

University at Buffalo
Department of Computer Science & Engineering
 201 Bell Hall - (716) 645-3180

Syllabus

Please read this sheet carefully, and save it for future reference.

Instructors

Name	Office	Phone	Email	Web
Adrienne Decker	130 Bell	645-3184	adrienne@buffalo.edu	http://www.cse.buffalo.edu/faculty/adrienne

Course Information

Credit hours: 4

Course Website: <http://www.cse.buffalo.edu/faculty/adrienne/FA2010/cse113>

NOTE: UBLearns will only be used for the posting of grades. All other course materials will be available only from the website given above.

Lecture Times:

Monday, Wednesday, Friday 3:00 - 3:50 107 Talbert

Recitation Times (all recitations meet in 340 Bell):

B1 W 12:00 - 1:50 B3 F 10:00 - 11:50
 B2 R 9:00 - 10:50 B4 W 8:00 - 9:50

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 except those who have absolutely no experience using a computer. **Admitted computer science and computer engineering students should not take this course.**

Schedule of Topics

The following is a tentative list of topics. A more detailed schedule is maintained on the course website and should be checked often for updates. Note that this listing does not imply ordering.

- The Java Programming Language
 - Java syntax
 - Java programming environment
 - Dealing with compilation errors
 - Basic debugging skills
- Object Interaction and Behavior
 - Calling methods
 - Writing methods (including the use of return types and parameters)
 - Constructors (using and writing)
 - If-statements (conditional logic)
 - Instance variables (fields)
 - Assignment statement

- Object-oriented programming basics
 - Objects
 - Classes
 - Introduction to inheritance
 - Encapsulation
- Graphical programming
 - Dealing with animated objects on the screen
 - Collision detection
 - Gravity
- Variables and references
- Loops
- Arrays
- Strings
- Lists
- Method overloading
- Introduction to Class libraries (Java standard libraries)

Course Objectives

At the end of this course, students will have been introduced to several of the main concepts in computer programming including sequencing, selection, and iteration. Students will be able to use these constructs to create a solution to solve a simple problem and create a small to medium sized software program. Students will have also been introduced to some of the main concepts of object-oriented programming and be able to write and use their own classes in their programs.

Prerequisites

There are no formal prerequisites for this course. However, if you have never used a computer before or do not feel comfortable using web browsers, email clients, instant messaging programs, word processors, or spreadsheets and would like a general introduction to these type of concepts, this is not the course for you. In this course, we will be creating computer programs in a modern high-level language (Java). If you are not comfortable working with a computer, you will not do well in this course.

Textbooks and Materials

The required textbook for this course is:

- Michael Kölling. 2009. Introduction to Programming with Greenfoot: Object-oriented programming in Java with Games and Simulations, Pearson Education. (ISBN: 0-13-603753-4)
 - This book is also available as an e-book through the publisher's website: <http://www.coursesmart.com> using ISBN: 0136025307

Additional reference (optional)

- Peter DePasquale. 2004. Addison Wesley's Java Backpack Reference Guide, Addison-Wesley. (ISBN: 0-32-130427-6)

Please note that the above does come pre-packaged with the required text at the bookstore. If you choose to pick up the entire packet, this will be fine. If you choose to pick up just the main text and not the reference, you can decide at a later time to get a copy of the reference.

Additional reading material may be assigned during the course, and will be announced in lecture.

Computing Resources

You will be provided with a computing account through the school of engineering. You may use the lab facilities in Bell 340 during your recitation section. Additional times may be available during the week in the lab. Remote access is also available to the servers from other machines on campus, primarily Bell 101.

The name of the server that you will be connecting to in the lab will be `linux.eng.buffalo.edu`. You have the ability to connect to this server remotely from other sites, on or off campus.

You are expected to become proficient at using the machines in the lab, the Unix system, the Java compiler, and whatever other software development tools the course requires you to use. It is your responsibility to ensure that any programs you write for this course compile using the Java compiler installed on the department's machines.

All communication regarding this course must be sent from a UB email account. Under no circumstances will e-mail from non-UB accounts be acknowledged or answered. You must include an informative subject line in all e-mail, and include your full name in any e-mail correspondence.

All e-mail that we send in reply to your e-mail will be sent to the address from which you sent your e-mail. Our feedback on materials you hand in electronically will be sent to your UB e-mail account only. Announcements and other messages may also be sent via email using the facilities for sending mass email available in UBLearn. Since you may request re-grades of work only within a set period from the time that the feedback was provided to you, and course announcements could provide you with important information, it is in your best interest to read your UB e-mail account on a daily basis.

Course Organization

The course has both a lecture component and a recitation component. Each component plays a role in helping you achieve the objectives of the course. If you do not participate fully in both you should not expect to do well in the course.

Lectures

The conceptual and theoretical course content will be delivered primarily in the lectures, complemented by readings from the text books. You must review readings prior to attending a lecture, and you are expected to review the readings again, along with any notes you took, after the lecture.

Some of the topics will be difficult. It is therefore absolutely essential that you ask questions whenever something is said which you do not understand.

