

Participants 2012 - Trillium Workshop: Sustainability Across the Curriculum

Bohs, Larry

Lecturer, Biomedical Engineering

Why?

Because I believe that we all need to make big changes to solve the world's problems.

Specific course (if applicable):

BME 460 (formerly 260)

Thoughts as to how sustainability might be incorporated?

My class is a student design course for seniors in Biomedical Engineering, who build devices to aid people with disabilities. My first thought is to make the use of materials in the lab more sustainable -- to recycle all waste, consider life of materials chosen, minimize waste. Ideally, make the lab (and class) "trash free".

Brasier, Chris

Adjunct Faculty, Civil and Environmental Engineering / Pratt School of Engineering / Duke University

Why?

I am attracted by the opportunity to learn about how instructional technologies may be leveraged in increase sustainability in teaching.

Specific course (if applicable):

Architectural Engineering CE 161

Thoughts as to how sustainability might be incorporated?

The course is focused on providing students with an understanding of the building design and construction process with a focus in the Fall Semester on materials and methods. I believe there may be a number of ways to increase the course's sustainability content by exploring connections to other resources that exist on campus. For example, Biomimicry is an area that biologist and material scientist have been collaborating on more sustainable approaches to the built environment. Architecture and Engineering students could learn a great deal by examining the work occurring in other disciplines and looking for potential inspiration or connections to their projects.

Brooke, Martin

Associate Professor, ECE

Why?

I own a small organic farm and would love to somehow incorporate that side of my life into my work life.

Specific course (if applicable):

ECE 135, + ECE new design course

Thoughts as to how sustainability might be incorporated?

I teach two ECE electronics and signal processing design courses. I control the projects worked on and have been seeking appropriate projects to encourage the students and my interest in sustainability. Electronics manufacturing practices are currently some of the worst from a sustainability standpoint, lots of chemicals, lead, and other metals, and plastics involved then all those iphones ending up in the trash.

Capps, Tavey

Environmental Sustainability Director, Sustainable Duke

Why?

Sustainable Duke is always looking for ways to incorporate more of our operational sustainability efforts into the learning objectives for academic courses. I think this workshop and the community would be helpful to us as we work on this goal.

Comer, Denise

Director of First-Year Writing, Assistant Professor of the Practice, Thompson Writing Program

Why?

I would like to learn ways of fostering sustainability in my teaching and also in my mentoring and support of all TWP faculty. I teach a section of Writing 101 each term, but, in my capacity as Director of First Year Writing, I lead a seminar for incoming TWP faculty on teaching writing, and I supervise and mentor TWP faculty through class visits and reviews. I would like to be able to integrate sustainable practices in all these endeavors and encourage our faculty to reflect on and generate sustainability themselves with Writing 101. We have the unique position of reaching every first-year undergraduate at Duke and I think we, as a unit, can make an impact by modeling, fostering, and thinking about sustainable practices.

Specific course (if applicable):

Writing 101, Academic Writing (my section but also all sections); Postdoctoral Summer Seminar in Teaching Writing; Writing 70, Introduction to Critical Writing

Thoughts as to how sustainability might be incorporated?

Develop sustainable strategies for writing, revising, and workshopping by reducing the use of paper. Rethinking the environmental costs of book orders, pedagogical practices, etc. Considering possible programmatic initiatives that involve writing and sustainability, or service possibilities related to writing and sustainability.

Cousart, Laurie

Senior IT Analyst, Duke University Card Office. Previously Director Sustainability, University of Pennsylvania

Dunning, Rebecca

Visiting Assistant Professor, Sociology

Why?

I am interested in sustainability from the policy side--how to incorporate sustainability concepts into mainstream thought (so that it becomes an internalized referent for policy decisions), and also in sustainability as a social/political issue (for example, the politicization of sustainability, such as all the recent hub bub about how sustainability is thought by some to be a code-word for world government). I'm interested in being involved in the learning community so that I can be in conversation with others who have similar interests.

