programs on microcomputers to complete reports/projects/programs. Students will use e-mail, a WWW browser, mail groups, editors, and various software. Demonstration lessons will be provided for the Macintosh and the laptops.

Assignments:

In-class exercises and out-of-class exercises will be assigned on a regular basis. It is expected that students will complete all assigned homework exercises. Some homework sets may be collected. Some homework exercises may be marked. Some homework exercises may be used as quiz/test items.

Reading assignments will be made, and it is very important to complete them.

There will be in-class discussion and group work. Participation is expected.

Assignments will be made which will require writing/programming. There will be from six to eight major programs assigned and numerous "exercises." Reports, projects and programs will be submitted electronically. There will be projects which may be completed by groups with only one report/program for the group, projects which require group problem solving with individual reports/programs, and projects which are independent. Students may be required to make their results/reports/programs available on the World Wide Web.

Students will be responsible for instructional material placed on the WWW for them, or assigned to them.

Collaboration

It is expected and students are encouraged to work together in order to assist each others understanding. But, programs turned in must be substantially produced and understood by the individual seeking credit. If there is any question about the production, performance, or understanding of a program, the instructor reserves the right to question an individual regarding the details of the program. Inability to explain the program or lack of understanding of the program will be considered evidence for no credit on the program. Direct evidence of turning in another individual's work as your own (plagiarism or theft) will result in an 'F' in the course.

Attendance:

Attendance is required. Major exams may be made up only if the absence is excused **prior** to the absence. Daily/in-class work or quizzes may not be made up! Attendance will be reflected in the participation grade. Required attendance at university functions will be given consideration.

Grading:

Exams

There will be exams and quizzes worth 300 - 600 points. There will be a comprehensive final which will be mandatory for all students with less than a "B" average. The final **may** be optional for those with a "B" or better. The quizes, tests, and final may be of a non-standard format which might include a group component or an on computer component.

Quizzes

Quizzes will usually be unannounced and will usually be of very short duration. There may be a quiz any day. Likely material for the quizes will include short answer or essay questions, homework problems, or material emphasized in class.

Points

Points are cumulative for all class activities. There will be about:

points	category
500 - 800	Exams: tests, quizzes, final

250 - 400	projects/programs
100 - 200	participation

There will be a five percent penalty per calendar day off the top of a program for each day it is late before the assignment is returned and a ten percent penalty per calendar day off the top of the program for each day it is late after the assignment has been returned/marked.

There may be some opportunity for bonus points, but they will only apply to the portion of the grade they are earned in and the maximum final score in an area is 100%. That is, bonus points earned in assignments cannot improve test scores.

Letter Grades

Point equivalents for assignments receiving letter grades are as follows:

GRADE: % equivalent

A+	99
A	95
A-	91
B+	88
B	85
B-	81
C+	77
C	70
C-	62
D+	58
D	54
D-	51
F+	40
F	30
F-	20

The following is the guaranteed scale for **final** grades.

GRADE DISTRIBUTION

% score: GRADE

92 -	A
90 - 91.99	A-
87 - 89.99	B+
83 - 86.99	B
80 - 82.99	B-
75 - 79.99	C+
65 - 74.99	C
60 - 64.99	C-
57 - 59.99	D+
53 - 56.99	D
50 - 52.99	D-
0 - 49.99	F

However, the instructor reserves the right to adjust the curve downward slightly to allow for better breaks between letter grades. He also reserves the right to discard one or more quiz grades for every student from the percent calculation, but this is not a guarantee. There may be some opportunity for bonus points.

Final

There will be a final exam and all students with an average of less than "B" will be required to take it. The final **may** be optional for those with a "B" or better average. The final time will be the scheduled time (from 10:00 to 11:50am Thursday 29 April 2004 unless there is a change or correction in the university schedule) in NSF 1209.

NOTES:

All material in the course is cumulative and once covered in class, or assigned, may be used on any test or quiz.

DISABILITY:

DISABILITY STATEMENT
If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office located in Room 1104 of the University Center (227-1700; TTY 227-1543). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.