**Semester:** Spring 2013

**Course Prefix/Number:** COT6931

**Course Title:** Computer Science Project

**Course Credit Hours:** 3.0

**Instructor and Contact Information:**
- Dr. Laura J. White
- Office: Building 4, Room 244
- Email: lwhite@uwf.edu
- Tel: 850-474-3017
- Tuesdays and Thursdays from 8:30 to 9:30, and by appointment

**Course Website:** [http://elearning.uwf.edu/](http://elearning.uwf.edu/) (login and select COT6931)

**Prerequisites or Co-requisites:** None

**Course Description:**

Capstone course for Masters students who do not elect the thesis option. 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. 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. Describe the different levels of the Capability Maturity Model for software and identify the key practices at each level.

2. Describe the different roles (programmer, manager, tester, configuration manager, quality assurance engineer, etc.) involved in a defined process and how they contribute to the overall work of the team.

3. Participate productively in software development and enhancement tasks as part of a team following a defined Software Engineering process.

4. Make cogent public presentations describing Software Engineering work or concepts.

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

Grading:

15% Project Journal

60% Project Artifacts

15% Fall Semester: Process Improvement Paper/Presentation

15% Spring Semester: Project Paper/Poster Presentation

Final grades will be calculated using the standard UWF grade distribution. I do NOT provide make-up exercises. The lowest exercise score will be dropped from the grade
calculations at the end of the semester. I do NOT provide make-up exams except in extreme situations that are well-documented. The last day of the term for withdrawal from an individual course with an automatic grade of 'W' is March 22, 2013. Withdrawals 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.

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.

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.

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 the UWF Student Handbook (http://www.uwf.edu/uwfmain/stuHandbk/).

Assistance:

Students with special needs who require specific examination-related or other course-related accommodations should contact the UWF Office of Disabled Students Services (http://uwf.edu/sdrc/ or tel. 850-474-2387). DSS will provide the student with a letter for the instructor that will specify any recommended accommodations.