We are very excited about high school students. They tend to be uninhibitedly imaginative and strongly inclined to help people. They are also at an ideal age to challenge the world and imagine how things could be different.

**Overview:** The PSU Innovation Challenge Competition is a uniquely student-driven opportunity designed to excite student’s creativity and goodwill. It distinguishes itself from many other STEM activities by focusing on the humanitarian impact of engineering and design and encouraging young people to explore how these fields can be utilized to improve the lives of others.

This competition is welcoming to all. Young women and students from diverse backgrounds and communities underrepresented in STEM disciplines are strongly encouraged to participate.

**Theme for 2015:** Will be announced later this fall. Examples from previous years include “Schools in 2025” and “Technology for Aging Generations.”

**Program structure:** Each high school team is paired with PSU college student mentors majoring in engineering or computer science. Mentors are trained by PSU staff and meet weekly with teams to help them conduct fieldwork, identify a problem that can be solved through
design, and refine a solution by applying the engineering design process. Mentors will be matched with teams in December and meet weekly from January - March 2015. All participating teams will convene at a final event in early April where they will present their final projects before a panel of judges and audience of their peers.

For high school teachers: Each high school team will have an adult coordinator – a teacher or staff member. The high school coordinator’s role is to be the point of contact between PSU and the participating high school. Coordinators will help identify interested high school students, form a team, and communicate important information about the Innovation Challenge. They may also help to facilitate interaction between the PSU student mentors and the high school team; for example, by allowing the team to meet with their PSU student mentors in a classroom at their school. High school coordinators will meet with mentors before the weekly team meetings begin.

In the spirit of student innovation and creativity, project ideas and development should be led by high school participants with guidance from PSU student mentors. However, adult high school coordinators will be responsible for making sure their team meets deadlines and that a project’s scope is manageable under the given timeframe. High school coordinators will receive a $1,000 stipend at the end of the competition. Each coordinator must submit a signed Personal Services Agreement to receive their stipend.

Timeline:

Now - October 2014  Representatives from PSU are available to visit classrooms to present the PSU Innovation Challenge and answer questions.

November 14, 2014  Deadline to register a high school team.

Early January 2015  Kick-off event hosted by PSU. Mentors will meet their team and high school coordinator. Lab tours of the Maseeh College of Engineering and Computer Science will also be offered.

January - March 2015  Mentors meet weekly with their teams. Over the course of three months they will help them to brainstorm potential ideas, conduct fieldwork, develop a proposal, refine a concept, build an optional model or prototype, and develop a presentation.

February 2015  Teams submit project proposals to PSU for review and feedback.

Late March 2015  Teams submit a lab journal that demonstrates the development of their concept and team member roles, as well as an electronic file of a poster to be printed by PSU for their final presentation (teams will be provided with a poster template).

Early April 2015  Teams meet to present before a panel of judges and audience. Teams are encouraged to use multimedia (e.g. PowerPoint) and to produce a physical model or prototype of their concept.
Team details:

- Each participating high school may register one team
- Each team should have at least four but no more than eight students
- Each student must submit a Student Waiver Form signed by a parent or guardian
- Each team will be supervised by a designated high school coordinator to facilitate communication between PSU and the school’s team
- Students who have participated in the past are welcome to participate again

Judging criteria: At the final event, one team will be recognized as the top performer for the following categories: Scope and Depth, Creativity, Presentation, Teamwork, Technology Focus, and Human Impact. There will also be a seventh category, “Audience Favorite” that will be determined by a vote. The winning teams will each receive a banner as recognition of their achievement.

More info: Visit bit.ly/HSInnovChall to learn more. Representatives from PSU are also available to present the PSU Innovation Challenge to students and answer their questions. Please contact Yeruwelle de Rouen at 503-725-5030 or derouen@pdx.edu to schedule a classroom visit.

The deadline to register a team is November 14, 2014. An application is available at bit.ly/HSInnovChall. Personal Service Agreement and Student Waiver forms are due by January 1, 2015.