CSE 113 Introduction to Computer Programming 1

Spring 2018

Course Description

Introduction to computers and computer programming intended for nonmajors. Appropriate for those seeking a practical introduction to computer programming. Topics include the use of data types and variables, programming control constructs supported by modern languages, input/output, basic concepts of object-oriented programming (such as classes, objects, encapsulation, information hiding, and code reuse), as well as graphical user interfaces. No previous computer experience assumed. Not suitable for intended computer science or computer engineering majors. Admitted computer science and computer engineering students should not take this course.

Learning Outcomes

At the end of the course the student should be familiar with several core programming concepts including modular design, object oriented design, and selection. Students will also have gained experience in using programming to solve problems.

Course Prerequisites

None, however familiarity with using a computer is necessary. If you do not feel comfortable with word processors, web browsers, or general computing this course may not be appropriate at this time for you and you should speak with the instructor immediately.

Course Requirements

Not enrolled as a computer science or computer engineering major. Successful completion of this course requires students to attend lectures and labs along with completing assignments, exams, labs and quizzes with a high level of quality and care.

Textbook

Recommended:
C. Reas and B. Fry, “Processing: A Programming Handbook for Visual Designers and Artists”, Second Edition, 2014, MIT Press. ISBN:978-0-262-02828-8

Additional resources will be provided to you to supplement the textbook, these will be from http://www.processing.org which is a great resource of tutorials, examples and applications. This is also where you will be able to get the software for free for the course.

Schedule

Lecture:
MWF 3-3:50pm Hochstetter 114

Recitation: Bell 340
A1: M 8 am - 9:50 am
A2: R 8 am - 9:50 am
A3: R 11 am - 12:50 pm
A4: T 2 pm -3:50 pm
A5: T 11 am - 12:50 pm
A6: W 11 am -12:50 pm

Attendance

Lectures:
If you do not attend lecture you risk missing important content, information and your points for TopHat for that day. There will be no enforcement of attendance other than when exams and quizzes are scheduled. If you do not show up for an exam or quiz without previous arrangements barring extreme unforeseeable circumstances then you will not be allowed to make up the exam. On a regular lecture day, if you know you will not make it to class and want to be excused from TopHat, you need to email the instructor ahead of time with an explanation, after class has started only extreme situations will be considered.

Recitations/Labs:
When labs are assigned it is mandatory(but not enforced) that you attend your assigned recitation section to perform your lab. If there is a prelab or in-lab assignment, it can only be done during your assigned recitation, and you must be on time that day. If you must miss your section, speak with your TA/instructor as soon as possible to see if any accommodations can be made. Sections are full so attending other sections is not allowed without express permission. You are to use this time to work on your lab assignments however you may need to spend additional time outside of the recitation to complete the work. You may also use this time to work on other course related assignments.

Office Hours

Unless instructed that they have changed.
To Be Announced, Davis 351
By appointment, email to arrange.

TAs will provide additional office hours which will be announced.

Instructor Contact Information

Dr. Jenn Winikus
Email: jwinikus@buffalo.edu
Office Phone: 716-645-4757
Office: Davis 351

Academic Content

This is a tentative list of topics includes:

- Processing language
    - Processing syntax
- Programming foundations
    - Modular approaches
    - Variables
    - Logic operations
    - Control structures
- User interface
    - Mouse operations
    - Simulating motion
- Object oriented programming basics
- Graphical programming
    - Visualization foundations

Grading Policies

Your grade will be comprised of:
12.5 % Exam 1
12.5 % Exam 2

20 % Final Exam
5 % TopHat
10 % Homework, quizzes, and other assignments
40 % Laboratory Assignments
2% extra credit will be available by completing one the extra credit options provided.

Other extra credit opportunities may be made available.

Your final score for the course will be converted into a letter grade as follows:

- A: 100–94
- A-: 93–90
- B+: 89–87
- B: 86–84
- B-: 83–80
- C+: 79–77
- C: 76–74
- C-: 73–70
- D: 69–60
- F: 59–0

The instructor reserves the right to curve grades if appropriate.

