CS 1180 - Computer Science I
Fall 2015

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The names, office hours, and email addresses for the course TAs may be found on the CS1180L web site.

Course description: Basic concepts of programming and programming languages are introduced. Emphasis is on problem solving and object oriented programming. This course provides a general introduction to the fundamentals of computer science and programming. Examples from and applications to a broad range of problems are given. No prior knowledge of programming is assumed. The concepts covered will be applied to the Java programming language. Students must register for both lecture and one laboratory section. 4 credit hours. This is an integrated writing course.

Learning outcomes:

- Fluency in a programming language
- Competency in the object-oriented paradigm
- Competency in the event-driven programing paradigm
- Ability to communicate effectively in a programming language with a focus on style towards developing increasingly self-documenting high-level code

Additional learning outcomes for the Integrated Writing component of the course:

- Demonstrates their understanding of course content,
- Is appropriate for the audience and purpose of a particular writing task,
- Demonstrates the degree of mastery of disciplinary writing conventions appropriate to good program style and documentation, and
- Shows competency in standard edited American English.

Textbook: Introduction to Java Programming, Brief 10th edition, Y. Daniel Liang, Prentice Hall – Pearson. ISBN 978-0-13-359220-7

Textbook Web Resources: See http://www.pearsonhighered.com/liang/ for answers to review questions, solutions to even-numbered programming exercises, VideoNotes, bonus Web Chapters source code for the book examples, self tests, errata, etc.

Software: This course uses the Java programming language and the NetBeans IDE. If you would like the convenience of working on coursework from home, you will need to install this software. **To install on a home PC**: Download the latest version of Java and NetBeans at this site: http://www.oracle.com/technetwork/java/javase/downloads/index.html. Click on the NetBeans icon labeled "NetBeans with JDK 8"; then choose **Windows x64 jdk-8u60-nb-8_0_2-windows-x64-ml.exe** download. Click on "Save" to begin the download. Once it has downloaded, double-click the file icon to install. (Note: if this doesn't install correctly, verify that you have a 64-bit operating system. To do this, choose "Computer" from the start menu, then choose "System Properties." If you do NOT have 64-bit listed, try the Windows jdk-8u51-nb-8-windows-i586-ml.**exe** download.**) To install on a Mac**: Java is pre-installed on Macs so you need to install NetBeans only. From http://netbeans.org click the "Download" button beneath the NetBeans IDE 8.0.2 logo, then choose the "Java SE" download.

Pilot/campus email: http://pilot.wright.edu. Two Pilot sites will be used in this course for submitting projects and for accessing course materials and grades. The site for this section (CS1180) will include lecture notes, sample code, quizzes and exam information, and grades (although lab and project grades may not be updated there until the end of the semester). A common CS1180L site will be used for all information pertaining to labs and projects (requirements, submission dropboxes, and grades). It is the student's responsibility to check both Pilot sites, as well as his/her WSU email, for course announcements, updates to project requirements, etc.

Lab Facilities: Open labs are available for your use in the Russ Engineering Center (rooms 152B and 152D). Russ labs are open 24/7 and you should have swipe-card access to the front and back entrances of Russ. Although you may find it convenient to work at home, make a note of these lab locations in the event that you have a problem with your personal computer (hard drive crash, inability to print, no internet connection, etc.). Because lab facilities are so widely available at Wright State**, personal computer issues are not an acceptable excuse for turning in late work.**

Help Room: The Department of Computer Science and Engineering maintains a help room, staffed by upper-level students, for students in introductory programming classes. The help room is located in Russ 314. Help room hours are posted on the door of Russ 314 and are also available on the course web site.

Students with disabilities: Any student with a disability must inform the instructor of the special accommodations needed as soon as possible. The Office of Disability Services can provide an evaluation to determine what accommodations are appropriate. It is the student's responsibility to make the necessary arrangements with the instructor and/or ODS regarding test scheduling, note taking, etc.

Format of this course

This course is managed in the SCALE-UP format (Student-Centered Active Learning Environment with Upside-down Pedagogies). Research has shown this to be a very effective teaching methodology, with better understanding and retention than the traditional lecture-only format. The SCALE-UP format requires students to be actively involved in their learning, both before, during, and after class. To that end, **students must prepare for class by completing the following activities each week:**

- Read/view the relevant chapters of the textbook before each lecture (check the course schedule on Pilot for the topic and chapter)
- View the video lectures for the current module. These lectures may be found on a separate Pilot site, CS-1180 Videos, in the Continuous_Year section of Pilot.
- Complete the on-line quiz (available from 3:30 pm Friday through 1:00 pm Monday)

Lecture sessions will typically follow this format:

- Complete a hands-on activity at the beginning of class
- Participate in a discussion after the activity
- Complete a second activity after the discussion
- A short exam will be given each Friday during the semester.

Group work: Students will be working in groups of 3 during the lecture session. All students are expected to be respectful, responsible members of their group by being on time, being prepared, and participating fully (but equally) in the work of the group.

Assignments and Grading Policies

Attendance: Due to the fast pace of this course, attendance in both lecture and lab is very important. A graded activity will be given during most lecture periods. Makeup work will not be accepted; however, the three lowest activity grades will be dropped before calculation of your final course grade. When attending class, students are expected to be attentive and to fully participate. Students who are being disruptive or who are engaged in activities unrelated to the class discussion or activity may be asked to leave the room, and will be given a 0 for that day's activity grade.

