Connecting Community with Science & Engineering at Seattle University

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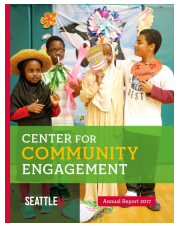
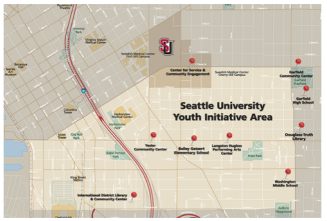


These projects highlight connections with our community through collaborations between our College of Science & Engineering and Center for Community Engagement, and share insights from collective experiences. Our aim is to provide useful examples across a wide array of STEM disciplines, and to generate ideas for future project opportunities and potential collaborations. Seattle University launched an ambitious project in 2011 to unite the university and the wider Seattle community to develop successful youth, thriving communities and an engaged neighborhood. The Youth Initiative strives to strengthen education and support systems for neighborhood youth and their families while enhancing the university by providing service, learning and research experience to students, faculty, and staff.



Biology + Schoolyard Ecology

"Seattle Audubon's FUN program (Finding Urban Nature), which typically depends on parent volunteers, used an innovative approach to help reach an additional school. FUN partnered with a Seattle University biology class to bring over 30 college students to help lead Bailey Gatzert's FUN lessons. This partnership promotes environmental education for both Bailey Gatzert and SU."
Faculty: Cheryl Wotus & Lindsay Whitlow

Math + Enthusiastic Tutoring

"Tackles math anxiety in young adults by designing courses that train university students in cultural competency and tutoring and pairs them with students at Bailey Gatzert Elementary School to provide academic mentoring. Tutors often employ a 'fake it 'til you make it' strategy, manufacturing an infectious mathematical enthusiasm."
Faculty: Allison Henrich

Civil Engineering + Pre-school Playgrounds

"The Residential Design Class exposes students to the process of building design and to basic building systems. Students created a children's playhouse in collaboration with the King Street Co-op Preschool as a service-learning project."
Faculty: Nathan Canney

Environmental Engineering + Middle School Aquaponics

"Engineers for a Sustainable World chapter partnered with Washington Middle School to teach Seattle youth about sustainable agriculture. The team of engineers built an aquaponics system for a science classroom. The system is composed of a 36 gallon fish tank and two half-50 gallon plant beds. The aquaponics process works through a symbiotic relationship between fish and plants."
Faculty: Phil Thompson

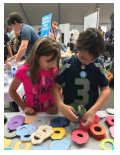
Mechanical Engineering + After School Exploring

"A group paving the path of connection to the community is our Bannan Scholars, who are 20-30 juniors and seniors in the college that receive the Bannan Scholarship. To receive the merit-based award, one must display exceptional academic performance along with demonstrating an involvement in service. In these after school programs, access to the STEM field is especially emphasized. Every week, four to five of the scholars commit to being at the school to teach and build up confidence within these children."
Faculty: Frank Shih

Physics + Public Astronomy

"Solar eclipse viewing on the roof of the science building. Using the telescope, they projected the progress of the eclipse, viewing glasses were passed amongst the crowd and some pinhole cameras rounded out the viewing options. Quite a crowd gathered and the feel was festive with everyone learning about and experiencing the wonder of the solar eclipse!"
Faculty: Joanne Hughes-Clark and Paul Fontana

Electrical & Computer Engineering + Local Maker Faire



"The Francis Wood Innovation Lab manned a booth at the Seattle Mini-Maker Faire. Over 600 mini lanterns were built by visitors to the booth. ECE students volunteered to help with the lantern building and talk with visitors."
Faculty: Rich Bankhead

+ Sustainable Power in Zambia

"KiloWatts for Humanity's solar-powered systems have produced over 9,500 kilowatt hours of life-improving electricity for underserved, at-risk communities. We transform lives by offering the safety and dignity of using electric lights instead of toxic kerosene, by creating local jobs, and by providing services such as refrigeration and access to information."
Faculty: Henry Louie