Specific course (if applicable):

Organizations/management SOC355

Thoughts as to how sustainability might be incorporated?

My initial thoughts are to include 'triple bottom line' type information in the course. But what I'd like to do is to have sustainability link to many topics across the semester, rather than having it as a one/two day lecture. I'd like to think about how to have sustainability as an underlying theme, and to incorporate it in a way that both connects to the topics, and connects to the students.

Gaston, Jim

Director, Duke Smart Home, Pratt

Why?

I am interested in learning about sustainability and ways to incorporate sustainability into the Duke Smart Home Program.

Specific course (if applicable):

EGR 185

Thoughts as to how sustainability might be incorporated?

ways to use recycled materials in class projects

James, Doug

Assistant Dean for Academic Affairs and Coordinator, Preparing Future Faculty, The Graduate School.
Trillium Fellow 2010

Kumar, Mukesh

Assistant Professor, Environment Sciences/ Nicholas School of Environment

Why?

I am interested in knowing about sustainability initiatives across Duke. I would like to know more about the work of my fellow colleagues and researchers to understand the various ways sustainability can be

integrated in course curriculum. I want to lead sustainability initiatives through my research and teaching, and impart sustainability education to my students.

Specific course (if applicable):

ENV 298 (Hydrologic Modeling for water quantity and quality assessment)

Thoughts as to how sustainability might be incorporated?

*I teach courses on using GIS and Hydrologic models for Water Quantity and Quality Assessment. One of the goals of the course is evaluation of sustainability of water resources. My intention is to design class labs and homework assignments to provide students with hands-on-experience in tackling water quantity and water quality issues. Specifically, the assignments would be geared towards evaluating best water management practices, and evaluating their sustainability in long and short term. I would also include content that will highlight the impact of changes in land use/land cover and climate on water sustainability. We will also work on toolsets that will help evaluate comparative efficiency of alternate water management solutions. For the course projects, students will be encouraged to take up "real life" examples and to come up with best solutions to mitigate science and management challenges related to adverse spatial or temporal distribution of water.

Nowlin, Michelle

Supervising Attorney and Sr. Lecturing Fellow, Law/Nicholas School

Why?

I'd like to contribute to and learn from collaborative, inter-disciplinary discussions about the scholarship and politics of environmental "sustainability," and develop innovative methods for incorporating these concepts into my academic and practice-oriented work with students. Despite the vast body of laws addressing the environment, development, agriculture and food (my areas of work), there is no body of law directed specifically to the concept or practice of sustainability. However, there is potential to develop sustainability as a common theme linking these different bodies of law, and I'd like to explore that possibility through discussions and collaborations with others.

Specific course (if applicable):

Environmental Law and Policy Clinic, LAW.443.02/ENVIRON 369

Thoughts as to how sustainability might be incorporated?

The Clinic has both a lecture/seminar component and a practice component, in which students work in teams with a non-profit client on a legal, regulatory or policy matter. The seminar component is required cover certain aspects of professional responsibility, ethics, and skill development, but there is latitude to address broader themes, such as environmental justice or sustainable development, as well. Developing either a specific set of readings and classes, or a way to thematically link the course through the lens of sustainability, is something I'd like to explore. In addition, it might be possible to look for specific cases that would offer students practical experience in this field. In addition, I just started teaching a class on Food Law and Sustainability (Law 636.01), and I'd like to consider how to better develop the syllabus so that it looks beyond production methods to address packaging, labeling, marketing, community economic development, and food safety. We were able to do some of that in the

class (especially on production methods), but it was much more difficult to address these other topics than I'd anticipated.

Salvatella de Prada, Raquel

Assistant Professor of the Practice of Visual Arts, Art, Art History & Visual Studies

Why?

To learn about Sustainability in teaching and from other faculty

Specific course (if applicable):

Artsvis 206, AMI 322s

Thoughts as to how sustainability might be incorporated?

First thing that comes to mind is through a project that can make students (and viewers of their work) aware of such responsibility.

