SUSTainability across the curriculum

(Focus group discussion with faculty members who teach SUST courses, Fall 2020)

Mahalo for joining our open house.

Please peruse this document and share your thoughts and experiences from the SUST cross-listed courses you have taught.

 Add your course (e.g., SUST 101 or DEPT 101) to the right-hand columns if your course covers any of these topics ~

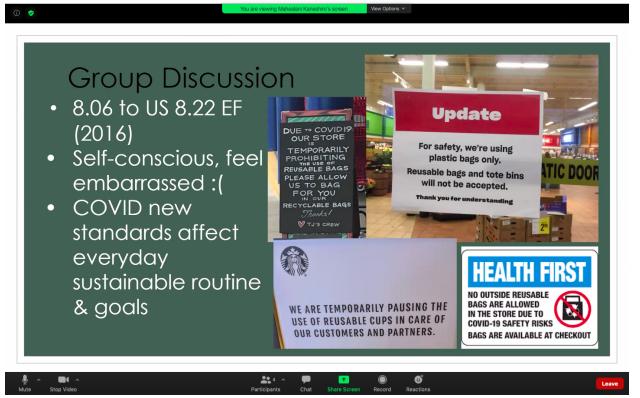
Topic	I teach a course that touches on this	I teach a course that focuses on this
Environmental Policy and Management	GEOG 426, ERTH106	POLS 385, NREM nnn OCN321/PPC/340/SUST 323 PLAN/SUST 620
Food, Energy, and Water (FEW) Systems	NREM 251	ERT106, NREM 251
Globalization and Sustainable Development	POLS 385, GEOG 426 PLAN/SUST 620, NREM 251	NREM 251
Sustainable Island Ecosystems	POLS 385, NREM 251	ERTH106, NREM 251
Environmental Justice and Ethics	POLS 385, ERTH106 PLAN/SUST 620, NREM 251	GEOG 426, NREM 251

Enter a topic not listed above

- GEOG 426: Politics of nature / environmental philosophy
- POLS 385 Politics of nature
- NREM 251 Hawaiian place of learning, science communication
- 2. What do you think are the most critical lessons students are getting from your SUST course? Type your thoughts in the box below ~
- GEOG 426: Develop an appreciation for how debates surrounding the environment and resources have shaped and been shaped by social categories and concerns.
- POLS 385/SUST nnn: Giving political economy/political practice perspective to environmental issues
- ERTH106: how Earth systems are connected, what natural hazards humans face, how natural resources are formed and used, how climate change affects natural resources and humans.
- SUST323: Students gain experience with identifying appropriate methods and techniques on how to estimate and measure effectiveness through quantitative

- metrics (e.g., CO2 equivalents, fossil fuel usage, green jobs created, new construction expenditures, ozone precursors) in all areas affected by the policy. Students also learn how to use analyses and policy context to shape selection of the means to execute environmental and energy policy
- PLAN/SUST 620: linking complexity theory, ecology, and policy and planning.
 The students learn how to use tools like scenario planning to develop plans for wicked environmental problems.
- NREM 251: Intersection of ecology, economics, and society. Base knowledge scientific principles of sustainability and guest lectures share real life applications.
- 3. In what ways are students coming **prepared** for your SUST course? *Type your thoughts in the box below* ~
- GEOG 426: Strong interest in sustainability issues (such as vertical farming, climate change, geoengineering, desalination, indigenous resource management etc).
- SUST 323: Students have assignments and source materials in Laulima prior to class and afterwards they have access to the powerpoints of the lectures to prepare for the next class.
- ERTH106: very invested in learning how to be a better citizen, already had some class related to SUST
- PLAN/SUST 620: the two SUST students I had enrolled had a very strong natural science background
- NREM 251: very receptive to active learning.
- 4. In what ways are students coming **unprepared** for your SUST course? *Type your thoughts in the box below* ~
- GEOG 426: Limited knowledge of geographic theories (i.e. human geography vs physical geography, political economy/ecology).
- ERTH106: students are afraid of using numbers and getting more quantitative
- SUST 323: many students are unaware of the complexity and mechanics of public policy and policy implementation.
- NREM 251: Not used to the structured environment and turning in assignments on-time.
- POLS 385 (SUST students) ... underlying knowledge of political systems and processes. Over-investment (in my point of view) in individual-based solutions
- 5. What assignments, projects, or class modules have been the most useful or productive for students? *Type your thoughts in the box below* ~
- SUST 323: Case studies on actual governmental policies enacted with inside information on how the policies were formulated, the policy intent and challenges as the policies were formulated and executed by applicable deployment agents. Some assignments require a two-page memo with specific requirements for how the memo must be structured, with a problem statement and recommendation. Examples include: 1) QER

- review; 2) HI Refinery Task Force summary; 3) Act 234 analysis; 4) ICCT report review; and 5) Texas Plan for Clean Air.
- GEOG 426: 1) Week 1 Flipgrid exercise based off of Cronon (1996) where students bring an object and explain why it signifies nature to them. Then in Week 2, we deconstruct the socio-cultural histories/norms that lead to the signification of that object as nature. 2) Take A Stance on Geoengineering assignments where students present a 4-5 minute video outlining support or resistance to geoengineering drawing from academic sources in any relevant discipline, 3) A scaffolded Issue Review / position paper assignment culminating in a final position paper on a specific environmental controversy of a student's choice.
- POLS 385: Topic directed policy position papers
- ERTH106: we examine water quality in Manoa stream and students have to evaluate sources of problems and suggest solutions
- PLAN/SUST 620: individual case studies in which they construct one term paper over the semester in five scaffolded steps. Presentations that require them to link daily content with their case. I teach the basics and they teach their classmates how a technique or idea is applied in practice.
- NREM 251: group work assignments during synchronous classes.
- 6. If you've taught the same class before having a SUST cross-list, how has your course experience changed (e.g., student composition, enrollment)? Type your thoughts in the box below ~
- ERTH106 I am changing my class continuously through incorporating more SENCER aspects; enrollment increased
- NREM 251: no changes. This class has always been high enrollment.
- 7. Any other comments, questions, or suggestions about SUST courses? *Type your thoughts in the box below* ~
- Quantified measures of SUST deliverables is important.
- In retrospect it would have been useful to have a chat like this __before__ I taught the SUST courses would have been good.
- Really appreciate the opportunity to cross list with SUST as this increases enrollment and the variety of student perspectives in the course



Example of flipped classroom exercise (SUST 251)