COURSE SYLLABUS

Course Prefix/Number: COT6931

Course Title: Computer Science Project

Course Credit Hours: 3.0

Course Meeting Time/Place: Arranged by instructor

Instructor and Contact Information:
Dr. Eman El-Sheikh
Office: Building 11, Room 221
E-mail: eelsheikh@uwf.edu
Tel: 850-474-3074

Office Hours: By appointment

Prerequisites: none

Course Description:
Capstone course for Computer Science graduate students who do not elect the thesis option. Typically taken for 3 credits in each of two consecutive semesters. Students will define and carry out a project that shows mastery of some topic in Computer Science and produces some concrete product such as a software system. Students should not enroll until they have completed at least 12 semester hours of their graduate coursework. Departmental permission is required. Projects may be of three kinds, but some projects might share aspects of more than one alternative:

ALTERNATIVE A - DOMAIN-BASED PROJECT

The goal of a domain-based project is to demonstrate mastery of computing needs in a specific technical or application domain. Examples of domains include: high performance computing, medical software, chemical engineering software, data acquisition software, etc. Students will document the techniques and specific challenges of computing for the domain. If there are software libraries or tools specific to the domain, the student will demonstrate familiarity with them. The end product of a domain-based project will normally be a written report, and may also include sample software written by the student.

ALTERNATIVE B - SOFTWARE ENGINEERING PROJECT

The goal of a software engineering project is to demonstrate mastery of the processes required to develop and maintain quality software. The student will develop a significant software product or make a substantial enhancement to an existing product. The work shall follow a clearly laid down software engineering process, and include activities of specification, design, implementation, and verification. The focus shall be on a quality product that is not a "throw-away" but that is left in a well-documented and managed configuration, ready for deployment and future enhancement. The end product of a
software engineering project shall be a written report on the project and the process followed, together with a working demonstration of the software itself.

ALTERNATIVE C - RESEARCH-FOCUSED PROJECT

The goal of a research-focused project is to demonstrate mastery of the computing needs of researchers in some specific area. The student will work with a faculty person in Computer Science or elsewhere in the University to make a substantial contribution to a defined research project. Work will probably involve some combination of developing software in support of the research and active participation in the research itself. The end product of a research-focused project shall normally be a scientific paper, co-authored by the student, suitable for submission to a recognized conference or journal.

Student Learning Outcomes:

Upon successful completion of the course, students will be able to:

1. Apply computing principles to a specific problem.
2. Identify, implement, and analyze relevant algorithms to solve a specific computing problem.
3. Present summary of project results using effective and professional technical writing and presentation skills.
4. Demonstrate ability to conceive, plan, organize and execute a significant project in computing.

Required Textbook(s):

There are no required textbooks for this course. Resources will be provided as needed for each individual project.

Grading:


Semester 1:
- 60% Project deliverable(s)
- 30% Project proposal
- 10% Project management/progress updates

Semester 2:
- 60% Project deliverable(s)
- 30% Project paper/presentation
- 10% Project management/progress updates

Grades:

The last day of the term for withdrawal from an individual course with an automatic grade of “W” is indicated in the UWF annual academic calendar [http://uwf.edu/registrar/calendar.cfm](http://uwf.edu/registrar/calendar.cfm). Withdrawals done after that date will result in a grade of “WF” or withdrawal – failing. Applying for an incomplete or “I” grade will be considered only if: (1) there are extenuating circumstances to warrant it, AND (2) you have a passing grade and have completed at least 70% of the course work, AND (3)
approval of the department chair. Final grades will be calculated according to the following standard grading scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>&gt;= 93%</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>&gt;= 90%</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>&gt;= 87%</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>&gt;= 83%</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>&gt;= 80%</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>&gt;= 77%</td>
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<tr>
<td>C</td>
<td>2.0</td>
<td>&gt;= 73%</td>
</tr>
<tr>
<td>C-</td>
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<td>&gt;= 70%</td>
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<tr>
<td>D+</td>
<td>1.3</td>
<td>&gt;= 67%</td>
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<tr>
<td>D</td>
<td>1.0</td>
<td>&gt;= 60%</td>
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<tr>
<td>F</td>
<td>0.0</td>
<td>&lt; 60%</td>
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**Expectations for Academic Conduct/Plagiarism Policy:**

As members of the University of West Florida, we commit ourselves to honesty. As we strive for excellence in performance, integrity—personal and institutional—is our most precious asset. Honesty in our academic work is vital, and we will not knowingly act in ways which erode that integrity. Accordingly, we pledge not to cheat, nor to tolerate cheating, nor to plagiarize the work of others. We pledge to share community resources in ways that are responsible and that comply with established policies of fairness. Cooperation and competition are means to high achievement and are encouraged. Indeed, cooperation is expected unless our directive is to individual performance. We will compete constructively and professionally for the purpose of stimulating high performance standards. Finally, we accept adherence to this set of expectations for academic conduct as a condition of membership in the UWF academic community.

The Student Code of Conduct sets forth the rules, regulations and expected behavior of students enrolled at the University of West Florida. Violations of any rules, regulations, or behavioral expectations may result in a charge of violating the Student Code of Conduct. It is the student’s responsibility to read the Student Code of Conduct and conduct themselves accordingly. Any occurrence of academic misconduct, including all forms of cheating and plagiarism, will be punished by a range of punishments from a grade of zero on the assignment to expulsion from the university. For more information, see the UWF Office of Student Rights and Responsibilities, which includes links to the Student Code of Conduct and the Academic Misconduct Policy.

**Assistance:**

The Student Disability Resource Center SDRC at the University of West Florida supports an inclusive learning environment for all students. If there are aspects of the instruction or design of this course that hinder your full participation, such as time limited exams, inaccessible web content, or the use of non-captioned videos and podcasts, please notify.
the instructor or the SDRC as soon as possible. You may contact the SDRC office by e-mail at sdrc@uwf.edu or by phone at (850) 474-2387. Appropriate academic accommodations will be determined based on the documented needs of the individual.

Participation and Feedback:
I encourage active participation and regular feedback. I believe that effective communication between the instructor and students will make the course more useful, interesting, and productive. Please contact me if you have any questions, concerns, or suggestions! 😊

Important Note:
Any changes to the syllabus made during the semester take precedence over this version. Updates will be distributed via email.