CS 461, 462, 463 – Senior Software Engineering Project

Catalog Description: Utilize software engineering methodology in a team environment to develop a real-world application. Teams will be responsible for all phases of software development, including project planning, requirements analysis, design, coding, testing, configuration management, quality assurance, documentation, and delivery. Three-term sequence required.

Credits: 8 (3/3/2)

Prerequisites: CS 361, CS 362
For CS 461: CS 361
For CS 462: CS 361 and CS 461
For CS 463: CS 462

Courses that require this as a prerequisite: None

Structure: Two 50-minute lectures per week

Instructors: Mike Bailey

Course Content:
- Software requirements analysis
- Project planning and management
- Software systems design
- Development, testing, and documentation
- Project decomposition and working in teams.

Learning Resources:
- Matthew Moran, "The IT Career Builder's Toolkit", Cisco Press, 2005 (optional)

Course Learning Outcomes: (* indicates quantitative outcome—see Criterion 4)
At the completion of the course, students will be able to…
1. **Design, plan, organize, synthesize and complete** a significant software project in three academic quarters (ABET Outcomes: A, B, C, K, E)
2. **Apply** all aspects of the software engineering process, including project planning, requirements documents, software design, coding, testing, walk-throughs, documentation, and delivery* (ABET Outcomes: A, B, C, I, J, K)
3. **Demonstrate** good communication skills in the form of weekly reports and project talks, posters, and elevator talks* (ABET Outcomes: F)
4. **Participate** effectively in a team environment* (ABET Outcomes: D)
5. **Analyze and organize** their own career preparation* (ABET Outcomes: E, G, H)
6. **Evaluate** the professional, legal, and/or social implications of software product development* (ABET Outcomes: E, H)
7. **Evaluate** the contributions and importance of software projects to the broad user community (ABET Outcomes: G)

8. **Explain** the importance of software projects to people from other disciplines and the general public (ABET Outcomes: F)

Students with Disabilities:
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 737-4098.

Link to Statement of Expectations for Student Conduct, i.e., cheating policies
http://oregonstate.edu/admin/stucon/achon.htm