The Science and Sound of Water
Bio/ENVS/Music
M, 1:00-4:00, MSC W507 (first meeting in Burlington Road Bldg., Room 109)

Professors
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Readings
Fresh Water, E.C. Pielou
Selected readings

Where this course comes from
How do you transform the culture of a place?
How can we convince Emory, a place driven by pre-professional and professional thinking, to take a leading role in saving the earth *and* making it a better place to live, to realize in fact that thought and action on issues of sustainability and the environment are essential and should be integrated into their careers and professions?

Seven years ago and each summer since, 20 different faculty from across the university have met to help catalyze just such a transformation. These were faculty from across many diverse disciplines, from Philosophy to Medicine, from Literature to Biology, and from Theology to Spanish and Business. To date, nearly 100 faculty have taught thousands of students the new ideas generated from these meetings, called the Piedmont Project (Emory is in the Piedmont region of Georgia). Dozens of universities are also adapting this model.

The Piedmont Project helps catalyze many new initiatives, courses, and ideas at Emory and around the nation, including the new Emory Office of Sustainability.

The Project also provides faculty like us the chance to meet each other and see how our disciplines integrate. A Water Course was born. Its first incarnation was taught a couple of years ago, and this course is its second.

Goals of the course
<u>Conceptual</u>
•To get you out of the traditional classroom, both literally and conceptually.
- We will have on- and off-campus fieldtrips and encourage you to spend time outdoors for your projects and in general.
•To use Water as a way into discovering the vital links and ways of thinking that move at the interface of natural science, social science, and the humanities.
-In addition to the course being taught by a musical anthropologist, a geologist/environmental scientist, and a molecular geneticist, we will welcome scholars from physics, literature, philosophy, and other areas.
-Most importantly you will nurture your ability to integrate diverse ways of thinking, demonstrating them in your writing and course projects.
•To demonstrate how the complex problems of today's world require such ways of thinking if there's any hope they'll be solved.
•To raise awareness of Emory's own water, its water issues, how you can help Emory develop as a model consumer and partner of water.

-You will be part of Emory's new Storm Water Management Program, working with scientists and consultants to help shape and explore this major water issue at Emory
•To integrate ways of communicating—reflective, email, essays, performance, discussion, small-group projects—to translate what we learn and think to each other *and the greater community*.

Informational
•To consider and learn:
-The vital geologic, biologic, and anthropologic roles water plays in the lives of our species and the earth as a whole.
-What characteristics of water make it so vital and why?
-What is the water cycle and how is it relevant to life, health, healing, music, culture?

Communication: Learnlink and Blackboard
Especially since formal course time happens only once a week, our Learnlink and Blackboard sites will take on special importance for updating projects, informal conversation, groupthink, posting thoughts and reflections, etc.

Outside of class time, these sites are the major opportunity for you to contribute to the course, and a major part of your evaluation in the course is participation/engagement.

Work/Evaluation
Participation/engagement (35%): The course meets formally only 13 times. So, show up those 13 times and then get engaged. We have a diverse and strong group of students; get to know them and their ideas. Think, contribute.

•Water Journals: These are a key part of your participation grade. We will ask you to post entries from them periodically on Blackboard, but they are primarily meant for yourself as a way into your own imagination. At the start of most classes we will have a 'Water in our Lives' kind of jam session drawn from the journals in which you will discuss ideas, articles, etc. related to water that you've run across since the last class.

Responses (25%): You will write short response essays to our trips, classes, speakers, and other events to post on BB.

Projects (40%: 5% of this 40% will be your Progress Report, due March 26): The heart of the course, to be presented on the last day. Groups of 3 students, ideally with diverse interests and expertise, will develop and present projects which grow from the Storm Water Management Plan, but from many angles. They will be grounded in the place Emory and involve multimedia: performance, video, audio, poster. . . See the Day by Day outline below for key dates*: when you will have your partners and topics chosen by, when project proposals are due, when the progress report is due, and the date of the actual presentations.

