This course satisfies the capstone project class for MSSE students

**Instructor:** Dr. Donna M. Lohr  
**Email:** dllohr@uwf.edu  
**OFFICE HOURS:** (contact via eLearning or email)  
**Course Prefix/Number:** COT 6931  
**Course Title:** Computer Science Project  
**Course Credit Hours:** 3.0  
**Course Website:** [http://elearning.uwf.edu/](http://elearning.uwf.edu/) (login and select COT6931)  
**Prerequisites or Co-requisites:** Completion of at least 12 semester hours of graduate coursework and permission.

Note that this is a two course COT6931 sequence. Students registering in the spring will also have to register in the corresponding summer, 2013 selection to complete their Computer Science Project.

**Textbook:** There are no required textbooks for this course. Online resources will be provided within the content of the eLearning courseroom.

**COURSE DESCRIPTION**

This is the capstone course for Master students’ who do not elect the thesis option which is normally 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 computing and produces some concrete product such as a report or a computer program. Students should not enroll until they have completed at least 12 semester hours of their graduate coursework. Permission is required

Students will define and carry out a project under faculty or external mentorship that shows mastery of some topic in computing and produces some concrete product such as a technical report, research paper or a computer program. Students are assessed at the end of the project using the Computer Science Rubric of Assessment (revised for this course). CS Rubric

Students may choose from three different alternatives for types of projects, and some projects might share aspects of more than one alternative. Projects may be individual or team-based. Graduate students are encouraged to become familiar with faculty research interests early in their program to identify potential faculty or external mentors for prospective projects, and to make arrangements with a mentor prior to the beginning of the term that the student wishes to start the project.

**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 under the supervision of a mentor or in support of a client. Examples of domains include: high performance computing, medical software, 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 technical report, and could also include sample software written by the student. In addition, a condensed version in a format suitable for submission to a recognized conference or journal is recommended. (If you would like to consider submitting such a paper, see the submission requirements for a conference or journal in which you are interested).
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 under the supervision of a mentor or in support of a client. The student will develop a significant software product or make a substantial enhancement to an existing product. The work shall follow a clearly defined 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. In addition, a condensed version in a format suitable for submission to a recognized conference or journal is recommended. (If you would like to consider submitting such a paper, see the submission requirements for a conference or journal in which you are interested).

ALTERNATIVE C – RESEARCH OR APPLICATIONS-FOCUSED PROJECT
The goal of a research or applications-focused project is to demonstrate mastery of the computing or information needs of researchers or practitioners in some specific area under the supervision of a mentor or in support of a client. The student will work with a faculty member or external mentor or client to make a substantial contribution to a defined research topic or applications project. Work could possibly involve developing software or applying existing tools and techniques in support of research or an appropriate application. The work could also be an experimental design project to investigate some appropriate topic in computer science, software engineering or medical informatics. The end product of a research or applications-focused project shall normally be a traditional research paper in APA format. In addition, a condensed version in a format suitable for submission to a recognized conference or journal is recommended. (If you would like to consider submitting such a paper, see the submission requirements for a conference or journal in which you are interested).

STUDENT LEARNING OUTCOMES:
The goal of this course is to provide students with the opportunity to work on a real-world, non-trivial software engineering project. Upon successful completion of the course, students will:
1. Identify a client approved by instructor.
2. Provide an Executive Summary (1st semester - 1 page description of the project, 2nd semester – 1 page description with summary of results).
3. Project/System Requirements (appropriate number of systems requirements (SRS) pages)
4. Process Description
5. Design Specs---(depends upon the type of project---such things as event tables, DFDs, structure charts, system flow charts, decision tables, pseudocode, E-R diagrams, relational schema, storyboards, Website structure and navigation, etc.----whatever is appropriate to describe your project.)
6. Deliverables (reports, technical manuals, users manuals, code, etc.)
7. Resulting Timeline (schedule, project life-cycle phases, and various checkpoints for deliverables, typically shown as a Gantt Chart, etc.)

