

Syllabus

Crossroads of Earth Resources and Society Earth and Planetary Science 170AC and Letters and Science 170AC

A Letters and Science **Discovery Course** and an **American Cultures Class**

Details:

2- 1.5 hour lectures per week on Tuesdays and Thursdays 12:30-2:00 pm A1 Hearst Annex
1-3 hour film lab Mondays 6 to 9 pm in 2040 Valley Life Sciences Building
1 hour of discussion section per week in McCone Hall see class website for rooms
1 midterm exam, no final
Collection of current event reviews in Lecture

Research project: Each student is expected to conceive their own “**vision quest**” outlining a plan for a decade of personal and collective actions that might help our American society along a path of cultural harmony while continuing to support its material and energy needs with environmentally-sound practices. Talks are presented at a 2-day weekend class symposium followed up with required written papers. All students are expected to attend at least a half day of the symposium and are encouraged to participate in a full day.

Field trip: An *optional* overnight 3-day field trip to the eastern Sierra Nevada will explore the geology, climate evolution during the Peopling of North America, and tour the Japanese internment camp at Manzanar. Journal writing and reading to the group evenings. Cost: About \$ 75 for transportation plus shared room and meals.

Field Trip Grading policy: Since the field trip involves 3 days of observation, journal writing, and presentation to the group, students participating on the field trip can use the field trip towards satisfaction of their research report. **Students who attend the field trip and participate fully can submit a research paper of ½ the length of the required format for those not attending the field trip if they so choose. The page lengths for students not attending the field trip are:** A typed text narrative Paper is expected between **5 and 6 single spaced pages in length (for a single author; 6-7 pages for 2 authors; and 7-8 pages for 3 authors, 12 font.**

Grading Policy:

Midterm	20%
Discussion Section	25%
Research Project (2 parts)	Talk 25 % Paper 25%
Current event participation in Lecture	5 %

Satisfies: any 2 of (1) American Cultures requirement, (2) Social and Behavioral Sciences Breadth, and (3) Physical Science Breadth

Assigned Reading is in 2 text books

Textbooks (denoted in reading List as TWM and CHA: followed by page number interval

Title: **Come Home, America- The Rise and Fall (and Redeeming Promise) of our country**

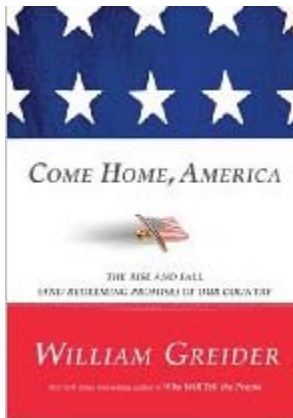
Author: William Greider

Publication Date: 2009

ISBN-13: 978-1-59486-816-0 hardcover

ISBN-10: 1-59486-816-6 hardcover

328 pages.



(2) Title: **The Weather Makers**

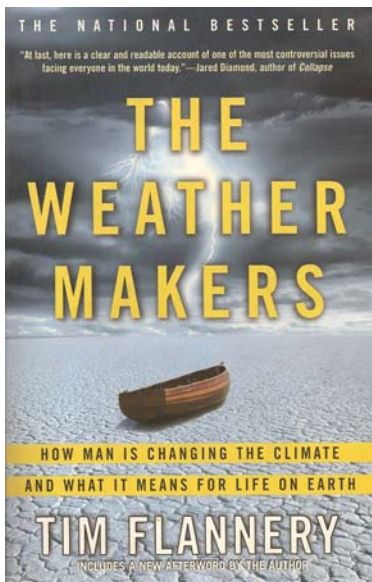
Author: Tim Flannery

Publication Date: 2005

ISBN-10: 8021-4292-3

Paperback

359 pages



Schedule

Week 1:

Thurs. Aug. 27. L-1: Road map of the class; earth resources in current events, Hubbert's Peak, Humans in a geological context, Age of Earth, Geological Time scale, Ice Age Americans, Human time (Stone Age, Bronze Age, Iron Age), Preview of field trip, Grading policy.
Reading: TWM p. 1 -18. No Discussion Sections nor Film Lab in the first week

Week 2:

The Past

Mon. Aug. 31 Film Lab Movie 1: "The Gold Rush" 2006 PBS The American Experience

Tues. Sept. 1 L-2: The Great Basin during the Holocene and Peopling the Land; geological foundation of the landscape and Milankovitch Cycles as the foundation to climate change

