General Information

Class Time: Tuesday and Thursday 10:30am - 11:45pm
Class Location: Dale Hall, 0206
Prerequisites: C S 3053 and C S 4263 and CS major or CS minor

Instructor and Office Hours:

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Hours</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rafał Jabrzemski</td>
<td>DEH 235</td>
<td>Wednesday 2:30-4:00</td>
<td><a href="mailto:rjabrzemski@ou.edu">rjabrzemski@ou.edu</a></td>
</tr>
<tr>
<td></td>
<td>DEH 235</td>
<td>Thursday 4:30-6:00</td>
<td></td>
</tr>
</tbody>
</table>

Important Dates

First Day of Class: January 16
Final Exam: May 10, 2018, 8:00-10:00am, Dale Hall, 0211
Spring Break: March 19 - 23

1.1 Ownership of Course Materials

The instructor retains ownership and all rights to original content. This includes but is not limited to exams, lectures, quizzes, handouts, protocols, electronic documents, syllabi, and all other materials. Original or transcribed course content may not be copied, recorded, retransmitted, posted on-line, or sold without the expressed written consent of the instructor. Violation of content ownership will be treated as academic misconduct.

Course Description

This course introduces the theory and practice of software engineering, with a focus on planning and design processes. Topics include methods and tools for software specification, design, and documentation, software development processes, professional ethics, responsibility, and liability in the software lifecycle. You will learn about current software engineering practices and tools, and complete team projects in the process. Interaction with project sponsors from industry, government, and academia will provide realistic experience with software engineering from a professional perspective.

2.1 ABET Student Outcomes

The general learning objectives for this course include the following ABET Outcomes:

A: An ability to apply knowledge of mathematics, science, and engineering.
C: An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired standards.
D: An ability to function effectively on teams to accomplish a common goal.
E: An understanding of professional and ethical issues and responsibilities.
F: An ability to communicate effectively with a range of audiences.
G: An ability to analyze the local and global impact of computing on individuals, organizations and society.
H: Demonstrate a recognition of the need for and an ability to engage in continuing professional development.
I: An ability to use the techniques, skills, and modern engineering tools necessary for engineering.
J: An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
K: An ability to apply design and development principles in the construction of software systems of varying complexity.

The primary key to this course is its practicality and direct relationship to the types of things you will be doing in the real world. The goal is to have you equipped with a broad set of tools and ideas that will prepare you for real world software engineering.

Course Expectations and Policies

3.1 Class Home Page
This class will use Canvas software for our home page. The URL for the home page is https://canvas.ou.edu. Login with your 4+4 using your standard OU password. If you have difficulty logging in, call 325-HELP. This software provides a number of useful features, including a list of assignments and announcements, an electronic mailing list, newsgroups, and grade book. I will use this web site for all updates. I may update the Canvas page several times a week. When I update the site in any significant way, I will post an announcement on Canvas telling you what has been added and where it is located. You are responsible for things posted on the site within 48 hours of the post.

Note that you can configure Canvas to send you email whenever a new piece of information is posted. You should check the site regularly.

3.2 Class Attendance
You are expected to attend all of the lectures in which you are enrolled. Class attendance is important because we will discuss/clarify concepts. You are responsible for everything that is announced in class, independent of whether you choose to attend or not.

3.3 Class Email
Urgent announcements will be sent through Canvas email. It is your responsibility to:

- Regular read your university supplied e-mail or have it forwarded to a location where you do regularly read e-mail. I will send out a test message during the first week of class. If you do not receive this message, it is your responsibility to get the problem resolved.

- Have your email program set up so that replying to your email will work correctly. You can send email to yourself and reply to yourself to test this. If you need assistance in accomplishing any of these tasks, contact 325-HELP. You are responsible for reading emails within 24 hours.

Please put CS4273 as the first word in the subject line of your email.
Learning Activities and Assessment

4.1 Project Phases

Each phase of the group project will be worth 4 points of individual assessment and 6 points of scaled group assessment. The individual’s contribution will be assessed using 360 feedback forms and the group assessment will be assigned by the professor for the entire group and scaled for each individual based on their 360 feedback. This same pattern will be followed in the Final Panel presentation, with 10 points given for individual assessment and 15 points for scaled group assessment. For example, if a student earns a 50% on the 360 review on a phase where the group earns a 75% assessment of their project, that student will receive a total of 4.25 points for that phase. Here is how that math breaks down more specifically:

- Individual Work: 50% of 4 points = 2 points
- Group Assessment: 75% of 6 points = 4.5 points. Scaled by the Individual work (50%) = 2.25.
- Total Score: 4.25

4.2 Technology Presentation

There will be two opportunities to present technology used for the projects, and indicate possible advantages and challenges of particular technology choices.