Day by day
Jan 22

Gamelan (Meet at Burlington Road Building, Room 109)
Water walk to Lullwater Park ~ Hydrologic cycle ~ Natural cycling of water
Observing the natural and the built environments
Introductions
For next week ~ check out cameras for audio/video recording of next week's stream field trip. **Be ready to discuss Water Journals and readings.**
Read through a few sections in Pielou: Chapter 1: The Water Cycle
Chapter 2: Water Below the Ground: Groundwater pp5-14
Chapter 3: Groundwater in Use pp31-38, 50-55

Jan 29

Field Trip to Stone Mountain Park
Recording Water Sounds ~ Observing Water Movement ~ Getting into the water
Informal discussion of Water Journals and readings during field trip.
For next week ~ Read through in Pielou: Chapter 5: Flowing Water: Rivers and Streams.
Be ready to discuss Water Journals and readings.

Feb 5

John Wegner ~ Emory Campus Water Tour
Stormwater management and stream restoration
Discussion of Water Journals, Water Tour, and Readings
For next week ~ Read through in Pielou: Chapter 7: Lakes pp 149-156
Chapter 10: Wetlands. **Be ready to discuss Water Journals and readings.**

Feb 12

Discussion of Water Journals and Readings
The Physics of sound ~ Kurt Warnecke
Storm Hydrographs ~ Recording How Streams Change During Storms
David Suzuki film ~ The Green Zone
For next week ~ Be ready to discuss Water Journals and any posted readings. Groups will announce their Water Project topics

***Feb 19 ~ Groups announce topics for their Water Project ~**

Discussion of Water Journals, Project topics, and Readings
Biology and Healing of Water and Sound
For next week ~ Read through Chapter 6: Rivers at Work in Pielou
Be ready to discuss Water Journals and Readings

Feb 26

Discussion of Water Journals and Readings
Water Carved Landscapes
Andy Goldsworthy ~ Movie: Rivers and Tides
Linda Armstrong ~ Sculpture
Painting with Watercolors ~ Woody Hickox
For next week **~ Be ready to discuss Water Journals and any posted readings. Water Project Proposals are due.**

***March 5 ~Water Project Proposals are Due~Groups Discuss Proposals in Class ~**

Discussion of Water Journals
Water and Sound in Literature and Poetry ~ Walt Reed
For next week ~ Your Choice!

March 12 ~ Spring Break

March 19

Discussion of Water Journals
World Water Day ~ Global and Local Water Use
http://www.unwater.org/wwd07/flashindex.html
Rick Rheingans ~ Water Scarcity

Tour of Water and Sound Related Objects at Carlos Museum
***For next week* ~ Be ready to discuss Water Journals and any posted readings. Progress Reports on Water Projects are due.**

***March 26 ~ Progress Reports on Water Projects are Due ~**
~Groups Discuss Their Progress in Class ~
Discussion of Water Journals
Philosophical Perspectives on Water and Sound ~ Jack Zupko
***For next week* ~ Be ready to discuss Water Journals and any posted readings**

April 2
Discussion of Water Journals and Readings
Sound, Emotions, and the Environment (Papua New Guinea)
Donna Maney ~ Bird Sounds and Communication
Human Physiology
For next week ~ Read through Chapter 9: Dams, Diversions, and Reservoirs in Pielou. Be ready to discuss Water Journals and Readings.

April 9
Discussion of Water Journals and Readings
Circular and cross dance formation
Hydrologic cycle ~ The Natural Cycling of Water
Human Effects on the Water Cycle
***For next week* ~ Be ready to discuss Water Journals and any posted readings**

April 16
Discussion of Water Journals and Readings
Music and Agriculture
For next week ~ Be ready to discuss Water Journals and any posted readings.

April 23
Discussion of Water Journals and Readings.
Activities to be Announced
Earth Day ~ April 22
http://www.earthday.net/
For next week ~ Be ready to present and discuss your Water Projects.

***April 30 ~~ Water Project Presentations ~~**