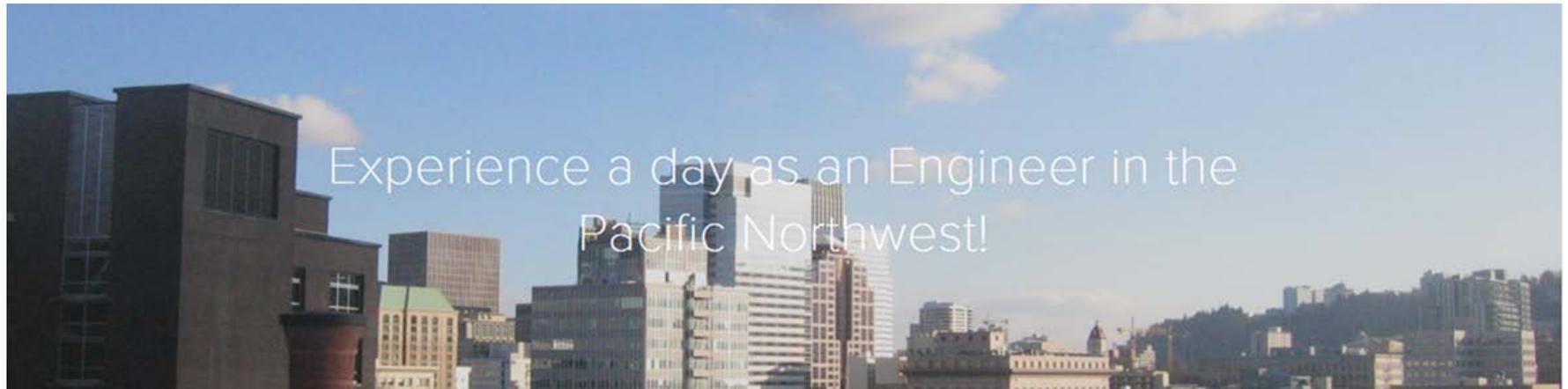




Puget Sound Engineering Council

Proposal for a PSEC High School Event Similar to Oregon E-Week Event



January 8, 2017

Mark Powers – IISE and SME Rep



February 25, 2016

52nd Annual Engineers Week High School Program

ALL-DAY Event Schedule:

- 9:00-9:30** Sign in to morning E-Week Hands-on Workshop
Oregon Department of Transportation offices – 123 NW Flanders St., Portland
- 9:30-9:45** Introductions of participants / Icebreaker
- 9:45-10:15** **Panel Discussion 1:** What is engineering? Hear from local engineers
- 10:15-10:30** Students participate in hands-on problem solving, design activity.
- 10:30-11:00** **Panel Discussion 2:** How you can explore engineering now
- 11:00-11:30** **Panel Discussion 3:** Preparing to apply and get into college
- 11:30-11:45** Lunch
- 11:45-12:15** **Students travel from ODOT to Lloyd Center DoubleTree Hotel (1000 NE Multnomah) on MAX. Trimet tickets to be provided.**
- 12:30** All students and teachers sign in and meet with their field trip leaders.
- 1:30-4:00** **Field trips:**
- | | |
|----------------------------------|--|
| Biotronik | PDX Port of Portland HQ |
| Blount International | PSU Engineering Research Labs |
| Boeing | Rockwell Collins Head-Up Guidance System |
| Franklin HS Construction | Tillicum Crossing Bridge |
| Legacy Biomechanics Research Lab | Vestas Wind Systems |
| OHSU Biomedical Engineering | Vigor (formerly Oregon Iron Works) |
| PDX Airfield | World of Speed Museum |
- 4:00-6:15** Exhibit Hall and Mini-Workshops open for all attendees
- 5:00-6:00** Engineer hosts arrive and sign in
- 5:30-6:00** Engineers' Reception, hosted by Oregon Connections and the South Metro-Salrm STEM Hub
- 6:15-8:30** Dinner Program. Students and teachers join local engineers for dinner activities and presentation.

Dr. Daniele Lantagne, PE

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"Testing and evaluating water, sanitation, and hygiene interventions for reducing infectious disease in developing countries and emergencies"

Portland holds a 1-day series of events for high school students who are interested in a career in engineering.

Field trips, workshops, and exhibits culminate in a banquet dinner program at the Double Tree Hotel at Lloyd Center.

Students are sponsored by engineers from the various engineering societies and sometimes by engineering employers. The program is over 50 years old.

