Premise: As human population increases, and humanity expands into new terrain, from mountains to sea, desert to forest, and as the climate changes and becomes more unsettled, calamities, both natural and human-caused, arise to evermore substantial impact. We as architects are increasingly tasked with creating resilient built environments that can meet these sometimes rapidly, sometimes slowly, changing conditions in a place, and which are prepared for and can respond to both foreseen and unforeseen challenges. For these architectural solutions to arise, we must carefully understand the potential challenges in any given place, and then develop and utilize new, flexible, adaptive strategies in designs and construction, at many scales, to manifest these resilient built environments. But beyond just being resilient with a greater ecology in which a project exists, the design should also be environmentally regenerative and in synergy with its place.

Project: The project for the studio will be a public education and research center focused on significant issues of potential natural and human-caused calamities, while demonstrating design and living strategies to provide for resilient responses with both built and landscape environments to those challenges, in a local area of interest to each student. The facility and its surrounding grounds will serve primarily as an educational platform for visits by the general public, and by groups of students at all levels, to learn about issues of and strategies for resilient design, while also providing a localized support center for research staff investigating and testing those issues and strategies. Depending on the specific site chosen by each student, there will be extensive outdoor program elements, supporting an indoor program of about 15,000 s.f.

Process: The early part of the studio will involve studying, through a series of individual field explorations, research and readings, the potential natural and human-caused calamities possible for the student’s selected location, while also documenting the baseline local contemporary ecological factors of the project site in a full range of environmental, economical, experiential and ethnological aspects. Students will also research precedent and best-practice design responses, at multiple scales, for resiliency to those discovered challenges for that place. From there, each student will develop an initial design concept incorporating those strategies, that will be adapted and tested through the term, later including sustainable and regenerative precedents and their response(s) to ecological factors, while students iteratively evolve their initial design. The work will conclude with fully documenting the design, and its ecological responses and synergies, based on the AIA-COTE Framework for Design Excellence and its Ten Measures of Sustainability.

Procedures: The studio will be held in-person, but using virtual desk and pinup spaces for group and individual student work, built on a robust platform of digital, real-time interactive whiteboards, and may also, on occasion, use parallel web-conferencing for audio and video interaction. This will allow dynamic flexibility and continuity for interactions in the class, to be resilient with individual life/health circumstances that may arise, or shifts in UO and/or SAE Covid-19 protocols. We will meet in studio during scheduled studio class hours, with some portions of the class directly interactive and synchronous, while other portions will be based around exercises and assignments that can be done asynchronously. The studio will include a combination of readings, presentations, possible field trips, and dialogues with outside project-related parties, in addition to large- and small-group and individual discussions about project conception, design, development and documentation.