Schaad, David

Assoc. Prof. of the Practice and Assoc. Chair, Civil and Env. Eng./Pratt

Why?

Sustainability is critically important to the campus community, both from a learning objective as well as a research focus. I am interested in exploring this in more depth from similarly minded colleagues where I can learn and contribute.

Specific course (if applicable):

Construction Management

Thoughts as to how sustainability might be incorporated?

With LEED certification becoming a relatively hot topic in the industry, want to make sure that sustainability is given a central focus in the course.

Sease, Tony

Instructor, MEM/Nicholas School

Why?

I am interested in participating in the Trillium Fellows for several reasons. First, I am interested in how other faculty members address sustainability in terms not just of the topical material in respective courses, but in relating sustainability issues explicitly to actions and choices students make in their personal and professional lives. As an architect and civil engineer (E'91) I am obviously interested in the built environment from an intellectual and design perspective, but I would like to know of parallels in other disciplines regarding relating materials directly to personal experience. Are there particular methods such as observation, field trips, walking and/or transit use as a part of class experiences, for instance, that others have used? How are our existing surroundings, either Durham or elsewhere, incorporated as laboratories or settings through which to consider and assess sustainability indicators and direct outcomes? How are issues of equity included in the sustainability practices being discussed,

i.e., how are others addressing sustainability comprehensive, rather than in a limited environmental or economic context.

The setting of the Freeman Center and the Smart Home is an ideal venue for me to pose certain considerations I attempt to incorporate into my courses. I look forward to the responses and thoughts others have about especially the Smart Home as both an example and a teaching laboratory.

Lastly, I am eager to engage with others who are interested in sustainability across various disciplines. A key dialectic I would like to explore is the tension between disciplinary specializations, often encouraged by academic and organizational structures, and the multidisciplinary character of many of our most vexing environmental and social questions. How do others effectively pursue interdisciplinary, collaborative research and teaching?

Specific course (if applicable):

ENVIRON 590.37 Sustainable Cities and Urban Design (Old Course # ENVIRON298.37)

Thoughts as to how sustainability might be incorporated?

Clearly broad interest exists in moving to paperless teaching and reading. However, as a designer, a hugely important aspect of my courses in the built environment has been use of a sketchbook, and use of drawing assignments to allow students from diverse disciplinary backgrounds to begin to engage with questions of scale, representations of places they now, and what Australian architect Glenn Murcutt refers to as "drawing as an act of discovery." I would like to explore other teaching methods that may allow the same tactile processes and learning benefits.

I would also like to extend not just from my existing course, but to think about new interdisciplinary courses that can engage sustainability and the built environment, especially around water. As a PhD student in the Department of City and Regional Planning at UNC-Chapel Hill, my dissertation research will focus on the intersection between water and urban design. I am pursuing the PhD precisely out of an interest in the interdisciplinary aspects of the built environment, and a desire to find ways to engage these questions in both teaching and research.

Smith, Randy

Manager, Department of Biology, Biology/A&S

Why?

Part of science education should be able how to minimize the environmental impact of scientific research. Our science buildings are the most resource utilization intensive buildings on campus and contain most of our hazardous chemicals. The next generation of scientists and engineers needs to be educated on best practices. Why not start at the beginning of their education?

Specific course (if applicable):

Bio 201L, 202L, 701 and 702

Thoughts as to how sustainability might be incorporated?

For Bio 201L and 202L, I'd suggest short topics in the lab sections scattered throughout the semester. For 701 and 702, both graduate level courses, I'd suggest a one hour seminar/discussion class.

Eileen Thorsos

Energy Efficiency Analyst, Sustainability Office, City and County of Durham, NC. Duke University Master of Science in Ecology, December 2011.

West, Yvette

Director, Advanced Clinical Practice, Duke Hospital, ACP

Thoughts as to how sustainability might be incorporated?

I feel woefully inadequate to state how I can add sustainability to the field of nursing, and geriatric nursing specifically. I hope that attending this workshop will benefit my knowledge base and my curriculum.