Incompletes (I/IU): The course follows the university undergraduate incomplete policy. A grade of incomplete ("I") indicates that additional coursework is required to fulfill the requirements of a given course. Students may only be given an "I" grade if they have a passing average in coursework that has been completed and have well-defined parameters to complete the course requirements that could result in a grade better than the default grade. An "I" grade may not be assigned to a student who did not attend the course.

Prior to the end of the semester, students must initiate the request for an "I" grade and receive the instructor's approval. Assignment of an "I" grade is at the discretion of the instructor.

The instructor must specify a default letter grade at the time the "I" grade is submitted. A default grade is the letter grade the student will receive if no additional coursework is completed and/or a grade change form is not filed by the instructor. "I" grades must be completed within 12 months – see the Incomplete Grade Policy for the schedule. Individual instructors may set shorter time limits for removing an incomplete than the 12-month time limit. Upon assigning an "I" grade, the instructor shall provide the student specification, in writing or by electronic mail, of the requirements to be fulfilled, and shall file a copy with the appropriate departmental office. Students must not re-register for courses for which they have received an "I" grade

Collaboration Policies

Unless explicitly told, all work is to be done independently with only the assistance of TAs and the instructor. You may discuss the general concepts of assignments and what the question asks for with other students but you may not discuss answers.

Unauthorized collaboration will result in an “F” in the course as a violation in academic integrity.

Exam Policy

There will be 3 exams. Two exams will be in class, the final exam is scheduled by the registrar. You must have a valid ID with you at the time of the exam (UB Card will suffice) and your own writing tools. You can not borrow pens or pencils during the exam. During the exam there is to be no talking or looking at your phone, doing so may result in an automatic “F” on the exam based on the incident.

Any accommodations must be made in advanced barring extraordinary circumstances.

Due Dates

All submissions will be made on UBLearns unless otherwise instructed.

Late work:
No work will be accepted after midnight on Friday of the last week of classes barring extraordinary circumstances. This includes requests to have your grades reviewed and regraded.

All assignments have a time and day due date, you may submit up to 24 hours late at no penalty. After that no late work will be accepted barring extraordinary circumstances and that no solutions have been released. In that case a late penalty may be applied. If a regrade is desired, you have 1 week from the time the grade is released to request a regrade of the assignment to the instructor. Only the instructor can do the regrading of assignments. Corrections are not allowed on homework and lab assignments.

Email Policy

Students are responsible for email sent to their official University at Buffalo email address. Communication will not be done with non-university email addresses. A level of professionalism is expected with all communications.

Accessibility Resources

If you have any disability which requires reasonable accommodations to enable you to participate in this course, please contact the Office of Accessibility Resources, 60 Capen Hall, 645-2608, and also the instructor of this course. The office will provide you with information and review appropriate arrangements for reasonable accommodations.

University Policies

You are expected to adhere to all university policies, including those listed below and not listed.

Academic Integrity Policy:
http://undergrad-catalog.buffalo.edu/policies/course/integrity.html

University Policy on Accommodations:
https://policy.business.buffalo.edu/Policy%20Library/Reasonable%20Accommodation.pdf

The Office of Equity, Diversity and Inclusion provides many resources including the following policies to be followed:

Discrimination and Harassment:
http://www.buffalo.edu/administrative-services/policy1/ub-policy-lib/discrimination-harassment.html

Reasonable Accommodation:
http://www.buffalo.edu/administrative-services/policy1/ub-policy-lib/reasonable-accommodation.html

Religious Accommodation and Expression:
http://www.buffalo.edu/administrative-services/policy1/ub-policy-lib/religious-accommodation-expression.html

Departmental Academic Integrity Policy
https://engineering.buffalo.edu/computer-science-engineering/undergraduate/resources-for-current-students/academic-integrity-students.html

