

The Environmental Challenge

...a student team competition



PROTOCOL

General Description:

The Environmental Challenge (EC) Program is a student team competition to prepare and present an optimal solution to a complex “true-to-life” environmental problem. The problem presented will be of current value, representative of the location of the event, and require multi-disciplinary approaches for success. The Challenge seeks not only technical and scientific analyses, but solutions that are presented in conjunction with the development of appropriate regulatory approaches and resolution of political and community issues.

The goals of the EC are to

- Involve students in the Pacific Northwest International Section (PNWIS) Annual Conference of the Air & Waste Management Association
- Provide experience in solving complex environmental situations in a fun and supportive atmosphere
- Provide students an opportunity to display their talents
- Be a premier networking event for students to connect with internship and job opportunities

The EC is designed to promote formation of student teams with the broadest feasible range of environmental disciplines including engineering, planning, policy, economics, and various other sciences. The problem will be relevant to the conference location and current events. Teams must research the problem background, as well as the technical, social, economic, and political aspects of the situation. Teams must stay apprised of ongoing events related to the problem adjusting their solutions appropriately leading up to and during the conference.

Although winning solutions to the proposed problem must have sound engineering and technical bases, the solution generally does not require a full engineering design presentation. Similarly, all problems pose economic and political issues that must be addressed. Solutions are expected to provide reasonable resolutions applying basic engineering and scientific knowledge to research scenarios and critical questions.

Once teams reach the conference, preparation of broad background knowledge of the challenge topic will be the key to a successful competition. Role players in the EC problem will be identified and available for students to approach with questions and to consult for opinions. The role players are conference attendees and professionals in the environmental field. The conference is a premier networking opportunity and the EC problem provides an excellent topic for discussion and networking. The role players provide a key interaction for the EC participants as direct feedback on their solutions, asking questions to prepare the students for the project presentations, and enhancing the student networking experience at the PNWIS Annual Conference. The role players also are critically involved in a “tweak” (added complication to the problem) that tests the students’ knowledge of the challenge topic.

Each team must send an e-mail to Stephen Dent (sdent@wsu.edu) stating your intent to compete. This e-mail will serve as your enrollment in the EC competition. The e-mails will also be used to deliver information of any changes prior to the competition. If you have questions, submit them to Stephen Dent. Answers to the questions will be sent out to all teams.

EC Competition Preparation

Student teams should start to form immediately following posting of the problem (October 1, 2010) identifying and recruiting representatives from appropriate disciplines as needed to address the problem holistically. Just as corporations and other organizations pull together teams from their staff to most effectively address any given project, so too should each student team. Schools may wish to consider combining students to make up balanced teams and are encouraged to do so. Please note: Each team member must register for PNWIS Annual Conference in addition to the team registering for the EC.

Student teams may not contain more than 5 members and are generally comprised of 3 to 5 individuals.

Eligibility:

The EC competition is open to all students who are registered for the PNWIS Annual Conference and have not been out of school for more than one full year. The competition will be a combined event for graduate and undergraduate students competing equally.

Note: Students must register for AND attend the conference to participate in the competition.

Teams must register prior to the PNWIS Annual Conference *and one member from each team must contact Stephen Dent* (sdent@wsu.edu) prior to the proposal submittal. Each team member participating must register for and attend the annual conference during which the competition is judged.

Expectations for proposed problem solutions:

Solid technical analysis, logic train, process, conceptualizations, and creativity are all critically important to the proposal and presentation composition. Clear and concise presentation of your thoughts in a public forum is paramount to success. Your team will need to make reasonable assumptions as part of the solution. The assumptions must pass the “straight-face” test. This is (almost) the real world! The proposal must identify each team member by name and the role they will have in the presentation, (e.g., “Sally Smith” is the lead project engineer and will address waste issues, “Jim Jones” is the city planner; You include the disciplines that you think you need).

