Fall 2009

CS 241: Computer Science II

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Wright State University

College of Engineering and Computer Science
Department of Computer Science and Engineering

Computer Programming II

CS 241

Fall Quarter, 2009

Professor: Travis E. Doom, Ph.D.
Professor's Office: 331 Russ Engineering Center
Office Hours: 3:35-4:45 TR Other office hours by appointment (via email).
Email: (Preferred contact) travis.doom@wright.edu
Office Phone: (937) 775-5105

Room & Time:
Section 01: 11:00 - 12:00 M W F 402 Millet Hall

Course Description:
A continuation of CS240. The emphasis is on data abstraction and software engineering.
Prerequisite. CS240.

If you have a copy of another Java text (such as the Gaddis text previously used in prerequisite courses), then you may certainly use that text. In this case, you will be expected to find the appropriate reading material for each lecture section.
It is neither possible, nor desirable, to discuss every nuance of the material covered in this course during our limited class time. Students should be aware that although we will discuss the most important materials in class, the textbook contains important facts that may not be discussed in class. Students should not only be able to discuss course concepts in detail, but they should also be able to demonstrate their mastery by applying these concepts on examinations to related problems with which they have no previous experience.

Grading: A student's demonstration of their ability to discuss issues, solve problems, and demonstrate mastery of programming and introductory computer science will be the underlying metric for the determination of a student's overall grade in this course. Students will be provided the opportunity to demonstrate their mastery through examinations, weekly laboratory assignments, and several programming projects. The overall course grade will be determined as follows:

Programming projects 400 pts. [4 @ 100 pts.]
Laboratory assignments 160 pts. [8 @ 20 pts.]
# Computer Programming II

## CS 241

Fall Quarter, 2009

## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC / ACTIVITY</th>
<th>HOMEWORK ASSIGNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Course introduction and review of programming fundamentals</td>
<td>Review: Liang, Ch 1-6,8; No labs this week!</td>
</tr>
<tr>
<td>Week 2</td>
<td>Introduction to objects: semantics, syntax, and style</td>
<td>Read: Liang, Ch 7, 9; Project 1 assigned.</td>
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<tr>
<td>Week 3</td>
<td>Object-oriented software construction</td>
<td>Read: Liang, Ch 7, 9, 12.</td>
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<tr>
<td>Week 4</td>
<td>Inheritance and polymorphism</td>
<td>Read: Liang, Ch 10; Project 2 assigned.</td>
</tr>
<tr>
<td>Week 5</td>
<td>The object contract: abstract classes, interfaces, and multiple inheritance; Introduction to graphics</td>
<td>Read: Liang, Ch 11.</td>
</tr>
<tr>
<td>Week 6</td>
<td>Event driven programming</td>
<td>Read: Liang, Ch 13-15; Project 3 assigned.</td>
</tr>
<tr>
<td>F 10/16</td>
<td>Midterm examination, includes Labs 1-4, Projects 1-2</td>
<td>Know: Liang, Ch 1-11.</td>
</tr>
<tr>
<td>Week 7</td>
<td>Event driven programming; Objects and memory</td>
<td>Read: Liang, Ch 13-15</td>
</tr>
<tr>
<td>Week 8</td>
<td>Recursion, exceptions, and binary I/O</td>
<td>Read: Liang, Ch 18, 19, 20.</td>
</tr>
<tr>
<td>Week 9</td>
<td>Threads, concurrency, and unit testing</td>
<td>Read: lecture notes; Project 4 assigned.</td>
</tr>
<tr>
<td>Week 10</td>
<td>Recitation, demos, evaluation and review</td>
<td>No in-lab this week; Study/prepare questions. No class on Veteran's Day (Nov 11).</td>
</tr>
<tr>
<td>F 11/20</td>
<td>Final examination</td>
<td>10:45-12:45; regularly scheduled classroom</td>
</tr>
</tbody>
</table>

This page was last modified on Monday, 31-Aug-2009 13:40:36 EDT. Assignments prior to this date should be accurate. Assignments listed after this date are *projections* and may not correspond to the actual material and assignments presented in class.

