CS 411W Professional Workforce Development II (Fall 2020)

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1 Course Description

The Professional Workforce Development course sequence (CS 410 and CS 411W) expands upon the experimental and design approach of typical computer science curricula by addressing the creativity and productivity required for business and industrial applications. Students in this course sequence engage in projects that investigate each stage of transforming a creative idea into an innovative product.

Writing can comprise as much as 60% of a computer scientist’s professional activities. The evolution of software engineering into a team-centric process (possibly across geographic distances) requires the sharing of a wide variety of documentation with attention to version control and version management.

This course is the writing intensive (W) course for the major, which requires 51% or more of the computed grade be based upon writing assignments. You must demonstrate the ability to write clearly and accurately for a technically oriented audience. You will complete graded and ungraded writing exercises.

You will write professional and technical documents, and continue the development of the project defined in CS 410. Written work is reviewed and returned for corrective rewriting.

Students will design and develop a project prototype, and formally demonstrate the prototype.

2 Instructor Information

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Office</th>
<th>Phone #</th>
<th>Email</th>
<th>Home Page &amp; Office Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill Price</td>
<td>Dragas 1100A</td>
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<td><a href="mailto:price@cs.odu.edu">price@cs.odu.edu</a></td>
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</tr>
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</tr>
</tbody>
</table>
Instructor | Office | Phone # | Email | Home Page & Office Hours
---|---|---|---|---
Thomas J. Kennedy | Dragas 1100D | 757.683.7725 | tkennedy@cs.odu.edu | http://www.cs.odu.edu/~tkennedy

3 Readings

There is no required textbook. All readings will be provided through the course site.

4 Objectives

At the end of this course, students will be able to:

- Recognize the value of collaboration in the field of computer science.
- Plan and execute the development of a major software project.
- Identify the order in which tasks should be completed either in parallel or in sequence in completing large projects.
- Establish communication strategies to stay on task, complete team-based deliverables, and conduct effective team meetings asynchronously.
- Establish effective asynchronous and synchronous communications with faculty and industry mentors.
- Prepare collaborative outlines of the required written Assignments.
- Prepare quality written papers based upon the collaborative outlines.
- Document individual progress, challenges, concerns, and successes.
- Recognize the need for the four types of professional writing addressed in the course as professionals and academics.
- Utilize the assignments to develop high quality group projects.
- Recognize the value of prototyping in the development of software projects.

5 Grading

<table>
<thead>
<tr>
<th>Graded Element</th>
<th>Description</th>
<th>Weight</th>
<th>Individual/Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Exercises</td>
<td>Discussion Activities</td>
<td>5%</td>
<td>(Individual)</td>
</tr>
<tr>
<td>Writing - Lab I</td>
<td>Descriptive/Persuasive Paper</td>
<td>15%</td>
<td>(Individual)</td>
</tr>
<tr>
<td>Writing - Lab II</td>
<td>Prototype Product Specification</td>
<td>15%</td>
<td>(Individual/Group)</td>
</tr>
<tr>
<td>Writing - Lab III</td>
<td>Prototype Test Plan/Procedures</td>
<td>15%</td>
<td>(Individual/Group)</td>
</tr>
<tr>
<td>Writing - Lab IV</td>
<td>Product/Prototype User’s Manuals</td>
<td>15%</td>
<td>(Individual/Group)</td>
</tr>
<tr>
<td>Prototype Demo</td>
<td>Product Laboratory Prototype</td>
<td>30%</td>
<td>(Individual/Group)</td>
</tr>
<tr>
<td>Website</td>
<td>Product and Course Documents</td>
<td>5%</td>
<td>(Group)</td>
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</tbody>
</table>

6 Course Policies

6.1 Academic Honesty

This section is borrowed the CS 330 and CS 350 syllabi as written by Steven J. Zeil.

Everything turned in for grading in this course must be your own work. If an assignment is explicitly described as a team assignment, it must be the work of the team members only.
The instructor reserves the right to question a student orally or in writing and to use this evaluation of the student’s understanding of the assignment and of the submitted solution as evidence of cheating. Violations will be reported to the Honor Council for consideration for punitive action. By CS Dept. policy, students found to be in violation of this rule will, at the very least, receive a failing grade in the course and may be subject to stiffer penalties.

Use of Online Resources

You may not post details of course assignments, projects, or tests at online Forums, Bulletin Boards, Homework sites, etc., soliciting help.