About 300-400 students and an equal number of engineers are involved each year. The cost for each engineer and for each student is about \$75.

Website for Portland Event

<http://www.oregonengineersweek.org/>



Mini-Seminars and Mini-Workshops are a relatively new addition to the Portland area's program. They consist of short, 30-45 minute, presentations on numerous topics which may be of interest to high school students considering a career in engineering.

A panel of representatives from colleges, universities, and community colleges discuss their engineering programs, the application process, financials, etc.

The Mini-Seminars and Mini-Workshops run concurrently with the Exhibit Hall program. Students are free to participate as they return from their field trips.



The Exhibit Hall has been part of the program for decades. It started out as a few tables with brochures from colleges and universities, but it has grown to include large employers, recruiters, book publishers, the engineering societies, and other organizations in addition to representatives from the engineering schools. Exhibit Hall costs are paid by the exhibitors.

Everyone participating in the E-Week banquet program is free to view the exhibits.



Field Trips began when the engineer sponsoring a student would take the student to see the place where he or she worked for a 1-2 hour tour and introductions to engineers at the place of business.

Today, there are also organized field trips to project sites around the Portland area. Bus or van transportation is provided, and tour leaders are provided by the company or organization involved. Up to 100 students may be involved in trips to a particular site. Transportation is provided by the sponsoring company or by the participating engineers.



After a day of field trips, seminars, workshops, and learning, the students and sponsors attend a banquet dinner at the Double Tree Hotel at Lloyd Center. The dinner is hosted by the E-Week Planning Committee, sponsors, and local engineers. Students and engineers are seated at tables together, and they have a unique opportunity to talk with one another, to share stories, and to ask questions. A college speaker and a headline speaker will give keynote presentations to give students insight into the engineering field.

Students who have registered for E-Week are automatically registered for the banquet. A High School Registration Coordinator takes care of many of the details.

Organization and company sponsors receive a number of banquet seats, and they must register separately for the banquet.

Local engineers interested in supporting a student's cost for attending the banquet may sign up as a sponsor and must register for the banquet as well.



Duties of Portland E-Week Planning Team

- Website
- Coordination and communication with high schools, STEM teachers, students, parents, engineering societies, engineers, sponsors, exhibitors, colleges, universities, and media
- Event planning & scheduling
- Arrangements for speakers
- Arrangements with Double Tree Hotel
- Establish High School Registration Coordinators and procedures
- Collect data and parental consent from students
- Link career interests of students with tours and engineering hosts
- Collection of banquet fees and registrations
- Name tags
- Presentations at engineering society meetings
- Table decorations
- Printed programs
- Dry runs / practice sessions
- Set-up at events
- Seating plan / dinner tickets
- Door prizes and awards
- Review of keynote talks
- Review of tours and tour procedures
- Review of seminars and workshops – seminar and workshop procedures
- Exhibit plan and exhibition procedures
- Safety of participants and security



Puget Sound Event Scheduling

A Puget Sound area event should not be held in February to avoid interference with the Awards Banquet and the Engineering Fair. This leaves all of the other months during the September 2017 to May 2018 school year.

Vision

- Start with 1-2 school districts and a few high schools for the first year -- probably in the Everett area.
- Perhaps hold the first event at facilities around Paine Field, such as the Future of Flight Museum.
- Add additional events in other surrounding areas in future years – Boeing Field, Bellevue, etc.
- We need a tentative go-ahead from the PSEC member societies.
- Need a small number of member societies to offer volunteers and sponsorship money.

PSEC Next Steps

- Determine if some of the PSEC member societies want to set up a planning team. This should probably include a couple of the larger societies. Not all PSEC member societies need to be involved.
- Distribute this presentation to the PSEC member societies immediately.
- Determine which societies wish to be involved at the next PSEC meeting in February 2016.
- If there is adequate interest, create a planning team of new volunteers. This planning team will propose a good way for PSEC to start developing a Portland-like event – or something different. The team will plan and work on the event. The planning team will report each month to the PSEC reps – more frequently if necessary. Planning team to determine if we will offer a series of events on the same day like Portland, a single event from Portland's busy day, or something modified to meet needs in our region.
- Planning team to scope the initial activity, determine whether it is an event for this year or next year, provide a preliminary plan and schedule, and make request(s) for funding by March 2017. Hold a Saturday planning workshop soon.
- Talk to a few high schools that might be interested in participating – include a rep from at least one local high school on the planning team.