Student Code of Conduct
http://www.buffalo.edu/content/dam/www/studentlife/units/uls/judicial-affairs/ub-student-code-of-conduct.pdf

Classroom Behavior Expectations
https://catalog.buffalo.edu/policies/obstruction.html

Departmental Statement on Academic Integrity in Coding Assignments and Projects

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All academic work must be your own. Plagiarism, defined as copying or receiving materials from a source or sources and submitting this material as one's own without acknowledging the particular debts to the source (quotations, paraphrases, basic ideas), or otherwise representing the work of another as one's own, is never allowed. Collaboration, usually evidenced by unjustifiable similarity, is never permitted in individual assignments. Any submitted academic work may be subject to screening by software programs designed to detect evidence of plagiarism or collaboration.

It is your responsibility to maintain the security of your computer accounts and your written work. Do not share passwords with anyone, nor write your password down where it may be seen by others. Do not change permissions to allow others to read your course directories and files. Do not walk away from a workstation without logging out. These are your responsibilities. In groups that collaborate inappropriately, it may be impossible to determine who has offered work to others in the group, who has received work, and who may have inadvertently made their work available to the others by failure to maintain adequate personal security. In such cases, all will be held equally liable.

Departmental Policy on Violations of Academic Integrity

The CSE Department has a zero-tolerance policy for AI violation.
All AI violation cases will be reported to the department, school and university, and recorded.
Even the 1st offense will receive "F" for the course, unless the instructor deems it appropriate to reduce the penalty.
Subsequent violation of AI in any form and in any other course will automatically result in a "F" grade, with no exception.

Tentative Schedule

The schedule and content is subject to change.

Week	Date	Material
1	M- Jan 29	Introduction
1	W- Jan 31	Intro to Processing
1	F- Feb 2	Elements and Primitives
2	M- Feb 5	
2	W- Feb 7	Arithmetic
2	F- Feb 9	Decisions and Control Structures
3	M- Feb 12	
3	W- Feb 14	Introduction to Animation
3	F- Feb 16	
4	M- Feb 19	Arrays and Data Structures
4	W- Feb 21	
4	F- Feb 23	Review for Exam 1
5	M- Feb 26	Tentative Exam 1
5	W- Feb 28	More Data Structures
5	F- March 2	
6	M- March 5	Data Analysis (Read in, process, and create a graphical display of the information)
6	W- March 7	
6	F- March 9	Matrix Manipulation
7	M- March 12	
7	W- March 14	

7	**F- March 16**	
8	**M- March 19**	**No Class- Spring Break**
8	**W- March 21**	**No Class- Spring Break**
8	**F- March 23**	**No Class- Spring Break**
9	**M- March 26**	**Text and More Control**
9	**W- March 28**	
9	**F- March 30**	**Exam 2 Review**
10	**M- April 2**	**Tentative Exam 2**
10	**W- April 4**	**Advanced Control**
10	**F- April 6**	
11	**M- April 9**	
11	**W- April 11**	**Advanced Modular Design**
11	**F- April 13**	
12	**M- April 16**	
12	**W- April 18**	**More Arithmetic**
12	**F- April 20**	
13	**M- April 23**	**Object Oriented Programming**
13	**W- April 25**	
13	**F- April 27**	
14	**M- April 30**	
14	**W- May 2**	
14	**F- May 4**	
15	**M- May 7**	
15	**W- May 9**	
15	**F- May 11**	**Review for Final**

		Last Day of Class
	M- May 14	**Final Exam Week- No Class**
	W- May 16	**Final Exam Week- 3:30 - 6:30 pm Hochstetter 114**
	F- May 18	**Final Exam Week- No Class**

Final exam is scheduled (this is subject to change and is determined by the registrar)- May 16, 3:30-6:30 Hochstetter 114

Important Dates

First Day of Classes: Monday January 29
Last Day to Drop/Add: Monday February 5
Last Day to Resign: Friday April 20
Last Day of Classes: Friday May 11