CSS 162 – Programming Methodology (Summer 2012)

In this course, you will transition from a focus on basic programming skills to applying those skills to solve problems. You will do this by learning to think of *software development* as a rigorous process, in which the actual programming is one of the smallest parts. You will be introduced to higher-level problem solving approaches, such as recursion and generic programming, and larger-scale organization and algorithms, like object orientation, lists, stacks, queues, searching, and sorting. You will gain familiarity with software development techniques, such as the importance of thinking about specifications, design, and testing before coding and the utility of incremental development in an exploratory environment. You will also develop an understanding of the mathematical nature of software development by examining the relationship algorithms, programs, and the underlying theory, including logic, sets, functions, number bases.

Instructor	Uma Murthy umurthy1@uw.edu (Use "**CSS162 summer 2012**" in subject) Location: UW1-360E Office hours: Tuesdays 4-5pm, Wednesdays 4-5pm, or by appointment
Class meetings	Mondays and Wednesday, 5:45 – 7:45PM Room UW1-110
Laboratories	Tuesdays, 5:45 – 7:45PM Room UW1-121
Course web	http://courses.washington.edu/css162/umurthy/

Required textbooks

- Walter Savitch, *Absolute Java*, 4th edition (or later), Addison-Wesley, 2007.
- M. David Ermann and Michele S. Shauf, *Computers, Ethics, and Society*, 3rd edition, Oxford University Press, 2003.

Grading

Your grade will be composed of your performance on tests and homeworks, plus your classroom contributions as measured by lab reports and other in-class activities.

Your course average will be computed as:

Homeworks (6 – 8)	25%
Mid-term exam 1	15%
Mid-term exam 2	20%
Final exam (1)	25%
Class and lab participation and contributions (attendance, class participation, quizzes, and lab reports)	15%

I will compute everyone's quarter average based on the formula above. Decimal grades will be computed using the equivalences in the *UW Catalog*[1], linearly interpolating between letter-grade boundaries. A shorthand summary of the qualitative meaning of letter grades is:

A	Complete or near-complete mastery of all course subject matter. Participation in all or almost all labs.
B	Substantial mastery of most course material. Participation in all or almost all labs.
C (above 2.0)	To receive a decimal grade of 2.0 or above, you must have demonstrated sufficient mastery of the course material. It may be that your test and homework performance indicates better than 'C'-level work, but that you have chosen not to participate in labs. Such work habits are also suggestive of future success.

Note that a grade of 2.5 in this class is a prerequisite for CSS342

HOMEWORKS

There will be 6-8 homeworks in the class. Each homework will generally constitute a program and a written component. Generally, each program will be worth 100 points and each written component will be worth around 25–30 points. A specific homework might have a different number of points (and thus a different weight). Programming assignments will be graded following a grading strategy[2] based on previous quarters.

Homework submission

Assignments will be turned in using Catalyst. The submission site will close promptly at the start of class. Late assignments will not be accepted and will be graded as zero. Extensions will not be given, unless something catastrophic occurs. These events should be discussed with me ahead of time, except in the case of an emergency (which should be well documented). You are welcome to turn in assignments early.

Remedial homeworks

Remedial homeworks are for those who have seriously attempted all questions (as judged by me) in a homework (referred to as the *main homework*), but have performed poorly in it, and want to improve their score. The better grade between the main and the remedial homework will be considered in the final course grade. The point of a remedial homework is for a student to learn from their errors and improve their skills and performance. I would caution you against making this a habit as a remedial homework will take away time from subsequent homework (which may result in poor performance). Remedial homeworks will be offered for 2-3 main homeworks in this class.

EXAMS

There will be two mid-term exams and one final exam in this course. Make-up exams will not be given in this class, unless something catastrophic occurs. These events should be discussed with me ahead of time, except in the case of an emergency (which should be well documented).

ATTENDANCE AND PARTICIPATION

A percentage of the course grade comes from class participation, which can be summarized as the constructive involvement of a student during class. Attendance is strongly encouraged at all lectures, and this class's policy is the same as the attendance policy outlined in the UWB handbook. Usually, each class meeting contains information, handouts, assignments, quizzes, etc. which are critical to the

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[1] http://www.washington.edu/students/gencat/front/Grading_Sys.html
[2] http://courses.washington.edu/css162/umurthy/Strategy.htm

success of a student in CSS 162. If a student misses a lecture, it is recommended that he/she talk to a fellow student who was present for the class. Individuals will not receive extracurricular tutoring due to missed class; but of course, all students are welcome to visit with me during office hours with questions about the material. It has been proven in previous CSS courses that students who do not attend class do not succeed nearly as easily or frequently as those who do.

