

ENVS 385/PHIL 482/IDS 385
Water: In Science, Philosophy and Literature

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Classroom: Candler Library Room 101
Meeting Times: Tuesday and Thursday 11:30 a.m. – 12:45 p.m.
Required Texts: E.C. Pielou, 1998, *Fresh Water* (The University of Chicago Press).
Alice Outwater, 1995, *Water: A Natural History* (Perseus Books Group).

Week 1 Thursday January 20
Course Introduction

Week 2 January 25 and 27
Primeval waters
Early ideas/wonderings about the mysterious nature of water

Week 3 February 1 and 3
February 1 The Hydrologic Cycle
Pielou *Fresh Water* Chapter 1 The Water Cycle

February 3 Dr. Sidney Perkowitz Department of Physics
“The Rarest Element”

Week 4 February 8 and 10

Water Below the Ground: Infiltration, Groundwater Movement and Aquifers
Pielou *Fresh Water* Chapter 2 Water Below the Ground: Groundwater
Chapter 3 Groundwater in Use

Week 5 February 15 and 17
Stream Dynamics and Watersheds
Pielou *Fresh Water* Chapter 5 Flowing Water: Rivers and Streams
Chapter 6 Rivers at Work

Week 6 February 22 and 24

Watershed Protection and Delineation

Outwater *Water: A Natural History* Chapter 1 The Fur Trade
Chapter 2 Nature's Hydrologists
Chapter 3 The Woods

Week 7 March 1 and 3

Precipitation and Evaporation

Outwater *Water: A Natural History* Chapter 4 The Voyage of Rainfall

Pielou *Water* Chapter 12 Water in the Atmosphere: Vapor, Clouds, Rain and Snow

Week 8 March 8 and 10

March 8 Bodies of Water

Pielou *Water* Chapter 7 Lakes

*******March 10 Exam on Scientific Principles and Processes*******

Week 9 March 15 and 17 Spring Break

Week 10 March 22 and 24

March 22 Water and the Human Body

March 24 Dr. Arri Eisen Department of Biology
“Water Water Everywhere: Some Biology of Water”

Week 11 March 29 and 31

Water as a Destructive Agent: Floods and Attempts at Controlling Water

Outwater *Water: A Natural History* Chapter 7 Water Over the Dam
Chapter 8 Mussels, Gators and the Corps

Pielou *Water* Chapter 9 Dams, Diversions and Reservoirs

Water Symposium March 31- April 1

Week 12 April 5 and 7

Water Supply and Water Quality

Outwater *Water: A Natural History* Chapter 9 Aqueducts and Toilet Bowls
Chapter 10 Down the Drain, Up the Stack
Chapter 11 What Sludge Tells You

Week 13 April 12 and 14 Local Water Topics

**April 12 Dr. John Wegner Chief Environmental Officer
Department of Environmental Studies “A Water Tour of Emory Campus”**

April 14 Water Quality in Metropolitan Atlanta

Week 14 April 19 and 21 Regional Water Topics

Watersheds in the Southeast

Week 15 April 26 and 28 Global Water Topics

**April 26 Dr. Richard D. Rheingans School of Public Health
“Water, Health and Equity”**

April 28 Watershed Management in a Drought-Prone Area of Rural India

Field Trip Dates

Saturday, February 19 Venable Lake at Stone Mountain Park
and Saturday, March 5

Wednesday, March 23 R.M. Clayton Wastewater Treatment Plant

Saturday, April 2 Smithgall Woods
Helen, Georgia

Saturday, April 16 Duke’s Creek Woods
Helen, Georgia

500 points	15 page paper with revisions (Required)
200 points	Exam over scientific principles and processes (Required)
100 points	Journal entries (Required: Eight 200-300 word entries, two entries per week, over a 4-week period, with a maximum of 50 points earned for each 2-week period)
100 points	Saturday Field Trips (Required: Each student must attend two field trips. A write-up of one field trip is required)
100 points	Write-up of water-related events or facilities visited outside of the regular class time. (ie attending talks, art exhibits, musical events, films, poetry readings, touring water-related facilities) Must be pre-approved for credit.
	Write-up of an activity planned and led by the student on a field trip stop
	A 600-800 word writing assignment
50 points	Write-up of a guest speaker visit
Short writing assignments (200-300 words)	Experiencing the “elements” (Short instructor-led field trips in the Emory area that take place during the class meeting time. It could be a scientific, data-gathering field trip or an outdoor writing experience)
	(Other assignments may be suggested during the semester.)

The grading outline for the course is given above. The total number of points that can be earned is 1000. Your final grade will be calculated by adding up all of the points earned on your assignments, calculating a percent earned and converting that number to a letter grade. The point values for letter grades are given below. The total of 1000 points could be attempted with one of the assignment distributions suggested below.

500 points **15 page paper with revisions (Required)**
100 points **Field Trip Write-up (Required)**
200 points **Exam (Required)**
100 points **Journal entries - 4 weeks – 2 entries per week (4 weeks Required)**
50 points Write-up of a guest speaker visit
50 points Write-up of a short field trip

OR

500 points **15 page paper with revisions (Required)**
100 points **Field Trip Write-up (Required)**
200 points **Exam (Required)**
100 points **Journal entries - 4 weeks – 2 entries per week (4 weeks Required)**
100 points Write-up of a visit to a water facility

A	950 points or 95%	C	750 points or 75%
A-	900 points or 90%	C-	700 points or 70%
B+	870 points or 87%	D+	670 points or 67%
B	850 points or 85%	D	650 points or 65%
B-	800 points or 80%	D-	600 points or 60%
C+	770 points or 77%	F	550 points or 55%