ENST 94302 – Technology & the Environment

Meeting Times: Monday 9:30 AM – 12:15 PM — Robinson 315L

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Office hours: by appointment — Robinson Hall 315C

Texts

- Cabin, R. 2013. *Restoring Paradise: Rethinking and Rebuilding Nature in Hawaii*. Univ. of Hawaii Press.
- Carson, R. 2002 [1962] *Silent Spring*. Houghton Mifflin Co.
- Cohen, S. 2014. *Understanding Environmental Policy, 2nd ed*. Columbia Univ. Press.
- Cronon, W. 1992. *Nature's Metropolis: Chicago and the Great West.* WW Norton & Co.
- MacBride, S. 2013. *Recycling Reconsidered: The Present Failure and Future Promise of Environmental Action in the United States*. The MIT Press.
- Rome, Adam. 2001. *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism.* Cambridge University Press.
- Schneider, D. 2011. *Hybrid Nature: Sewage Treatment and the Contradictions of the Industrial Ecosystem*. The MIT Press.
- Sumantran, Venkat, Charles Fine, and David Gonsalvez. 2017. *Faster, Smarter, Greener: The Future of the Car and Urban Mobility*. The MIT Press.
- White, Richard. 1995. *The Organic Machine: The Remaking of the Columbia River*. Hill & Wang Publishers.
- Other readings will be on Blackboard or else be able to be tracked down with library resources.

Course Description from Rowan Catalogue

"This course examines the relationships between technology and both natural and human environments. We will consider multiple spatial and temporal scales ranging from huge infrastructure projects like dams and the sweeping environmental impacts they introduce to the frontiers of genetic modification, working on individual cells. The format of the course emphasizes discussion, active learning, multimedia analysis, critical & analytical writing, and conducting a research investigation into a topic of your choice related to the class. Students will develop fluency in the critical assessment of technologies, the policies and practices creating them, and the impacts they make on the human environment relationship. 3.000 Credit hours"

Course Learning Outcomes

A course description can be useful, but it doesn't always address the **purpose** of the course. Sometimes students (and professors) get frustrated when they feel like they don't know what the purposes of a course are or why they are doing what they are doing. I want to avoid this by letting you know, right away, what the goals of this course are:

- Articulate linkages between changing technological regimes and political-economic systems.
- Improve critical analysis and communication skills (both written and verbal), including communication in digital environments.
- Develop your personal philosophy on the relationship between technology, the natural environment, and human society.
- Understand the roles of technology in defining, causing, and addressing environmental problems.

Course Organization and **Tentative** Schedule

At Rowan, class sizes are typically smaller than those at other public universities. This is a good thing; it gives us a chance to get to know one another. It also opens up opportunities for discussion, collaboration, and active learning. These things will form the core of each class meeting, so instead of listening to me lecture the whole time, we will build our understandings of course topics individually and collaboratively through a variety of activities. **If you don't want to participate in these sorts of activities, in each class session, this may not be the course for you.**

Week	1st part of class	2nd part of class	Readings Due
1 (1/28)	Welcome to T&E!!	What is technology anyway? And how does it relate to the environment?	A selection of articles and book chapters (posted to Blackboard)
2 (2/4)	Jordan Example Readings Presentation and Discussion	Technology and policy; how to dissect research articles and books	Cohen, *Understanding Environmental Policy*
3 (2/11)	Readings Presentation and Discussion	Agriculture and technology: changes to the land	Cronon, *Nature's Metropolis*
4 (2/18)	Readings Presentation and Discussion	Agriculture and technology: chemicals, additives, GMOs; *Genetic Roulette* film	Carson, *Silent Spring*
5 (2/25)	Readings Presentation and Discussion	Urban environments: water and water systems	Schneider, *Hybrid Nature*
6 (3/4)	Readings Presentation and Discussion	Urban environments: waste and materials	MacBride, *Recycling Reconsidered*
7 (3/11)	Readings Presentation and Discussion	Urban environments: transport and mobility	Sumantran et al. *Faster, Smarter, Greener*
8 (3/18)	-- *No Classes! Spring Break* --		
9 (3/25)	**Class Project-Exam 1**	Film screening: *Who Killed the Electric Car?*	---
10 (4/1)	Readings Presentation and Discussion	Infrastructure & landscape: housing	Rome, *The Bulldozer in the Countryside*
11 (4/8)	Readings Presentation and Discussion	Infrastructure & landscape: natural resources and landscape modification	White, *The Organic Machine*
12 (4/15)	Infrastructure & landscape: energy technologies	Film screening: *Windfall*	A selection of articles and book chapters (posted to Blackboard)
13 (4/22)	Readings Presentation and Discussion	Infrastructure &landscape: landscape restoration?	Cabin, *Restoring Paradise*
14 (4/29)	**Class Project-Exam 2**	Peer evaluation of project drafts	---
Finals Week	Final draft of "Technology in the Wild" Essay-Project due 5:00 pm day of scheduled exam period. Project Presentations during Exam period.		

