**Technology and the Environment in the 20th Century**

This class provides students with an overview of how technology has altered the environment over the course of the 20th Century. We pay special attention to the dilemmas posed by industrialization, pollution, overcrowding, and the biotech revolution. Students will read books and articles on a variety of topics, with an expectation students will read between 100-150 pages each week There is also a reference textbook available. A group research project will be completed during weeks

**Grades:**

**Attendance: 10%:** Attendance includes timeliness. If you are not in class within 2 minutes of the start of class, this will count as an absence.

**Participation: 10%:** Most days before the lecture there will be Question of the Day posted as the first lecture slide. In order to get full participation credit, students will need to answer this question at least 10 times during the semester.

**Homework : 10%.** Students will be asked to complete brief homework assignments which will be discussed in class. At the end of each unit, there will be a class discussion of the readings and topics covered.

**Book Review: 10%:** A 450-500 word book review on a book on a topic germane to the theme of the class is due during week 10.

**Field Trip : 20%:** During Unit Five (weeks 8 and 9) we will make a class trip to either the Atlanta Zoo or the Atlanta Botanical Garden to learn about their conservation efforts. Students unable to attend the field trip can complete an (extensive, time consuming) alternate assignment.

**Final Paper: 20%:** A 2000-2500 word paper (8-10 pages) is due on the day you are scheduled to take your final exam for this class. We will discuss this paper more later in the semester.

**Reading Quizzes: 20%** (broken into 5 quizzes, each worth 5 points, you may drop your lowest grade)

**Learning Outcomes:**

Students in this course will demonstrate:

-- the ability to describe the historical context in which technology developed.

-- the ability to describe the social, political, and economic forces that influence the development of technology.

-- an understanding of political and economic forces shape the natural environment.

-- the ability to describe how particular technologies have changed the natural environment.

**Required Books:**

Richard White, *The Organic Machine*

Keith Basso, *Wisdom Sits in Places: Landscape and Language Among the Western Apache*

Anastasia Shkilnyk *A Poison Stronger than Love*

Mark Winston *Travels in the Genetically Modified Zone*

John McNeill *Something New Under the Sun*

**Extra Credit:**

I am not an easy grader, but I do give opportunities for extra credit. For every primary source or foreign language source you use in your final paper, I will give you 1 % credit toward your final grade. Additionally, throughout the semester I will find at least two different events on topics relevant to our class and will offer 1% extra credit to students for attending these events. Students can earn up to 5 percentage points in extra credit.

**UNIT One: Water & Power**

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| Day 1: Course Introduction, Hand out syllabus |
| Start Reading *The Organic Machine* pp. 1-59, Read *Something New Under the Sun* p. 3-17 |
| Day 2: Lecture on Water and Power  sample pop quiz (not for credit) |
| Finish reading *The Organic Machine*, pp. 60-114 |
| Day 3: Lecture on other dams in other places |
| Day 4: Lecture on water rights in arid places |
| Day 5: Quiz on *The Organic Machine*  Class Discussion of *The Organic Machine* |
| Homework: Watch the film *Chinatown* |

**Unit TWO: Landscape & memory**

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| Day 1: Lecture on Landscape and Memory Discuss Homework |
| Start Reading *Wisdom Sits in Places,* Come prepared to share the history of a place-name |
| Day 2: Discuss Homework, Lecture on Land Use by Pastoralists, Farmers and Hunters |
| Homework: Continue Reading *Wisdom Sits in Places* |
| Day 3: Lecture on Athabaskan Cultural Continuities |
| Day 4: Lecture on How to read an industrial landscape |
| Day 5: Discussion of Wisdom sits in Places, **Quiz** on *Wisdom Sits in Places* |
| Homework: on your own, watch the film *Chinatown* |

**UNIT THREE: A CENTURY OF OIL**

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| Day 1: Lecture on Energy Regimes |
| Readings: *Something New Under the Sun*: 296-324 **,** Harding *The Tragedy of the Commons* |
| Day 2: Lecture on Commons and Privatization |
| Readings: *“*The Oil We Eat,” and “Letting the Grandchildren Do it” |
| Day 3: Lecture on 21st Century Oil Regimes and the Future of Oil |
| Day 4: Lecture: Oil in Nigeria and in other developing countries |
| Day 5: Class Discussion, **Quiz** on the readings |
| Day 6: Film: Student choice: either *Crude* (2009*)*  or *Sweet Crude* (2010)  Homework: Start Reading *A Poison Stronger than Love*  pp 1-52 |

**Unit Four: Poisons**

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| **\*\*\*Book Review Selections must be chosen the first day of this Unit\*\*\*** |
| Day 1: Lecture on Major industrial accidents of the past 100 years Discuss the films |
| Reading: article available on T-Square: Nancy Langston on BPA toxins |
| Day 2: Lecture on BPA and regulation of toxicity, risk and uncertainty |
| Continue Reading *A Poison Stronger than Love,* pp. 133-191 |
| Day 3: Lecture on Chernobyl |
| Day 4: Pollution and native territories in North America and elsewhere |
| Day 5: Quiz on the reading discussion of the reading |
| Day 6: Film: *Svininka, I will Return* (2003) |

**Unit five: Conservation**

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| Day 1: First Lecture on the History of Conservation: the Hunters |
| Continue Reading *The Myth of Wild Africa* p. 59-121 |
| Day 2: Second Lecture on the History of Conservation: the Tree-Huggers |
| Homework: Finish Reading *The Myth of Wild Africa* p. 184-248, do a Wikipedia-level of research on the conservation history of an endangered (or extinct) plant or animal. |
| Day 3: Lecture on conservation in Africa |
| Day 4: Lecture on the history of wildlife documentaries, Jacques Cousteau and Marty Stouffer |
| Day 5: Discuss the Homework, Film: Jacques Cousteau’s *Mammals of the Deep* |
| Day 6: Class Discussion, Quiz on the *The Myth of Wild Africa* |
| Homework:Start reading *Travels in the Genetically Modified Zone* |

**Unit six: Food & Biotech**

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| Day 1: Lecture on the history of GMOs |
| Homework: Continue Reading *Travels in the Genetically Modified Zone* |
| Day 2: Lecture on the new age of mammoths: how biotech impacts conservation |
| Homework: Something New Under the Sun, “Eat or Be Eaten”, Michael Pollan “Power Steering” |
| Day 3: Lecture on the rise of industrial agriculture and the rise of Plant Patents |
| Continue Reading *Travels in the Genetically Modified Zone* |
| Day 4: Lecture on the Green Revolution and other biotech miscalculations |
| Day 5: Lecture on biotech and future challenges |
| Day 6: Quiz on the reading, discussion of the book |
| Day 7: Student peer review workshops |
| Day 8: Student peer review workshops |
| Day 9: Last Class: recap and class surveys |