4.3 Final Examination

There is no final examination.

4.4 Grading Questions

If there is a dispute about the grading of an homework problem, you may stay after class the day the tests are returned to discuss it. If you cannot stay at this time, return the paper to me and stop by during my office hours. Once a homework has been removed from the classroom after it has been returned, the grade is final and will not be changed, even if it is found to be in error.

- Homeworks: Grading questions for projects/labs that are graded by the TA should first be brought to the same TA. If this does not resolve your question, please see the instructor.
- Others: All other grading questions may be brought to the instructor.
- Please note that when an homework is brought with grading questions, we may examine the entire exam/assignment and your final grade may end up lower. All disagreements about scores must be brought to our attention within one week of when the item is returned.

4.5 Final Grade

The course grade will be determined by the average of the individual homeworks, and group projects. The final letter grading for the course will be as follows: A ≥ 90%, B = 89-80%, C = 79-70%, D = 69-60%, F = < 60%. The instructor will round all averages to two significant figures (69.5 will round to 70 and 69.4 will round to 69) to determine the student’s letter grade in the course (70 = C, 69 = D). There is no curve in this course. The instructor reserves the right to make linear adjustments to quiz and final exam grades in cases were a quiz or exam question was found to be in error or unreasonably difficult.
4.6 Canvas Grade Summary

Canvas has a grade book that is used to store the raw data that is used to calculate your course grade. It is the responsibility of each student in this class to check their grades on Canvas after each project or homework is returned. If an error is found, bring the grading document to me, and I will correct it.

4.7 Course Grade

There are 5 components to the course grade. They are weighted as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent of Final Grade</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeworks</td>
<td>56.6%</td>
<td>30%</td>
</tr>
<tr>
<td>Project Phases</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Status Reports</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Technology Presentation</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Final Panel</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Course Coverage and Procedures

5.1 Teamwork Issues

The workloads of teams are expected to be evenly distributed among the members. One will risk losing all or part of the project grade if he does not make a fair contribution.

5.2 Backup Copies of Projects

It is the student responsibility to backup their files appropriately. No extensions to deadlines will be given as a result of lost files, unless there is a massive, network wide problem that affects the entire class. Do not rely on anyone else to backup your important files. Configure OneDrive that is a part of your Office365 to make backing up your work a routine part of computer usage. It is particularly important to save a backup copy of any project that is submitted. This backup version should not be opened or edited after submission in case something goes wrong with the submission system.

Course Policies

6.1 Make-up Policy

Although the Instructor does not expect a student to miss an assignment, if a student does miss an assignment for a legitimate, verifiable reason, the Instructor will work with the student to provide an opportunity for make-up work.

6.2 Absences

Attending every lecture is highly recommended and expected. Not attending class will have an indirect negative effect on your grade. If low attendance to lectures becomes problematic, the instructor reserves the right to use attendance as extra-credit. There will not be assigned seating in the lecture, but students are expected to sit next to their study group partners to facilitate communication during problem solving sessions in class.
6.3 Civility

All students are expected to follow proper classroom behavior and treat other students and the instructor with respect. If the instructor deems a student’s actions or behavior disruptive to the class, the students will be asked to leave the class for that day.

6.4 Emergency Contact

In case of family or medical emergencies, students should send an e-mail (rjabrzemski@ou.edu). Once the emergency has passed, the student can meet with the instructor to discuss what material/assignments the student has missed and what steps would be beneficial to aid the student in continued success in the course.

6.5 Changes in the Syllabus

As the course develops, it might be desirable/necessary to make appropriate changes in aspects of this syllabus. The Instructor reserves the right to make changes if desirable or necessary.

University Policies

7.1 Academic Misconduct

All work submitted for an individual grade, such as quizzes, should be the work of that single individual: not their friends or tutor. **Please ask me if you are in doubt before you collaborate with others. You have to work individually unless it is stated that a collaboration is allowed.**

- Do not show another student a copy of your homework or individual projects before the submission deadline. The penalties for permitting your work to be copied are the same as the penalties for copying someone else’s work.

- If you choose to do your work on your computer, make sure that your computer account is properly protected. Use a good password, and do not give your friends access to your account or your computer system. Do not leave printouts, or thumb drives around a laboratory where others might access them.

- Upon the first documented occurrence of collaborative work, I will report the academic misconduct to the Campus Judicial Coordinator. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code (http://integrity.ou.edu/summary_of_the_process.html). In the unlikely event that I elect to admonish the student, the appeals process is described in http://www.ou.edu/provost/integrity-rights/.