You may use information that you have not solicited but have located, subject to the following restrictions:

- Just as when writing a paper, if you use someone else’s ideas, you must cite your sources appropriately. Within code, such citations appear in comments.

  Example:

  ```java
  :
  double x = 23.0;
  double xsqrt = sqrt(x);
  // Search algorithm based upon code by S Zeil at
  // https://www.cs.odu.edu/~zeil/cs361/latest/Public/functionAnalysis/index.html#orderedsequentialsearch
  int loc = 0;
  while (loc < arraySize && numbers[loc] < xsqrt)
  :;
  ```

- Just as when writing a paper, if you use someone else’s words (code), you must cite your sources appropriately and mark the quoted text. Within code, such citations appear in comments.

  Example:

  ```java
  :
  double x = 23.0;
  double xsqrt = sqrt(x);
  // Begin quoted code from S Zeil at
  // https://www.cs.odu.edu/~zeil/cs361/latest/Public/functionAnalysis/index.html#orderedsequentialsearch
  int loc = 0;
  while (loc < listLength && list[loc] < searchItem)
  {
      ++loc;
  }
  // End quoted code
  :
  ```

- Failure to appropriately cite any such “found code” will be taken as evidence of plagiarism.

- The overall principle stated in the first sentence of this section remains in effect. “Everything turned in for grading in this course must be your own work.” If the bulk of your assignment, code, paper, etc., are copied, even with appropriate citation, to the degree that, in the judgment of the instructor, you have not demonstrated your own knowledge of the course material, you will receive a zero for that exercise.

6.2 Attendance & Late Work

Because the class period is important and discussions cannot be reproduced, absences cannot be made up. Excessive absences may have a negative effect on a student’s learning and performance. Any student who must miss a class is expected to have the initiative necessary to properly cover the material missed (e.g., assignments given or modified, due dates established or modified, and handouts). Students must meet all course deadlines and be present for Prototype Demonstrations.
LATE WORK IS NOT ACCEPTABLE

6.3 Team Assignment (From CS 410 to CS 411W)

In CS 410 you were assigned to a team. Your team developed an idea and designed a Prototype. Barring specific conditions, you will remain with your team from CS 410.

You **will** be assigned to a new team if:

- It has been more than one semester since you completed CS 410.
- You are retaking CS 411W.

You **may** be assigned to a new team, at the **instructor’s discretion**, if you are unable to work with your CS 410 team. Note the use of *may*.

6.4 Weekly Progress & Deliverables

After Lab 1 (i.e., the first paper), there will be at least one informal presentation per week. The expected deliverables (e.g., presentation content, group website) will be discussed during class meetings (lecture and/or recitation).

The instructor will ask each group to provide a brief summary of both progress and identified issues. All group members should be prepared to provide a summary.

6.5 Professionalism & Contribution

Old Dominion University supports a comprehensive evaluation of a student’s achievement in a course as a vital part of the educational process. In support of this university policy, successful completion of this course includes satisfactory performance in the development of formal documentation (including presentations) and the Prototype (Software Solution).

Any student who fails to collaborate with his/her group in a satisfactory manner may possibly not pass the course, regardless of overall point total. Each student will be evaluated based upon demonstrated professionalism and contribution. Any student who receives poor marks from the instructor and/or their group members may not pass the class.

6.6 Unsatisfactory Performance

If a student fails to contribute meaningfully within his/her group, or a student feels he/she cannot contribute meaningfully within his/her group, the instructor will arrange a meeting. The meeting may be conducted face-to-face, via network conferencing, or via email. The instructor may consult other CS 410/411W instructors or ask other CS 410/411W instructors to attend the meeting.

During the meeting the instructor and student will discuss the student’s current contributions and expected contributions moving forward. The instructor and student arrange a follow-up meeting. If by the follow-up meeting, the student has not made the expected (i.e., agreed upon) contributions he/she may not pass the course.

7 Educational Accessibility

Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act. The Office of Educational Accessibility (OEA) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.
• If you experience a disability which will impact your ability to access any aspect of my class, please present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.

• If you feel that you will experience barriers to your ability to learn and/or testing in my class but do not have an accommodation letter, please consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

The Office of Educational Accessibility is located at 1021 Student Success Center and their phone number is (757) 683-4655. Additional information is available at the OEA website http://www.odu.edu/educationalaccessibility/

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