Written Proposal:

Each team must submit a written proposal prior to the PNWIS Annual Conference on November 1st 2010 by 4:00 PM - addressing the problem: The written proposal should provide an outline of the approach that your team is going to take, the issues that you will be discussing, include the names and roles of each team member, and *shall not* exceed 3 pages (Not including Title Page or diagrams).

Proposal formatting guidelines include the following:

- 10 Pt Font (New Times Roman)
- 1.5 Line Spacing
- 1 Inch Margins
- Divide your proposal into clearly numbered sections (1.1, 1.2, 2.1, etc...)
- Reference in text must be fully cited at the end of the proposal.
 - Example: Reference in text – (Dent, 2010)
 - Full reference at end- Dent, S., 2010. Why students should follow the rules: An essay on dire consequences. Journal of the School of Hard Knocks. 1(2), 1133.

Penalties for breaches in protocol:

- Late Submittal (5 Points Per Day)
- Failure to Register with Stephen Dent prior to proposal submittal (5 Points)
- Deviating From Formatting Guidelines (3 Points Per Infraction, up to 15 Points)
- Failure to Interview all Roll Players (Up to 10 Points Per Roll Player, at Roll Players Discretion)

Written proposals will be distributed to the EC judges on November 7, 2011 with a scoring form.

The Tweak:

No matter how much you do and know, in real life unexpected events and expectations can and do occur in real life. To this end, you should expect (when you pick up your EC registration packet at the Student Welcome Booth) some late breaking information that might alter your approach and/or require your problem to the solution to evolve. The problem and the tweak will require that you find and talk to “experts” and attend technical sessions, during the conference, for answers and important information.

An orientation meeting for the EC participants will be held on Wednesday November 8, 2011 (exact time will be identified in the conference program). Role players in the problem will be identified in the EC packet picked up at the Registration Booth.

Role Players:

During the conference you will be required to speak with role players involved with the problem. These role players will be project proponent(s), regulators, politicians, activists and other expected or unexpected individuals critical to creating a solution to the problem. Role players will offer insight and clarify any additional questions each team may have in relation to the problem. Please use professionalism during all business meetings, technical and plenary sessions, have fun while remembering your environment. While these role players are critical, so are the technical sessions and exhibitors that are related to the problem.

Judging:

There will be a slight modification for the 2011 competition. In previous years role players and judges all used the same evaluation form. This year there will be separate form for each. Role players will score the teams based on their interactions with the teams and on how each team address the role players concerns during the presentations. The judges will score the teams on their proposals and presentations at face value. The scores will be weighted as 20% from role players, and 80% from judges.

Competition Finale: The Presentation

For the final presentation, teams must demonstrate their understanding of the issues in the written proposal and address the tweak. Sustainable approaches for these and other site issues are of great interest to the owners.

The winning team presentation will be strong in approach, logic, clarity, application, and creativity.

Each of the teams will present their problem solution on Thursday morning November 10th, 2011 from 8:00 a.m. to 12:00 p.m. during the technical session program that day. Presentation order will be chosen randomly. A computer and projector will be provided for the presentation (w/Microsoft PowerPoint). Please bring your presentation on a data stick or disk to be transferred to the computer at least 15 minutes before the 8:00 a.m. start. Plan for a 15-minute presentation followed by 5 minutes of questions and answers.

Winners will be announced at the Honors and Awards Luncheon on Friday, November 11, 2011.

EC Timeline:

DATE	TIME	EVENT
September 9, 2010		EC Problem Posted
November 6, 2010	Midnight	EC Proposal Due at (sdent@wsu.edu)
November 7, 2010		Tweak Sent to Teams <i>after</i> Proposal Submitted
November 8 - 11, 2010		PNWIS Annual Conference
November 9, 2010	2:30 – 3:00	EC Orientation
November 9, 2010		EC Role Player Interviews

November 10, 2010	8:00 – 12:00	EC Presentations
November 11, 2010	12:00 – 1:30	Honors and Awards Luncheon

Questions should be directed to:

Stephen Dent
sdent@wsu.edu