GRADING:

<table>
<thead>
<tr>
<th>Spring 2013 Grading Schema</th>
<th>% of grade</th>
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</thead>
<tbody>
<tr>
<td>Project Progress Report Milestones (quarterly)</td>
<td>12%</td>
</tr>
<tr>
<td>Report Content/Critical Thinking - Artifacts</td>
<td>40%</td>
</tr>
<tr>
<td>Report Communication/Writing Skills - Artifacts</td>
<td>8%</td>
</tr>
<tr>
<td>Project PowerPoint and YouTube Presentation</td>
<td>20%</td>
</tr>
<tr>
<td>Project Status Update</td>
<td>15%</td>
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<tr>
<td>Mentor/Client Acceptance</td>
<td>5%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</tbody>
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NOTE: Students are expected to complete work on schedule. Please discuss any known problems with me in advance so that appropriate arrangements may be made. The grade of "incomplete" is not normally allowed, and is reserved for a most unusual emergency—and only then if at least 70% of the course has been completed. Pay attention to deadlines! Assignments submitted to the LATE DROPBOX will not earn full credit.

Withdrawals and Incompletes:

An “I” grade will not be given unless at least 70% of the course work is completed and must be approved by the Department chair. See the UWF calendar (http://uwf.edu/registrar/calendar.cfm) for the withdrawal deadlines for this semester.

UWF policy is that withdrawals after the deadline will not be approved except (which must be documented):

1. A death in the immediate family
2. Serious illness of the student or an immediate family member
3. A situation deemed similar to categories 1 and 2 by all in the approval process
4. Withdrawal due to Military Service (Florida Statute 1004.07)
5. National Guard Troops Ordered into Active Service (Florida Statute 250.482)

Further information on withdrawals can be found at: http://uwf.edu/registrar/withdrawalpolicy.cfm

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 – both personal and institutional – is our most precious asset. Honesty in our academic work is vital, and we will not knowingly act in ways to 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.

Strict adherence to the university's Expectations for Academic Conduct will be enforced. Academic integrity forms the basis of university intellectual life. By registering for a course at the University of West Florida, you are acknowledging that you are aware of and agree to the tenets of the Expectations for Academic Conduct.

You are responsible for:

- Becoming familiar with your rights and responsibilities as defined in the Expectations for Academic Conduct.
- Knowing the requirements regarding collaborative work and the methods of documenting published sources used in your academic work.
- Practicing ethical conduct in regards to academic integrity including violations (but not limited to): plagiarism, inappropriate collaboration, dishonesty in exams, dishonesty in papers, work done for one course and submitted for another, deliberate falsification of data, interference with other students’ work, and copyright violations.

Any occurrence of academic dishonesty, including all forms of cheating and plagiarism, will result in action ranging from a grade of zero on the assignment to expulsion from the university. For more information, see http://uwf.edu/StudentAffairs/division/publications/PlagBroch.pdf or the Student Planner & Handbook at http://www.thezonelive.com/zone/02_SchoolStructure/FL_UniversityofWestFlorida/handbook.pdf.
COMMUNICATION: You are responsible for checking the eLearning courseroom daily to keep up with important announcements, assignments, etc.

Important Note: Any changes to the syllabus or schedule made during the semester take precedence over this version. Check the eLearning courseroom regularly for up to date information.

NOTE FOR STUDENTS WITH DISABILITIES:
The Student Disability Resource Center (SDRC) works with students and faculty to help make UWF an accessible learning environment in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendment Act (ADAAA) of 2008. The SDRC offers a variety of services for students with documented disabilities, including learning disabilities, deaf/hard of hearing, blind/low vision, mobility limitations, ADHD, psychiatric disorders, and medical disabilities. Some of the services provided by SDRC include:

- Interpretive Services
- Note taking Services
- Testing Accommodations
- Student Escorts
- Readers/Scribes
- Other accommodations as appropriate based on documentation

It is important for students to remember that it is their responsibility to request disability services in the post-secondary setting, and they can start the process at SDRC. Further information can be found by emailing sdrc@uwf.edu, phoning 850.474.2387 or at the following website: http://uwf.edu/sdrc/internal/index.cfm

Questions? For general course-related questions, post to the Discussion Section, or if individual in nature, e-mail Dr. Lohr: dlohr@uwf.edu