

Course Description: ENVS 80.4: Computational Toolbox for Environmental Sustainability

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Instructor: Gwen Spencer, Neukom Institute Postdoctoral Fellow

Fields related to ecology and the sustainable management of natural systems increasingly employ computational modeling. As the impetus to understand how our society can function more sustainably becomes more pressing, and the ability to gather data on natural and human systems explodes, basic scientific knowledge must be translated into actionable insights. The intersection of computing and the social and ecological sciences is an exciting growth area for researchers, students considering interdisciplinary graduate study, and future green-consultants. This course aims to provide an accessible introduction to some basic techniques useful in understanding a range of contemporary environmental issues in natural resource management (forestry, fisheries), conservation, biodiversity, invasive species, and including topics around the design of efficient systems (public transportation, greener energy/infrastructure, water resources etc).