Laboratory reports (may be done in teams of two) will be graded pass/fail. Labs give students a chance to revise concepts, practice programming skills, and clarify doubts in a working environment. Hence, it is important for students to attend lab sessions for success in this class.

COURTESY AND TECHNOLOGY

If you happen to be late to class, please be minimally disruptive while taking your seat, preferably at the back of the classroom. Please check with your classmates for missed announcements.

Snacking is permitted; however, please be courteous to everyone by avoiding crackling cellophane, and crunchy and odorous foods. Also please clean up after yourself. If you choose to snack in class, please sit at the back of the classroom.

We'll use technology in this class only to facilitate the learning outcomes stated in the outline and this syllabus. Thus, cell phones and pagers should be disabled, and the using of a laptop (or the terminal in front of you) should not distract anyone from what the class is currently working on (or should be disabled). You may type notes in class, but please do not use technology to distract you from learning (i.e., no cell phones, email, IM, web surfing, games, etc.). Conversations should be kept to a minimum as a courtesy to other students that are trying to learn.

COMMUNICATION AND COLLABORATION

Students are encouraged to work with each other in the following situations:

a) understanding lecture material and related readings (e.g., via discussions on the online discussion forum);
b) clarifying problem statements on assignments – after each student has given independent thought to options;
c) working on practice problems and studying for tests; and
d) lab work – may be completed in teams of two.

Actual submitted material – solutions to homework problems, programming assignments and associated documentation – must be written individually by the student.

If at any point you feel uncertain about whether collaboration in a particular situation is allowed, please ask me.

Expect upto 24 hrs to receive a response from me to your emails.

ACADEMIC CONDUCT

The labs are the only work items that can be completed by teams of two in this course.

Aassignments and exams are designed to be completed independently, and all student handbook guidelines with regards to plagiarism apply to any student's work here. Written or other work, which a you submit, must be the product of your own efforts. Plagiarism, cheating and other forms of academic dishonesty, including dishonesty involving computer technology, are prohibited. Please be careful to follow UWB policies on academic and behavioral conduct[3]. Each student should submit their own work without cloning it from another existing work, whether found online or in the

[3] http://www.uwb.edu/policies

classroom. Violations of the student code of conduct will result in a zero score for that work. See the course website for a link to the full student conduct code.

Problems

If you have problems with anything in the course, please come and see me during office hours, or send email. I want you to succeed in this course. If you have trouble with the assignments, see me before they are due.

Miscellaneous hints and "rules"

The following is a brief summary of the most important things you can do to succeed in this class:

You are responsible for making back-up copies of your work. Disk crashes, etc. are not acceptable reasons for extensions of assignment due dates. Note that your Windows file server directory and Linux and C&C home directories are professionally backed up.

Assignments are due when specified. Barring illness or similar extenuating circumstances, please do not attempt to submit amendments, bug fixes, or forgotten material after the fact.

Attendance in all classes is strongly encouraged. It is assumed that you are cognizant of everything that is covered in class, including clarifications of programming assignments, changes in due dates, etc. Material covered in class is fair game for assignments and tests, regardless of its absence from the textbooks.

I will use email to communicate with you. It is your responsibility to ensure that email to your UW account reaches and is read by you. Note that the UW course listserve will only accept messages from addresses that are on the official list. So, if you forward your UW email, you will still need to send email messages to the listserve from your UW account.

Academic accommodations

If you believe that you have a disability and would like academic accommodations, please contact Disability Support Services at 425.352.5307 or dss@uwb.edu.

Incompletes

University rules state that "an incomplete is given only when the student has been in attendance and has done satisfactory work until within two weeks at the end of the quarter and has furnished proof satisfactory to the instructor that the work cannot be completed because of illness or other circumstances beyond the student's control."

Course schedule (subject to change)

Please refer to the class website for the updated schedule.