

LA 4/559 -- STORMWATER PLANNING AND DESIGN

Spring 2021 with Professor Rob Ribe (4 credits)

Tuesday/Thursday 12:15 – 1:45, and Tuesday or Thursday 6:00 – 7:30 PM for local field labs



This class is open to students in environmental studies, environmental science, community and regional planning, landscape architecture, architecture, geography, geology, biology, or with instructor permission.

It will mainly be a learn-by-doing class where students will execute projects involving landscape analysis to recommend interventions in Eugene's landscape to improve water quality, river quality and reduce flooding.

The regular class will be instructed remotely until late in the term. There will also be weekly field labs to visit stormwater facilities and students' project sites where they will present their solutions at their study locations.

Students from landscape architecture and architecture will do projects that identify and develop draft designed interventions in or near streetscapes or creeks in southeast Eugene not far from campus.

Students from other majors will devise proposals to improve the structure, water quality and flood resilience of sections of Amazon Creek and its tributaries in southeast Eugene, as sought in the city's stormwater plans.

Grading will be based on the quality of term-long projects, how well these are presented in class all term, and attendance, including field labs. There will be no tests, but lecture content must be applied to projects.

The class will introduce the hydrologic theory and U.S. policy history behind watershed planning. We will learn essential methods of land analysis to plan for flood control and water cleansing. Common and emerging techniques of stormwater treatment and detention will be surveyed. Design and planning goals and standards will be explored. Readings will be drawn from plans and manuals available online and/or placed in Canvas.

The class will also introduce a planning theory specific to watershed and stormwater planning. This will form the basis for students' choices in identifying and selecting components and systems in their class projects.

Graduate students will do an extra project that analyzes a watershed plan from anywhere in the U.S. or their home country. They will also solve more challenging local stormwater planning analysis or design problems.

This class entails field work in Eugene. Students with limitations affecting such activity will be accommodated.