Reading: TWM p. 19-26, CHA: 1-9

Field Trip reservations: Starting **September 2th**, you can make your motel reservation by phone for field trip; call **(760)-876-8700** and ask to convert a room now reserved on the UC Berkeley block to a room for you (and companions to share the room if you want to cut costs) and give them your credit card method of payment. The field trip is limited to the first 60 students who call, so send an email to George Brimhall at brimhall@berkeley.edu if you have made the reservations. The block of room has (17) rooms with 2 queen size beds and (17) rooms with a single king size bed. The cost per room per night is \$ 67.99 plus 12% tax = **\$ 76.15 per night**. If you want to request a rollaway bed, then do so immediately as they are on a first come first serve basis. The Comfort Inn has a continental breakfast and a pool with deck.

Thurs. Sept. 3 L-3: The West: A country of Illusion and Global Warming; Expansion of land considered to be the West, The Louisiana Purchase of 1803, the continental divide, John Wesley Powell's Green River Expedition, Prediction of catastrophe if the West was settled without major water redistribution; Owen's Valley- its Geological origins, landscape, climate history; arid landscape today, Building the hydraulic Empire for Los Angeles, Mary Austin's writing.

Reading: TWM p. 27-53, CHA: 10-24.

Sept. 11th by 4:00 pm is the last day to make your motel reservation by phone for field trip; call (760)-876-8700 and ask to convert a room now reserved as the UC Berkeley block (under UC Berkeley) to a room for you and give them your method of payment or credit card method of payment. Limited to the first 60 students who call, so send an email to George Brimhall at brimhall@berkeley.edu if you have made the reservations.

Week 3:

Mon. Sept 7. No Film Lab (Holiday)

Tues. Sept. 8. L-4: On Some American Indian World Views.

Reading: TWM p. 54 -104, CHA: 25-61.

Thurs. Sept 10. L-5: Winning the West: Indian Removal Act of 1830, The Trail of Tears; Manifest Destiny and the "Promised Land," Impact of Federal policies: Dawes Act, Homestead Act, Mining Law, Transcontinental railroads and land surveying system, Suffrage Movement, Chinese Exclusion Act; Tribal Lands issues today.

Reading: TWM p. 104 -134.

Week 4:

Mon. Sept. 14. Film Lab Movie 2: “Becoming an American- The Chinese Experience: Gold Mountain Dreams”

Tues. Sept. 15. L-6: The California Gold Rush; Mother Lode gold quartz veins, placers deposits; the Forty Niners; environmental impact of hydraulic mining; Cultures in conflict and the impact on Indians of California; Miwok Indian tribe,.

Reading: TWM p., 135-152, **CHA:** 62-92.

Thurs. Sept. 16. L-7: Chinese in the Gold Rush, Roots of mistreatment of Asian Americans by US government, Eastern versus Western attitudes about the land.

Reading: TWM p. 153-170, **CHA:** 93-116.

Week 5:

Mon. Sept 21. Film Lab Movie 3: “Rabbit in the Moon and Redress- The JACL Campaign”

Tues. Sept. 22. L-8: Misuse of land: Japanese Internment camps; roots of mistreatment if Asian Americans in the California Gold Rush and San Francisco politics.

Thurs. Sept. 24. L-9: Geronimo and the San Carlos Apaches of Arizona, Pacification program of the US Military, Reservation System, heroic field officers General George Crook and Lt. Charles Gatewood; Gen. Nelson Miles and implications of prisoner treatment on insurgencies.

Fri.-Sat.-Sun, Sept. 25-27th Optional Field Trip across the Sierra Nevada to the Great Basin and Manzanar Internment Camp

Week 6:

Mon. Sept. 28. No Film Lab

Tues. Sept. 29. No Lecture

Thurs. Oct. 1. No Lecture

Week 7:

Mon. Oct. 5. Film Lab Movie 4: “Geronimo, An American Legend” 2006

Tues. Oct. 6. L-10: Impact of the South Dakota Gold Rush on the Plains Indians, The Battle of the Little Big Horn; Chief Joseph of the Nez Perce, Big Hole Battlefield of Montana; Wounded Knee Massacre.

Reading: TWM p. 170-248, **CHA:** 117-172.

The Present

Thurs. Oct. 8. L-11: Role of Government in land management; Creating the image of the Western Frontier (Bierstadt, Catlin), U.S. Department of the Interior, Bureau of Reclamation, Bureau of Indian Affairs, US Fish and Wildlife Service, US Geological Survey, National Park Service, Bureau of Land Management, Office of Surface Mining, and Mineral Management Service); Army Corps of Engineers, Cobel versus Norton class action lawsuit; evolving role of science in advising government, role of truth in intelligence, stewardship role of the US Geological Survey in resources development and support for the US National Forests and US National Parks, Earth Resources on Tribal Lands.