The most recent version of this document is available on the world wide web via: [http://www.wright.edu/~travis.doom/courses/CS241](http://www.wright.edu/~travis.doom/courses/CS241)

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Last modified: 08/31/09

[http://www.wright.edu/~travis.doom/courses/CS241/current/schedule.html](http://www.wright.edu/~travis.doom/courses/CS241/current/schedule.html)
Mid-term examination 200 pts.
Final examination 300 pts.
TOTAL 1060 pts.

Grades will be assigned on a standard A/90%, B/80%, C/70%, D/60%, F/60%- scale. Clustering of grades may cause the thresholds to be lowered; they will not be raised. The instructor reserves the right to fail any student who does not attain both an overall passing grade (70%+) in the programming projects.

Programming Projects and Laboratory Assignments The instructor will provide a number of opportunities for students to develop their mastery of the subject throughout the course through graded assignments. 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. Assignments must compile to receive credit. Programs that do not compile will not be graded. All programs must have comments at the top that identify the student, the course, and the project type/number. Points will be deducted for projects submitted late. The deduction will be 10% of the total possible points per 24 hours (or portion thereof) elapsed from the moment that the project was due. No points will be awarded for projects that are more than one week late. 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 network outages will not be considered a sufficient excuse to extend this deadline. Important note: computers go down, networks fail, and data gets destroyed. Plan ahead. Back up your work. Start early!

Examinations: Examinations will occur at the normally scheduled class time and location unless announced otherwise in class. The final examination is cumulative and will take place during the university scheduled time period in the normally scheduled class location unless announced otherwise in class. Students may use one (two-sided) 8.5"x11" page of hand-written notes on the examinations.

Academic Integrity: Student-teacher relationships are built on trust. For example, students must trust that teachers have made appropriate decisions about the structure and content of the courses that they teach, and teachers must trust that the assignments which students turn in are their own. Acts which undermine this trust undermine the educational process. It is the policy of Wright State University to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth. Furthermore, it is the policy of the university to enforce these standards. The following recommendations are made for students:

1. Be honest at all times.
2. Act fairly towards others. For example, do not seek an unfair advantage over others by cheating with or by looking at other individual’s work during examinations or laboratory assignments.
3. Take group as well as individual responsibility for honorable behavior. Collectively, as well as individually, make every effort to prevent and avoid academic misconduct, and reports acts of misconduct that you witness.
4. Know the policy -- ignorance is no defense. Read the policy contained in the student handbook. If you have any questions regarding academic misconduct, contact your instructor.

Students are encouraged to get together in small study groups to discuss the course topics and ungraded homework problems. However, students must work on all graded course assignments and examinations on an individual basis.

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 student 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 and the CS helproom. 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 assignment themselves. Students absolutely may NOT turn in someone else's solution with simple cosmetic changes (say, changed variable names) 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.

Conduct for Examinations: The academic code demands that no student should have an unfair advantage over any other student during examinations. Thus, it is strictly forbidden for any student to refer to information from previous offerings of this course unless this information is provided by the instructor to all students fairly. Thus, the use of test banks of previous quizzes or asking questions about examinations or laboratory assignments to prior students is strictly forbidden.

Absences: Class attendance will not be a direct factor in your grade but will strongly effect the quality of your education. Students who miss class are responsible for the material or announcements presented. Any extenuating circumstances which impact on your participation in the course should be discussed with your instructor as soon as those circumstances are known. Make-ups for examinations may be arranged ONLY if a student's absence is caused by documented illness or documented personal emergency. It is the student's responsibility to provide a written explanation (including supporting evidence) to the instructor in a timely manner. Students registering after the term begins are responsible for all missed assignments and cannot expect that due dates will be altered. If you miss a lecture or plan to miss a lecture, you may be able to make arrangements to sit in on the same lecture in another concurrent offering of the course.

Additional Information: Copies of the transparencies used in lecture and additional course-related information will be made available via course web page.

Additional Needs: Students with disabilities or any additional needs are encouraged to set up an appointment at their convenience to discuss any classroom accommodations that may be necessary.