

Israel and the Environment

Syllabus – Spring 2019

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The course description is:

This course studies the relationship between people and the environment, and the effects of Israeli societies and industries have on the environment. Plant and animal community structure, renewable and non-renewable resources and environmental degradation will be studied along with regional cooperation and problems between Israel and her neighbors. This course provides an introduction for non-biology majors into current problems that Israel faces in maintaining the stability, productivity, and sustainability of its environment. This class will identify relevant environmental issues, explore root causes underlying the problems, and examine how national and international agencies are addressing and assessing potential solutions to these issues.

The objectives of this course are for students to acquire a better understanding of environmental issues. Specifically:

- 1) to acquire knowledge of ecological concepts as they pertain to environmental problems.
- 2) to gain an awareness and understanding of environmental problems and their causes.
- 3) to learn about the possible solutions to these problems.
- 4) to recognize the importance of the interactions of the political, social, and economic aspects of the environmental issues.

Content covered:

- 1) Ecology food webs and interactions
- 2) Ecosystems in Israel
- 3) Human Impact of Ecosystems from 1st Aliya towards statehood and beyond
- 4) The role of the J.N.F. and Israel Nature Authority
- 5) Environmental impact on Israel's ecosystems through Industry and Agriculture
- 6) Alternative energy sources and resources
- 7) Environmental cooperation between Israel and its neighbors
- 8) Israel and environmental legislation

Assignments and Dates:

Test Format: Both tests are multiple choice.

Midterm Test: April 2 (20%) – (in class)

Final Test: May 21 (20%) – (in class)

Take Home final Test will cover specific environmental themes – Short Essay (30%) – May 24 : send via email. Questions will be available on May 1.
Research Paper (30%) –May 16: send via email.

You will also be required to write a short paper (**10 page minimum**) on an environmental problem for this course. This will be a group project (1-3 per group). Your group will identify and select an environmental problem and address possible or actual solutions. The paper should describe the problem in sound ecological terms; present possible solutions in an unbiased fashion; and it must include the social, political and economic interactions that are part of this problem

You can also opt for a hands on project instead of a paper. See me for more information and project approval.

If you miss a class, please get the lecture notes from another student.
Selective readings will come from: “**Pollution in a Promised Land**”; Alon Tal (Online Text)
HYPERLINK will be listed on the Moodle Class Site.

Also from “**Between Ruin and Restoration – An Environmental History of Israel**”; edited by Orenstein, Tal, Miller. Hyperlink will be listed on Moodle Class Site

Additional Articles and PowerPoint Presentations are located on the course website as well

As per guidelines from the OSP office, attendance is mandatory. 1% per absence will be taken off your final grade.

Judean Desert Jeep Trek - Date TBD

(No obligation to attend)

This is the field lab portion of the course. The time in the field will be 9-10 hours.

Where are we going?: We will be traveling to the Judean Desert.

Sites we will visit: Ein Fawwr (The pulsating spring), Mar Saba Monastery (only the overlook and not the Monastery), Har Azazel (Jebel Munta – Scapegoat mountain), Horikanya, Metzuke Dragot Overview, and Dead Sea Coast along Kibbutz Qumran to spot for desert animals at night.

Daytime Focus:

- A) Geology of Syrian African Rift
- B) Water Resources in the Judean Desert from 810M to -410M
- C) Plant Survival Techniques in a desert climate
- D) Medicinal Herbs of the Judean Desert
- E) Keystone species in Upper and Lower Judean Desert Regions
- F) Interactions of Man and Nature: Conflict and Cohabitation
- G) Oil Shale in the desert?

Nighttime Focus:

- A) Ecophysiological Adaptations in Animals in the Judean Desert
 - a. Visit a fox colony in Wadi Almog
 - b. Spotting Ibex, Gazelle, Fox, Porcupine and Hyena
 - c. Bats and night predators (birds)

A) Weekly Reading List: Pollution in a Promised Land

Week 2: Reclaiming a homeland (pages 19-21, 28-34)

Week 3: Palestine's Environment: (pages 35-47,63-68)

Week 4: The Forest's Many Shades of Green: (pages 69-85)

Week 5: The Emergence of an Israeli Environmental Movement: (pages 113-120, 145-148)

Week 6: The Quality and Quantity of Israel's Water Resources: (Pages 209-215, 225-229)

Week 7: Israel's Urban Environment: (pages 243-246, 268-271)

Week 8: Toward a Sustainable Future: (pages 405-420)

B) Weekly Reading List: Between Ruin and Restoration – An Environmental History of Israel

Week 2: The Environment in Palestine and Late Ottoman Period (1798-1918); Ruth Kark and Noam Levin. Pages 1-24

Week 3: Human Impact on Wildlife in Israel Since the Nineteenth Century; Yoram Yom-Tov. Pages 53-76

Week 6: Agricultural Roots of Israel's Water Crisis; Hillel Shuval (Moodle Site – Reading Materials)