ARCH 4/510 Winter 2020

Water Infrastructure: Decentralized Solutions for the Future
CRN 20611 / 20706 - Tuesday 9:00-11:50am in WSB

Instructor: Crystal Ginnell

Course Description
Uncertain water supplies and aging water infrastructure are key challenges for countless cities. The future of water infrastructure will require that we diversify our strategies for obtaining, treating, and reusing water. This will include a shift towards decentralized strategies, including rainwater harvesting, onsite treatment for reuse, and resource recovery to capture valuable nutrients from wastewater. These strategies have significant implications at the building and site scale. This course is intended to educate students about a resource they use every day, including enough technical background to begin imagining how we can re-think water infrastructure. This course will provide a historic overview of water infrastructure in the United States, providing the basis for current and future water quality challenges. Students will gain a basic knowledge of aquatic chemistry, as it relates to public health, and an appreciation of the regulatory definitions of clean water. Students will examine contemporary, innovative, decentralized strategies used by precedent setting buildings and districts, intended to inspire the possibilities for current and future studio projects, and beyond.

Degree requirement fulfillment: Advanced Building Technology

Meets in Portland