The Polytechnic School

eProject Program Overview

The eProject program brings together students and industry to create new solutions to real-world problems. Through this program, industry partners engage with students in a mutually-beneficial technical relationship. Challenges defined by industry are solved by teams of students working with guidance from faculty mentors and industry advisors. For students, the program provides an opportunity to apply their technical skills, and knowledge of design and engineering principles, to the solution of a complex, team-oriented project, typically over a two semester course sequence. For the industry partners, eProjects provide a cost-effective opportunity to solve technical problems, and the opportunity to interact with students to gain access to new ideas and to mentor potential future talent.

The eProject program is intended to mirror the type of experiences new graduates will face when they begin their careers. In this context, the team members learn project management and organization skills, enhance their technical breadth and depth, apply newly-acquired knowledge, and develop their documentation and presentation abilities. Students typically work in teams of four to six to develop a solution from concept to implementation, managing and executing the project. Industry partners access the students' creativity and expertise to solve their technical problems while enjoying the opportunity to assess potential intern and workforce candidates.

Project proposals are solicited from industry partners before the start of each semester. The projects are expected to be challenging, with a well-defined scope that can be completed by the team in two semesters. Ideally, the proposal provides a mix of technical expertise, technologies and a "make or build" design experience for the students. The majority of projects are carried out by students in senior-level CAPSTONE project courses; some projects may include students from all academic levels including first-year to graduate students.

The project scope and deliverables are negotiated between the industry partner liaison and the students, along with a timeline, milestones, information flow, and reporting requirements. The industry partner commits to providing the team with appropriate equipment, required material items and support, or funding for students to procure these materials, and for any required team travel expenses. In return, the industry partner receives full access to all project outcomes and results, as well as ownership of the final project deliverables. At the option of the industry partner, intellectual property developed during the duration of the project may be retained by the industry partner. Project results are presented at The Polytechnic School **Innovation Showcase**, held at the end of each semester, where the student teams display their project outcomes for the industry partners and the public.

Project Overview

The eProject is proposed by the industry partner for execution by the student team. The project is an academic experience performed over a two-course sequence covering the fall/spring semesters, or the spring/fall semesters. The emphasis of the eProject is for students to *make,* or realize in an appropriate tangible way, their products and inventions for the industry partners, not simply create

concepts and reports. As noted above, depending on the project scope and deliverables, funding may be required for materials, facilities use fees, external support, team travel, etc.

The industry partners should note that ASU and The Polytechnic School of the Fulton School of Engineering do not guarantee that the final deliverables will be market-ready, and assumes no liability in connection with the eProject deliverables. The delivery of the final implementation and summary reports at the end of the second semester marks the end of the project. No maintenance or support can be provided after the end of the second semester.

What this project is:

- An educational experience for the students
- An opportunity for industry partners to interact directly with students, tap their creativity and problem-solving skills, and evaluate student talents in a project setting
- An opportunity for students to learn about specific industries and companies, interacting and working in teams to solve a "real-world" problem

What this project is not:

- Industry partner staff augmentation
- Individual, or non-integrated, efforts
- University sponsored-research activity

Non-disclosure and Intellectual Property

The Arizona Board of Regents policy on Intellectual Property (Policy 6-908) states that student-created work products are the property of the student. Students can be asked to sign a non-disclosure agreement in advance of performing any work. However, at the end of the second semester a project summary adequate to demonstrate academic and teamwork achievements must be allowed for oral in-class presentation and written reports to the course instructor. Industry Partners may negotiate with the student project members for the ownership rights to any intellectual property, or copyrights, created in the course of the project. Any such requirements must be clearly stated in the initial project proposal, and any agreement must be approved by the student(s) and the industry partner before the project begins. Students must be informed that they are not required to sign any agreement. Non-compete agreements are not appropriate for an academic experience; students will not be asked to sign such agreements.

Expectations of Industrial Partners

The level of involvement by the industry partners will vary with the project. Typical participation is:

- Set work-product requirements and quality expectations
- Provide students with insight on the project background, approach, plan and technologies
- Provide specialized hardware, software or documentation, as needed
- Meet and communicate with the student team on a regular basis
- Be available for questions and clarification on requirements and specifications
- Review project deliverables and provide feedback to the students
- Provide feedback to the instructor on the team's progress and student performance

Expectations of Students

All students are exected to actively participate in their project team:

- Plan the project and set the schedule for task and deliverable completion, review with industry partner
- Meet at least once per week as a team, record meeting minutes
- Track progress and keep the project plan up-to-date
- Communicate regularly with the industry partners
- Produce the deliverables per the project plan and course requirements

Proposal Procedure

To submit an eProject proposal, interested parties should complete the **eProject Proposal Request Form,** and forward the proposal to Associate Director Timothy G. Beatty at timothy.beatty@asu.edu .

The selection and initiation of eProjects is carried out with the following process:

1. eProject proposals are evaluated by a faculty team for academic relevance, student skill sets, topical interest, instructional potential, and scope. This may be an iterative process whereby the scope is modified with the industry partner, and adjusted to match the two-semester duration. After acceptance, industry partners are notified and the eProjects are assigned to a faculty advisor.
2. At the beginning of the school semester, an **eForum "speed-dating" mixer event** is held where industry partners are invited to present their projects face-to-face with the students. The objective is to provide information for students to self-select projects based on their interests. Following the event, each student's "Top 5" project selections are captured and provided to a faculty committee for final assignment to teams. Teams are subsequently notified and project kick-off meetings occur with the industry partners during the following week.
3. In addition to classroom activities and training, student teams meet weekly to plan and execute their respective projects. Faculty and industry partner mentors participate and advise the teams as required. Planning meetings, project reviews, etc., are scheduled by the students.
4. The **Innovation Showcase** events are held on The Polytechnic School campus at the end of each semester where student teams present their progress or final presentations. These events are open to industry partners and the public.

Contact

For more information, contact Timothy G. Beatty, Associated Director of eProjects/Capstone Projects, **email**: timothy.beatty@asu.edu , **Office phone**: 480-727-5946/Cell - 602-821-2146.