Online quizzes: On-line quizzes will be given each weekend, covering the material to be discussed in the following week's lectures. Access is through the course website beginning at 3:30 pm Friday and ending at 11:00 am the following Monday. The quizzes are open book and open note, and have a 30-minute time limit. Two attempts for each quiz are allowed; only the highest score among the two attempts will be used in your course grade calculation. **There is no make-up work allowed for online quizzes, and all quizzes will be factored into your final course grade**.

Weekly exams: A 30-minute exam will be given at the end of class every Friday during the semester (starting the second week), with questions covering the topics from the previous week's lecture. These exams will be closed-book, closed-note, no computer. **Make-up of weekly exams is NOT allowed**; however, the lowest exam score will be dropped before calculation of your final course grade.

Homework projects: A total of 6 projects (7 for section 01-HON) will be required during the semester. Specific requirements and deadlines will be found on the CS1180L Pilot site. The additional honors project will be due the last week of November. Requirements for that project will be posted on the lecture web site by mid-October.

CS1180L (Computer Science I Lab): Lab work is an important component of this course. Your lab section will be led by a GTA, and all questions regarding weekly lab work should be addressed to this TA. The information on the following page will also be discussed in your lab section (CS1180L). You are expected to monitor the CS1180L Pilot site for news and updates regarding lab and project work. The policies and information on the next page are provided here for your convenience and will also be discussed in your lab section.

Final Exam: A comprehensive final exam will be given during the last week of the semester. With the exception of one 8½" x 11" paper (handwritten or printed, both sides ok), the exam is closed book, closed notes, no computer.

Grading: The course grade will be calculated by weighting the various graded components of the course as given below. The grading scale is [90-100] A; [80-90) B; [70-80) C; [60-69) D; [0-60) F.

Pre-lecture (weekend) quizzes: 2%
In-class activities: 4%
Laboratory assignments: 15%
Programming projects: 35% (equally distributed among the 6 projects)
Weekly exams: 24%
Final exam: 20%

Academic Misconduct: The university policy on academic misconduct will be followed in cases where academic dishonesty is suspected. This policy can be found at http://www.wright.edu/students/judicial/integrity.html

Lab and Project Assignments: Lab assignments and project requirements will be found on the Pilot1180L site, and students will need to use the dropboxes on that sites for submission of their work. All programs must have commenting and met other specifications as described in the Style Requirements document on Pilot. Laboratory assignments are subject to changes specified by the TA during the laboratory period. All students are required to attend their scheduled laboratory each week. All lab and project assignments must compile to receive credit. Programs that do not compile will not be graded. **No points will be awarded for laboratory assignments that are turned in late.** However, projects 1-5 may be submitted up to 3 days (72 hours from the due date/time) with a 10% deduction in points for every 24-hour period. Projects not turned in within 72 hours of the due date/time will not be graded. Late work on project 6 will not be accepted. Begin your projects immediately to guarantee that you have time to get help if necessary and complete them on-time. Deadlines will only be extended for documented emergencies or pre-arranged special needs. Poor time management, corrupt files, or personal computer issues will not be considered a sufficient excuse to extend this deadline. Important note: computers go down, networks fail, and data gets destroyed on the day that a project is due. Plan ahead. Back up your work.

Missed Lab Period: If a lab session is not held for whatever reason the work assigned for that lab session is still due at the original due date/time. This is true when labs are missed because of weather, holidays, etc.

Integrated Writing: This course is part of Wright States Integrated Writing Curriculum. You will see that all lab and project submissions require documentation which is worth up to 20% of the total lab or project grade. This is done so that Wright State students will be able to produce writing that:
(1) Demonstrates their understanding of course content,
(2) Is appropriate for the audience and purpose of a particular writing task,
(3) Demonstrates the degree of mastery of disciplinary writing conventions appropriate to good program style and documentation, and
(4) Shows competency in standard edited American English.

Academic Misconduct: **All work must be your own; sharing of laboratory assignment programs or project code will result in a grade of 0 for all those involved.** The university policy on academic misconduct will be followed in cases where academic dishonesty is suspected.

What IS allowed: Students are allowed to discuss the general requirements of lab assignments to make certain that they understand the problem and its goal. Students are allowed to ask another student (who has completed the assignment) for (brief) help with a syntax error or other minor problem that does not require extensive exploration of the solution. If another student asks you for help debugging AFTER you have finished the lab assignment, then you may help them briefly, but you may NOT show them your solution. Students may go to their TA, the CS help room, or the instructor for more detailed help. If you work with other students in an allowed manner, you are required to acknowledge the collaboration and its extent in the lab assignment's comments. This will allow the instructor to comment on and correct the degree of collaboration if necessary. Unacknowledged collaboration will be considered a violation of course policy.

What IS NOT allowed: Students may NOT discuss, look at, or debug other student's projects. Help on projects should come only from the course instructor, the lab Teaching Assistant(TA)/Helper, or the CS help room. Unless directed to do so, students may NOT work together on lab assignments - students can discuss the lab and/or provide certain help with debugging (see above) but may NOT work together for any extended period of time. Students may NOT use code created by other students or during previous offerings of the course. Students may NOT look at code created by another student (even to debug) until after they have completed the entire lab/project assignment themselves. Students

absolutely may NOT turn in someone else's solution with simple cosmetic changes to the solution -- this is a gross break of academic integrity and will result in a failing grade for the course. *You are responsible for ensuring that other students do not have access to your work* - do not give another student access to your files, do not leave printouts in the recycling bin or printer, do not leave your workstation unattended, etc. If you suspect that your work has been compromised notify your instructor immediately.