

SYLLABUS

EPICS: Engineering Projects in Community Service

COURSES: CS282S, CS283S, CS382S, CS383S, CS482S, CS483S

INSTRUCTOR: Panos Linos Ph.D.

LECTURES: MW 2:25 PM – 3:40 PM, Fairbanks 148

OFFICE HOURS: TR 2:00PM-3:30PM, MW 11:00AM-12:30PM or by appointment

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WWW: <http://epics.butler.edu>

COURSE OBJECTIVES: the main goal of the EPICS service-learning course is to provide an environment where teams of students can exercise their software engineering skills by being exposed to realistic systems and customers and at the same time helping their community. Also, students are expected to develop a professional attitude and a good balance between their technical and “soft” skills.

ICR (Indianapolis Community Requirement) OBJECTIVES: Students will

- Have an active learning experience that integrates classroom knowledge with activities in the Indianapolis community.
- Use an experience in Indianapolis to further their understanding of the nature of community and the relationship between community and themselves.
- Further their commitment to service and ongoing involvement as community actors.

COURSE STRUCTURE

- **Day One:** Weekly project management meetings. Related activities may include project status monitoring and reporting, project guidance, new members mentoring, customer visits etc. Teams will be posting their Weekly Status Reports (WSR) on our website and discuss their progress with the instructor.
- **Day Two:** Group working meetings for planning, analyzing, designing, implementing and testing the project. Other activities might include Web page design, implementation and maintenance. Also, our client regular meetings will take place.

SEMESTER MILESTONES

- **MILESTONE I:**
 - Establish teams and their structures (i.e. election of leaders, assignment of member roles, responsibilities, duties, etc.)
 - Provide orientation to new members (i.e. introduction to the team rules, evaluation procedure, progress assessment, responsibilities, mentoring, etc.)
 - Establish and document a detailed semester project plan, which includes individual and group goals and deliverables for the semester.
 - Meet with the instructor and customer to establish consensus for the semester plan and address suggestions for modification.
- **MILESTONE II:**
 - Conduct regular meetings with the customer(s).
 - Teams gather and document requirements specifications for the semester.
 - Teams create the project design and initiates it's (re) construction.

- Conduct a mid-semester *practice* peer evaluation in order to assess current progress towards the course.
- MILESTONE III:
 - Teams deliver a prototype version of the system to the customer accompanied by appropriate documentation.
 - Groups discuss their continuity strategy for next semester with the instructor and review status of the team's dossier.
 - Teams set up poster-workshops and/or visit introductory courses for recruiting.
 - Teams prepare and give their final project presentations (both technical and client)
 - Team conducts a semester peer evaluation in order to assess the contribution of each individual team member.
 - Instructor evaluates each team member's performance and assigns a grade.

Final Presentation: Each team will give a final project presentation, which is typically scheduled during the final exam time slot for this class. During this presentation you will explain what was accomplished during the semester. If appropriate, this presentation will include a software demo. Immediately after the presentation, the client(s) will be asked to fill out an evaluation form for the entire semester and give it to your instructor.

Deliverables: Each team will be given a set of semester tasks to complete with project deliverables (documents, software, etc.) that must be uploaded to our website such as:

- Project management documentation
 - Weekly Status Reports (WSR)
 - Team's comprehensive e-dossier
 - Team's *signature* project poster/website
 - Power point presentation(s)
 - Up-to-date project web site
- Project technical documentation
 - Requirements specifications document
 - Design document
 - Implementation and testing document
 - Technical manuals and tutorials
 - Code developed during the semester
- Team structure documentation
 - Member roles description (leader, recorder, QA, client liaison, designer, coder, etc.)
 - Description of each member's personal semester goals
 - Description of each member job responsibilities for the semester
 - Peer evaluation mechanism
- Semester plan documentation
 - Problem statement
 - Objectives
 - Timeline (Gantt chart)
 - Continuity plan

- Progress report documentation
 - Team milestones accomplished
 - Member progress reports
 - Progress assessment method
- Assessment and evaluation documentation
 - Peer Evaluation Form
 - Customer Evaluation Form
 - Overall semester progress and self-assessment

GRADING: Each member of the team will receive a grade to be determined as follows:

- 40% Peer evaluation
- 30% Instructor evaluation
- 30% Client satisfaction

Each member of each team will fill out a peer evaluation form to evaluate the other members of that team. We will conduct "practice" evaluations and interviews in the middle of the semester.

The overall assessment of your performance will be based on the following:

- The quality and content of all project deliverables
- The consistency of uploading all related artifacts on our website
- How close the team was to reaching the semester goals
- The quality of the client presentation
- The content of the technical presentation
- The instructor, client and peer evaluations
- The professionalism of each member and the team as a whole

ACADEMIC INTEGRITY: Please review our department's statement of academic integrity at our webpage:

<https://www.butler.edu/computer-science/activities-resources/academic-integrity>

SPECIAL REMARK: *It is the policy and practice of Butler University to make reasonable accommodations for students with properly documented disabilities. Written notification from Student Disability Services is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me and allow one week advance notice. Otherwise, it is not guaranteed that the accommodation can be received on a timely basis. Students who have questions about Student Disability Services or who have, or think they may have, a disability (psychiatric, attentional, learning, vision, hearing, physical, medical, etc.) are invited to contact Student Disability Services for a confidential discussion in Jordan Hall 136 or by phone at extension 9308.*