Reading: TWM: p. 248-288, **CHA:**172.-196.

Week 8:

Mon. Oct. 12. Film Lab Movie 5: “Why We Fight”

Tues. Oct. 13. L-12: Western Scientific Method, (theories of the age and origin of the chemical elements and the Earth, its internal architecture and present dynamics, San Carlos Apache Reservation nodules to deduce mantle composition and crustal evolution, bio-utilization of elements, cost and toxicity; origin of the Metric System from French Revolution; geo-spatial science today, Global positioning Systems.

Reading: TWM: 289-321, CHA:197-218.

Thurs. Oct. 15. L-13: The West and Renewable Earth Resources, solar power principles and energy distribution.

Week 9:

Mon. Oct. 19. No Film Lab

Tues. Oct. 20. Midterm Exam for full period.

Thurs. Oct. 22. No Lecture

Week 10:

Mon. Oct. 26. Film Lab Movie 6: The Corporation” 2005

Tues. Oct. 27. L-14: Nuclear fuels, nuclear energy potential, Navajo victims of uranium mining and radon gas, Nuclear waste isolation at Yucca Mountain

Thurs. Oct. 29. L-15: How to conduct a research project? Scholarship in research; How to do library research- Filmed examples of past student presentations as examples, See class web site for more details and Abstract Form:

[Guidelines for Vision Quest Research Talks & Papers](#)

[Proposal Forms](#)

Week 11:

Mon. Nov. 2. Film Lab Movie 7: “Inherit the Wind”

Tues. Nov. 3. L-16: Generational perspective on earth resource and related cultural issues, breaking recurrent cycles.

Reading: CHA: 219- 247.

Research proposals are due by 5:00 pm on Monday Nov. 9 emailed as attachments sent to Instructor. **Note on late submissions: The Research Proposal counts 10 % of the Project grade. For each day that the Proposals is late, it is discounted 2 %.**

Thurs. Nov. 5. L-17: Desertification, 1929 Crash, Dust Bowl, New Deal, and a post-election American Crisis

Week 12:

Mon. Nov. 9. Film Lab Movie 8: “Grapes of Wrath”

Tues. Nov. 10. L-18: Conservatism in the West; excerpts from “Welcome to the Homeland by Brian Mann.

Thurs. Nov. 12. L-19: Corporations and earth resources, development and social impact.

Reading: CHA: 248-269.

Week 13:

Mon. Nov. 16. Film Lab 9: “Missing” (1982) Universal Pictures account of the Missing children of Chile murdered after the coup of Pinochet exposing the complicity of the US government in the assassination of President Allende.

Tues. Nov. 17. No Lecture

Thurs. Nov. 19. L-20: Crisis as a catalyst of change to a “free market,” Pinochet’s Chile and earth resources, Naomi Klein’s “Shock Doctrine”

Reading: CHA: 270-299.

Week 14:

Mon. Nov. 23. Film Lab 10: “Blood Diamonds”

Tues. Nov. 24. Repeat of L-20: Crisis as a catalyst of change to a “free market,” Pinochet’s Chile and earth resources, Naomi Klein’s “Shock Doctrine”

Thurs. Nov. 26. Thanksgiving Holiday No Lecture

Week 15:

The Future

Mon. Nov. 30. Film Lab 11: Karen Adelman and Peter Levitt of Saul’s Restaurant and Deli in Berkeley discuss the Food revolution and introduce a **Film “Fresh”** on the Food Revolution

Tues. Dec. 1. Lecture 21: Current state of recession and a possible Post American World?

Thurs. Dec. 3. No Lecture

Sat.-Sun. Dec. 5 and 6 Class Symposium: Presentation of Vision Quest Projects

Room 141 McCone Hall

8:00 am- 7:00 pm Students are required to attend only the 1/4 day session in which their talk falls, eg morning or afternoon

Week 16:

Mon. Dec. 7. No Film Lab

Tues. Dec. 8. L-22: Discussion of Vision Quest talks, Course Summary. Fill out course evaluations in class.

Research papers are **due by 5:00 pm Friday, Dec. 11th**. Both a **Microsoft word file and a printed hard copy** are to be submitted. The file may be emailed as an attachment to the Professor, and the printed copy delivered to 391 McCone Hall.