You are expected to attend all lectures. If you are unable to attend a lecture because of sickness or similar reasons, make sure you get the notes from a classmate. If you are out of class for an extended period of time because of sickness, notify your instructor as soon as possible, and see your instructor immediately upon your return in order to determine how to catch up. If you have missed a significant portion of the semester due to illness, it is recommended that you resign from the course.

Recitations

The recitations are an integral part of the course. In each recitation section, the TAs will answer questions about the currently assigned programming assignments (called labs). You are free to ask any questions about the labs and get assistance from the TAs during this time on your personal assignment. Recitations meet in a computer lab so you are free to work on your assignments during this time. It is possible that you will be able to finish your lab work during the recitation time. However, it is also possible that you will need to work outside of lab time to finish the assignments.

Recitations do not meet in the first week of classes.

Time outside of class

Office hours

Office hours offer you the opportunity to ask more individual questions about the course material than can typically be addressed in lecture. Both the instructor and the teaching assistants have scheduled office hours. Office hours are held on a first-come first-served drop-in basis. No appointment is necessary to attend office hours. Be aware that office hours become increasingly busy the closer it is to a project deadline. Plan your use of office hours accordingly. Individual appointments may be arranged, if needed, as schedules allow.

Study time

In this course, as in any course, you are expected to put in additional time beyond the scheduled class times. Professors generally expect that for each credit hour a class carries a typical student will put in 2-3 hours of time each week outside of class. Since this is a 4 credit course that translates into 8-12 hours of time outside of scheduled times, each week. During this time you should review your lecture notes, attend office hours as needed, get hands-on practice applying the concepts and theoretical constructs discussed in class, and possibly arrange to meet in small groups to study or review the concepts from class. As a rough guide, you should expect to spend at least the following time working on this course, each week:

- Lectures: 3 hours
- Lab time: 2 hours
- Programming assignments: 4 hours
- Individual study: 4 hours

Course evaluation

The following indicates the grade breakdown which will be used in assigning grades in the course. The right is reserved to make small adjustments to the breakdown if it is necessary.

Exam component (45% of final course grade)

There will be four in-class examinations. Your highest three exam grades will make up 45% of your final course grade. Each of those three exams will be weighted equally in the final grade calculation. The exams will not be cumulative per say, but the nature of the course is such that knowledge of earlier material will be required to answer questions about later material.

The dates for the exams will be posted to the course website.

If you miss an examination because of sickness or similar reasons, visit a physician and obtain a note detailing the period during which you were medically incapable of taking the exam. Notify your instructor immediately via e-mail or telephone (voice mail) if you are going to miss an exam, before

the exam takes place unless medically impossible. See your instructor as soon as you return to class. If you miss an examination without a valid excuse, you will receive a zero grade for that examination.

No make-up examination will be available without a valid excuse.

You must bring a valid form of picture ID with you to each examination (a UB Card will suffice).

Please take note of the scheduled dates for the exams. However, a missed exam can be used as your lowest exam score for the course. That also means if you are happy with your first three exam scores, you do not necessarily need to take the fourth in-class exam.

Programming Practical Component (32% of final course grade)

This course will have two programming practicals. The first will be given during recitation midway through the semester. This first practical will be worth 12% of your overall course grade. The second practical will be held during final exam week. You will need to schedule an appointment for the second practical. Times and scheduling will be made available after UB's final exam schedule is posted. The second practical will be worth 20% of your overall course grade.

More information about practicals will be explained in lecture closer to the dates of the first practical.

You must attempt the second practical in order to earn a passing grade in the course. This means, if you do not take (or are not allowed to take - see below) the second practical exam in this course, the highest grade you can earn is an F for the semester.

Programming Assignments (20% of final course grade)

There will be ten programming labs assigned throughout the semester. Each lab is worth 2% of the overall course grade. You must achieve a score of passing (50%) on EACH of the ten labs to be allowed to take the second practical exam.

Letter grades

The following table indicates the number to letter grade mapping I will use to assign final grades at the end of the course. The Grade points column is included for your convenience only, and is not official information. The official mapping can be found in the Undergraduate Catalog.

Percentage score	Letter grade	Grade points
90-100	A	4.0
85-89	A-	3.67
80-84	B+	3.33
75-79	B	3.0
70-74	B-	2.67
65-69	C+	2.33
60-64	C	2.0
55-59	C-	1.67
50-54	D	1.0
0-49	F	0.0

Re-grading

If you have a question about the grading of any piece of work, first consult with the staff member who graded your work. If it was a teaching assistant who graded your work and you are unable to resolve your questions with that person, you should consult with the instructor of the course.

Any questions about the grading of a piece of work must be raised within one week of the date that the work was returned by the teaching assistant or the instructor. In other words, if you do not pick up your work in a timely fashion, you may forfeit your right to question the grading of your work.

Incomplete (I) grades

We will follow the UB Undergraduate Catalog Statement on Incomplete Grades, found in the Undergraduate Catalog.