Class Etiquette *(adapted from Dr. Lesley Rigg)*
Students are entitled to and deserve respect, courtesy and tolerance, regardless of their race, background, religious affiliation, gender, sexual orientation, disability or any other perceived difference. Likewise, faculty, staff and fellow students deserve the same treatment. Therefore, within this class community, regardless of the mode of communication, every effort will be made to

create a safe haven for diverse thoughts and communication. For more information, see the University "Classroom Behavior Policy and Procedures" document: http://www.rowan.edu/provost/policies/documents/ClassroomBehaviorPolicy.04.12_001.pdf

Course Policies

- Attendance policy: I take attendance as a means of tracking participation. You do not earn points simply for being in class! If you are unable to attend class for some reason, let me know ahead of time (if you can). Also please know that I will not post notes or lectures online; that it is **your** responsibility to track down notes and the details of in-class activities and discussions from a classmate; and that even if you miss a class you still need to complete the readings assigned for the day and turn in any assignments due that day. **Please arrive to class on-time.** If you are late for some reason please come in quietly and don't disrupt the class. The University's attendance policy is available here – read it! http://www.rowan.edu/provost/policies/documents/AttendancePolicy-FacultyStudentsResponsibilities5-31-12_001.pdf

- Cheating and Plagiarism: Don't do either of these; it is a waste of your time, a waste of my time, and extremely disrespectful to me and your classmates. It may also get you into serious trouble with the University. We can discuss academic integrity in class. In the meantime, be sure to read the full University policy on 'Academic Integrity' available here: http://www.rowan.edu/provost/policies/documents/2011_AcadInteg_policy.pdf
    - All assignments you submit for this class, via Blackboard, will be automatically evaluated using the "Safe Assign" software package to evaluate potential instances of plagiarism.

- Computers and mobile devices: We may use these in in class to complete an assignment or activity, and many of you may use these items to take notes. That is OK with me, but don't distract yourself or others from the material and interactions of the actual course meeting. At any rate, this course represents just a few hours a week where you should take a break from txting, fb, the twittersphere, snapchat, etc – it's good to take a break every so often. Also I will adhere to the university policy: "The use of laptop or notebook microcomputers and other mobile electronic devices for classroom activities is allowed at the discretion of the instructor or in the case of a documented disability. The use of such electronic devices should not be a distraction to other students or the instructor. Students are expected to use electronic devices only as part of ongoing class activities. If an instructor believes the use of electronic devices is detrimental to the learning environment or gives any student an unfair advantage, then the instructor may prohibit their use at any time. Also, the use of any device for purposes of audio or video recording may occur only with the prior approval of the instructor."

- E-Mail Policy: No doubt, email is the best way to reach me. I will do my best to respond to your emails within 36 hours, though I cannot make any guarantees. **You can help me answer your email by adhering to the following sample:**

    Subject: Question about Assignment/Exam/Issue

    Greetings/Hey/Dear Professor/Jordan/dude,

    I was hoping for clarification about this specific issue. I understand parts X and Y, but part Z is really making me confused. Should I think about it according to A, or is B a better approach? Also, I'm not quite sure when the assignment is due – it doesn't say on the page, and I don't believe you mentioned it in class.

Thanks/Sincerely/Peace out,

First Name Last Name
Name of course you're in with me

If, instead, you send me an email with no subject, don't have a specific question (for instance, "What are we supposed to do for this?" is a horrible question to ask your professors via email), don't include your name, or the formalities of human communication (greeting, parting words), that gets really annoying, really fast, and it takes me longer to respond and I may not actually be answering the question you want answered anyway!!!

- Late assignments: Please turn assignments in on time! Assignments are due at the start of class either in hard copy or electronically, as directed. Late assignments will be accepted for feedback, but not for any credit (even partial credit) without having made prior arrangements or due to university-excused absences. **The single biggest reason why people fare poorly in this class is because they do not turn things in. Don't let this happen to you!**

- Readings: If readings are not from the assigned texts, then they will be available electronically for free. In this class, you may be responsible for tracking down journal articles and book chapters on your own. **In any case, readings are to be completed *before* class meetings.** Please note that while we may not discuss all aspects of a given reading in class, you are responsible for all assigned readings for exams, including any information from charts, maps, and other graphics.

- Special accommodations for religious observances: From the University policy on attendance, "Rowan respects the diversity of faiths and spiritual practices in the university community. Students who wish to observe religious holidays which occur when classes are scheduled must inform their instructors before the fact, and preferably within the first two weeks of each semester, even when the exact date of the holiday will not be known until later. Students who make such arrangements will not be required to attend classes or take examinations on the designated days, and faculty must provide reasonable opportunities for students to make up missed work and examinations." I am happy to abide by this, but please help me out with specific dates and information; I may not be familiar with all of the important observances in your faith life!

- Students with accommodations from Disability Resources: From of the Office of Student Affairs, "Students requiring accommodations should contact the Disability Resources office upon receiving an acceptance letter or when a disability is identified." You can access more information here: http://www.rowan.edu/studentaffairs/asc/disabilityresources/

Everyone is welcome in the University and I am happy to work with you.

Assignment Breakdown

1. Readings Presentation and Discussion Leadership = 30 points
2. Class Project-Exams 2 x 30pts each = 60 points
3. Critical Reviews of Texts 8 x 20pts each = 160 points
4. "Technology in the Wild" Research-Essay Project = 100 points
5. Participation in Class Discussion and Activities = 50 points

Grading Scale

100 – 90%	A, A-
89 – 80%	B+, B, B-
79 – 70%	C+, C, C-
69 – 60%	D+, D, D-
59 – 0%	F

Your grades will be updated regularly on Blackboard. It is important for **you** to understand the grading system. The class is scored out of **400** total points. Nothing is 'weighted' or anything like that. You can easily keep track of your progress in the class yourself using Blackboard. If you have a question about your grade, you should ask me and I will be happy to help you.

Some Advice and Final Words:

- The single best way to succeed in this course is to attend each class meeting, fully prepared and ready to participate. It is also the best way to really 'get something' out of the course.
- Don't approach your college education as a transaction, where you pay money and time to get grades and a degree. The journey is just as important as the destination.
- In a 2013 survey of 318 employers, a strong consensus emerged that capacities like critical thinking and project management skills that cut across all majors (**like the stuff we will do in this class!!**) are more critical to career success than a student's choice of major…you can learn something valuable for your future career in any and all classes you take! (AACU, *What Do Employers Want from College Graduates?*)