

FAYETTEVILLE STATE UNIVERSITY
Department of Mathematics and Computer Science
Course Syllabus, Fall 2010
CS 490 Senior Project

I. Locator Information:

Instructor: Dr. Daniel Okunbor E mail address: diokunbor@uncfsu.edu
Office Phone: (910) 672-2104 Office Location: LSA 224
Course Number and Section: CSC 490 Semester Credit Hours: 3
Office hours: By appointment
Day and Time Class Meets: TBA
Final Exam: N/A

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account that is easily accessible via the Internet. The university has established email as the primary mode of communicating with enrolled students about impending deadlines, upcoming events, and other information important to student progression at the university. Students are responsible for reading their email on a regular basis to remain aware of important information disseminated by the university. The university maintains open-use computer laboratories throughout the campus that can be used to access electronic mail.

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Rules and regulations governing the use of FSU email may be found at:

<http://www.uncfsu.edu/PDFs/EmailPolicyFinal.pdf>

II. Course Description

(New Catalog) This course presents a formal approach to state-of-the-art techniques in computer science and provides a means for students to apply the techniques. An integral part of the course is the involvement of students working in teams in the organization, management, and development of a large project. Project topics include software systems and methodology, computer organization and architecture, theory and mathematical background, computer security and social issues.

(Old Catalog) This course reviews and puts into context the key components of the undergraduate computer science curriculum. The course content reflects national undergraduate computer science curriculum standards and national standardized exams that cover the undergraduate computer science curriculum. Topics include software systems and methodology, computer organization and architecture, theory and mathematical background, computer security and social issues.

Prerequisites: Senior status with nine hours of CSC at the 300 level and nine hours of CSC at the 400 level.

III. Disabled Student Services

If you have a disability or think you have a disability, please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. Course Materials:

Textbook: None.

V. Student Learning Outcomes

Upon completion of this course,

- Students will be able to comprehend the key knowledge of the undergraduate computer science curriculum and allow for the integration and reflection on previous knowledge
- Students will demonstrate their advanced abilities and skills in solving computing problems
- Students will be able to use current techniques, skills, and tools to analyze, design and implement computing systems for real-world cases
- Students will demonstrate an understanding of the importance of team work in research/software development and be able to effectively play a role in a team-work environment
- Students will be able to prepare clear and concise documentation in a professional manner.
- Students will be able to present the final software and/or research results to others who are not familiar with the project.
- Students will demonstrate their ability to keep abreast of technical developments on selected topics

VI. Course Requirements

- Each student must work in a team of two (at most three in special cases) to complete a major project that investigates, analyzes, and solves a real-world problem. This real-world problem can be a research project or a software development project. The project should demonstrate both your academic knowledge and professional skills. Find a teammate and choose a project carefully. You will work with your teammate to devote the entire semester to this project.
- The students will manage their team in a professional manner, with each team member performing assigned tasks by the required time and keep a timesheet for each team
- Each team should meet with the advisor and/or the instructor at least once a week for guidance and assistance.
- The class will meet every second and last Thursday of each month, and otherwise notified meetings – so it is very important that you check your university email and/or Blackboard course website regularly.
- The students will remain in frequent contact within the team to insure that satisfactory progress is being made, and that the interface requirements and the project specifications are being implemented.
- When any disagreements arise within the team, the students will first attempt to resolve the conflict. If conflicts persist, then the group will seek the counsel of the instructor and/or the advisor.

Specifically, you need to:

1. Find a partner and to make a team.
2. Find a project topic and a project advisor (see the project pool provided separately)
3. Each team writes up a short proposal (one page is fine) with your advisor and submit it by **September 4, 2010**.
4. Conduct research, design, implementation, and test software for the problem.
5. Submit **bi-weekly** timesheets and progress reports (both oral and written) every second and last Thursday of the month when the class meets. For software development, each team should submit complete documentation for each phase of the development cycle. This includes requirements, analysis, design, and implementation, and testing.
6. Submit a final written report by **November 25, 2010**.

7. Give a final oral presentation during the week of November 30 and the finals to the class and/or the CS faculty.

VI. Evaluation Criteria/Grading Scale

The final grade for each team member will be the same, unless there are extenuating circumstances. The grading scale for determining the course grade is given below:

Attendance/Participation.....	10%
(Second and last Thursdays of each month, and otherwise notified)	
Formal project proposal	10%
Bi-weekly progress reports including timesheets and/or development documentation	35%
Final written report	20%
Oral presentation.....	20%
Team management	5%

The grading scale is based on the *Undergraduate Catalog* and is as follows:

- A 90%—100%
- B 80%—89%
- C 70%—79%
- D 60%—69%
- F 0%—50%
- W Student initiated withdrawal from class.
- FN Failure for Non-attendance.

There will be **NO** extra credit assignments, projects, etc.

VII. Academic Support Resources

N/A

VIII. Teaching Strategies

The teaching strategy for this course will be individual, small group discussion, and class presentation.

X. References

N/A