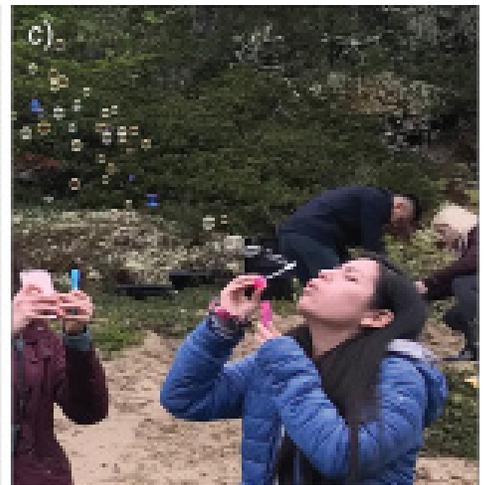


# PASSIVE HEATING IN OREGON?

**YOU BET!**

The Sustainable City Year Program helps Oregon communities to take advantage of their diverse climate resources.

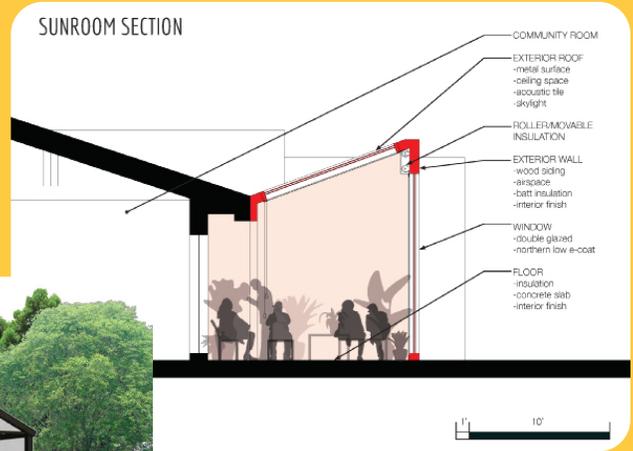
Oregon's varied climate has given students the unique opportunity to explore a variety of passive heating designs, from the predominately overcast Oregon Coast, to the Willamette Valley, to the subarctic climate of central Oregon.



## What is the Sustainable City Year Program?

The Sustainable City Year Program is an innovative university-community partnership program founded by the Sustainable Cities Institute (SCI) at the University of Oregon in 2009-10. In this unique model, existing courses, faculty, and students from across campus are purposefully directed toward a single Oregon community over an academic year to address vexing issues identified by the community. SCYP and the students, faculty, and communities it partners with are a shining example of Oregon innovation, leadership, and how leveraging resources can contribute to meaningful, additional, and society-wide value.

SCYP creates a conduit for translating knowledge into practice, and provides significant workforce development opportunity for students, adding 'hard' and 'soft' skills and hands-on experience to all levels of students' education. The vast majority of student outputs get incorporated into community plans and projects, which creates impacts on Oregon communities that are real and long lasting.



## Students Help Address Climate Change through Passive Heating and Cooling Coursework

As more SCYP partners recognize the implications of climate change and their imperative to address it, SCYP has engaged with Professor Alexandra Rempel to fill this need. Professor Rempel has spent more than a decade leveraging her expertise in building design and passive heating as a design professional and university faculty member. Her class is cross listed in the Colleges of Design as well as Arts and Sciences, and she has engaged with the SCYP partner cities of Albany, Dunes City, La Pine, and Silverton. Oregon's varied climate has given students the unique opportunity to explore a variety of passive heating designs, from the predominately overcast Oregon Coast, to the Willamette Valley, to the subarctic climate of central Oregon, which combines sunny, very cold, snowy winters with hot, dry summers.

The Passive Heating seminar designs building systems that take the greatest possible advantage of climate resources to provide space heating, replacing or supplementing active mechanical systems. Students work in small groups to identify opportunities and constraints for passive heating through site analyses, solar resource studies, conceptual designs, and performance simulations of passive heating systems. Students have had the opportunity to explore diverse interests of the SCYP partners, such as a future city center building and site, community greenhouses, prototypes for multi-family housing balcony sunspaces, an emergency shelter that also functions as a community gathering area; a city hall and police station, city-owned public restrooms, and a senior center sunroom.

Student-recommended design concepts proposed for these diverse projects are helping SCYP partners embrace the potential of passive heated structures and buildings, and often provide the basis for future funding requests to continue the work begun by students.