Generally, incomplete (“I”) grades are not given. However, very rarely, circumstances truly beyond a student's control prevents him or her from completing work in the course. In such cases the instructor can give a grade of “I”. The student will be given instructions and a deadline for completing the work, usually no more than 30 days past the end of the semester. University and department policy dictate that “I” grades can be given only if the following conditions are met:

- An Incomplete will only be given for missing a small part of the course.
- An Incomplete will only be given when the student misses work due to circumstances beyond his/her control.
- An Incomplete will only be given when the student is passing the course except for the missed material.
- An Incomplete is to be made up with the original course instructor within the time specified by the appropriate University regulation (see appropriate document above), and usually within the following semester.
- An Incomplete will not be given to allow the student to informally retake the entire course, and have that grade count as the grade of the original course.

Incompletes can not be given as a shelter from poor grades. It is your responsibility to make a timely resignation from the course if you are doing poorly for any reason. The last day to resign the course is **Friday, November 12th**.

General Notes

If you don't understand something covered in class, ask about it right away. The only silly question is the one which is not asked. If you get a poor mark on an assignment, quiz, or exam, find out why right away. Don't wait a month before asking. The instructor and teaching assistants are available to answer your questions. Don't be afraid to ask questions, or to approach the instructor or T.A. in class, during office hours, or through e-mail.

Disabilities

If you have a diagnosed disability (physical, learning, or psychological) that will make it difficult for you to carry out the course work as outlined, or that requires accommodations such as recruiting note-takers, readers, or extended time on exams or assignments, you must consult with the Office of Disability Services (25 Capen Hall, Tel: 645-2608, TTY: 645-2616, Fax: 645-3116, <http://www.student-affairs.buffalo.edu/ods/>).

You must advise your instructor during the first two weeks of the course so that we may review possible arrangements for reasonable accommodations.

Counseling Center

Your attention is called to the Counseling Center (645-2720), 120 Richmond Quad. The Counseling Center staff are trained to help you deal with a wide range of issues, including how to study effectively and how to deal with exam-related stress. Services are free and confidential. Their web site is <http://www.studentaffairs.buffalo.edu/shs/ccenter/>

Distractions in the Classroom - Behavioral Expectations

The following is the text of a policy adopted by the Faculty Senate. You are expected to know and adhere to this policy.

OBSTRUCTION OR DISRUPTION IN THE CLASSROOM - POLICIES UNIVERSITY AT BUFFALO

To prevent and respond to distracting behavior faculty should clarify standards for the conduct of class, either in the syllabus, or by referencing the expectations cited in the Student Conduct Regulations.

Classroom "etiquette" expectations should include:

- Attending classes and paying attention. Do not ask an instructor in class to go over material you missed by skipping a class or not concentrating.
- Not coming to class late or leaving early. If you must enter a class late, do so quietly and do not disrupt the class by walking between the class and the instructor. Do not leave class unless it is an absolute necessity.
- Not talking with other classmates while the instructor or another student is speaking.
- If you have a question or a comment, please raise your hand, rather than starting a conversation about it with your neighbor.
- Showing respect and concern for others by not monopolizing class discussion. Allow others time to give their input and ask questions. Do not stray from the topic of class discussion.
- ~~○ Not eating and drinking during class time.~~
- Turning off the electronics: cell phones, pagers, and beeper watches.
- Avoiding audible and visible signs of restlessness. These are both rude and disruptive to the rest of the class.
- Focusing on class material during class time. Sleeping, talking to others, doing work for another class, reading the newspaper, checking email, and exploring the internet are unacceptable and can be disruptive.
- Not packing bookbags or backpacks to leave until the instructor has dismissed class.

Academic Integrity

Source: [http://www.cse.buffalo.edu/academics-academic integrity.shtml](http://www.cse.buffalo.edu/academics-academic%20integrity.shtml)

The academic degrees and the research findings produced by our Department are worth no more than the integrity of the process by which they are gained. If we do not maintain reliably high standards of ethics and integrity in our work and our relationships, we have nothing of value to offer one another or to offer the larger community outside this Department, whether potential employers or fellow scholars.

For this reason, the principles of Academic Integrity have priority over every other consideration in every aspect of our departmental life, and we will defend these principles vigorously. It is essential that every student be fully aware of these principles, what the procedures are by which possible violations are investigated and adjudicated, and what the punishments for these violations are. Wherever they are suspected, potential violations will be investigated and determinations of fact sought. In short, breaches of Academic Integrity will not be tolerated.

Departmental Statement on Academic Integrity in Coding Assignments and Projects

The following statement further describes the specific application of these general principles to a common context in the CSE Department environment, the production of source code for project and homework assignments. It should be thoroughly understood before undertaking any cooperative activities or using any other sources in such contexts.

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.

These policies and interpretations may be augmented by individual instructors for their courses. Always check the handouts and web pages of your course and section for additional guidelines.

Departmental and Course Policy on Violations of Academic Integrity

If, after following the procedures required by the University for investigation of suspected breaches of academic integrity, a student is found guilty, the policy of the department of Computer Science & Engineering is that the student minimally receive a grade of F in the course.