- If you work with anyone else in completing an assignment, you must include that person’s name on the submitted work. Failure to list a student you worked with on the assignment is a violation of academic integrity. If I find that the submitted work appears to be plagiarized, all students involved will be invited to my office individually to explain the work and/or perform similar work. The instructor will determine whether plagiarism occurred based on the match between the depth of understanding of the material displayed in the assignment and the individual interviews. (See http://integrity.ou.edu/faculty_guide.html)

- For Top-Hat, it is considered cheating to submit answers to quiz questions when you are not present in class.

- Programming projects will be checked by software designed to detect collaboration. This software is extremely effective and has withstood repeated reviews by the campus judicial processes.
Tutors can be an excellent source of support for students who are having difficulty in the class, but only if the tutor is aware of the distinction between teaching students the material so that they can do their own work, and doing work for students. Tutors who do work for students are not only failing to help the students learn, they are abetting academic misconduct. Examples of misconduct include: If your tutor is sitting behind you while you are typing and methodically telling you what to enter, he or she is abetting academic misconduct. If you tutor is emailing files containing partial or complete programming projects to you, you will commit academic misconduct if you use those lines in your program. A more effective use of tutoring services is to do problems that are similar to the assigned work, instead of doing assigned work. For example, it would be fine to work unassigned problems from the textbook with a tutor. This requires significant discipline, both on the part of the tutor and the part of the student. Copying from a tutor is as unacceptable as copying from another student. If your tutor doesn’t know how to teach properly, please ask them to call or visit me and I will provide training and guidance. If you are tutoring someone else in the class, you can be accused of academic misconduct if this person copies your work.

Cheating is strictly prohibited at the University of Oklahoma, because it devalues the degree you are working hard to get. As a member of the OU community it is your responsibility to protect your educational investment by knowing and following the rules. For specific definitions on what constitutes cheating, review the Student’s Guide to Academic Integrity at http://integrity.ou.edu/students_guide.html. To be successful in this class, all work on exams and quizzes must be yours and yours alone. You may not receive outside help. On examinations and quizzes you will be informed about permissible study aids. Should you see someone else engaging in this behavior, I encourage you to report it to myself. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don’t cheat. It’s simply not worth it.

Feel free to discuss all assignments with the instructor or the TAs. However, do not discuss, look at, or copy another student’s solution to a Zyante, Top Hat or lab assignment. Doing so is considered cheating. For group projects, communication is expected between group members. However, communication about the solution to a project between groups is disallowed. Doing so is considered cheating.

You may make use of the net as a reference as you are working on assignments. For projects, these references must be explicitly documented in your code. However, downloading or deriving specific solutions from the net is considered cheating.

7.2 Code Sharing for Group Projects

If you are keeping your code on GitHub, you have to keep your code in private repositories.

7.3 Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty. [See Faculty Handbook 3.15.2 (https://apps.hr.ou.edu/FacultyHandbook#3.15.2 ).]

7.4 Reasonable Accommodation Policy

There is not specific language for the Reasonable Accommodation policy to be included in the syllabus. It is good to become familiar with the policy and describe it in your own words. Including the link to Disability Resources Center is encourage, http://www.ou.edu/drc/home.html . [See Faculty Handbook (https://apps.hr.ou.edu/FacultyHandbook#5.4 ).]
Students requiring academic accommodation should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information please see the Disability Resource Center website http://www.ou.edu/drc/home.html Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

7.5 Title IX Resources and Reporting Requirement

For any concerns regarding gender-based discrimination, sexual harassment, sexual assault, dating/domestic violence, or stalking, the University offers a variety of resources. To learn more or to report an incident, please contact the Sexual Misconduct Office at 405/325-2215 (8 to 5, M-F) or smo@ou.edu. Incidents can also be reported confidentially to OU Advocates at 405/615-0013 (phones are answered 24 hours a day, 7 days a week). Also, please be advised that a professor/GA/TA is required to report instances of sexual harassment, sexual assault, or discrimination to the Sexual Misconduct Office. Inquiries regarding non-discrimination policies may be directed to: Bobby J. Mason, University Equal Opportunity Officer and Title IX Coordinator at 405/325-3546 or bjm@ou.edu. For more information, visit http://www.ou.edu/eoo.html.

7.6 Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact your professor or the Disability Resource Center at 405/325-3852 as soon as possible. Also, see http://www.ou.edu/eoo/faqs/pregnancy-faqs.html for answers to commonly asked questions.

7.7 Final Exam Preparation Period

Pre-finals week will be defined as the seven calendar days before the first day of finals. Please refer to OU’s Final Exam Preparation Period policy (https://apps.hr.ou.edu/FacultyHandbook#4.10).