Introduction:
Sustainability, it seems, is everywhere—in activism, industry and governmental levels. It is part of discourses in popular culture, ecology and politics. This is perhaps an indication to the growing and widely shared understanding that humans’ influence on the planetary ecological systems has far reaching consequences for humanity in many realms. However, the increasing popularity and overuse of the term presents some challenges as well. A close look at the multiple and at times competing definitions of sustainability, challenges us with no less than our vision of the society we aspire to be-- the culture we prioritize, our values, our understandings of ethics and nature, of our planet . It raises therefore controversial questions about core social and ecological values—what should be sustained? Economic growth? Ecosystems regardless of economic value? Who should benefit? Other species? Future generations? Whose needs should be prioritized or considered? And in what time frame?

Course objectives:
In this course students will investigate sustainability in theory and in practice in the complicated reality of Israel and the Middle East. Students will first understand and analyze the multiple different approaches (definitions and theories) to sustainability, the different dimensions of the environmental crisis in Israel (social, economic, political and ecological), key specific practices and challenges in pursuing sustainability in Israel and finally, students will evaluate some on the ground practices, projects and efforts to promote a sustainable future.

Grading:
In order to be credited, students on this course will have to write two analytical commentaries: the first, a shorter one on the introductory unit and its reading materials, and the second on one unit of their choice.

The first analytical paper will be written according to guiding questions handed to the students (in the form of a take home exam). Students will need to answer three questions in regards to sustainability (two pages, double space total).

In the second part, student will be handed more open guidelines, and will have to reflect on reading materials in one unit of their choice (energy/agriculture/ social justice/conservation/water/technology) connecting the readings to “the field” (sites seen and visited or a lecture given on the particularities of the subject in the region).

The students are expected to describe the chosen topic in regards to sustainability, including the assigned readings on the topic, submit a tour report (one page on the location visited and what they have seen) and describe challenges, successes and impressions of the topic in the region (4-5 pages).

More guidelines will be provided in the first introductory unit.

Deadline for submission of both papers: July 15th, 2019

Course Outline and Reading List

UNIT ONE: Introduction to Sustainability (6 academic hours)

Dr. Miri Lavi-Neeman and Mark Naveh

Location: Kibbutz Ketura and Ramat Hanadiv

- **Lecture**: The Rise of Sustainability, Defining Sustainability (3 hours)
- **Lecture**: Measuring sustainability: carrying capacity, ecological footprint, social capital (2 hours)
- **Lecture**: The Arava Institute model (1 hour)

Required readings prior to the course:

Optional:

UNIT TWO: **Renewable Energy and Energy Conservation** (9 academic hours)

This unit examines the environmental consequences of energy conversion and how renewable energy can reduce air pollution and global climate change. It evaluates the regional environmental problems and the role of the renewable energy in solving these problems by focusing on new developments in renewable energy technologies.

Location: Kibbutz Ketura and Kibbutz Lotan, Sakhnin

- **Lecture:** Introductory Energy, science and policy (2 hours)
- **Interactive lab:** Off-grid village at Kibbutz Ketura (2 hours)
- **Interactive Kibbutz Lotan practicum:** Green building and planning, food sustainability, waste reuse (2.5 hours)
- **Interactive:** TAEQ Green Building Sakhnin an innovative center for energy efficient waste treatment in the Arab sector (2.5 hours)

**Required reading:**
International Energy Agency "World Energy Outlook 2018 Executive Summary"
Participants need to review all seventeen goals

UNIT THREE: **Sustainable Agriculture and Food production** (7 academic hours)

**Dr. Elaine Solowey**

This unit examines food production from a geographical, entrepreneurial and regional perspective. It relates food production in the Arava to new forms of food consumerism in the center of Israel. and food production with social Initiatives.

Location: Ketura and Kaima Farm, Beit Zait.

- **Interactive:** Field walk to see the Enchanted Garden at Ketura (2.5 hours)
- **Interactive** Field trip and talk with Kayma farm founders (2.5 hours)
- **Lecture:** Urban gardening (2 hours)

**Required reading:**
Optional:

UNIT FOUR: Sustainability and environmental social justice (9 academic hours)

Miri Lavi-Neeman

Location: Negev highlands

A unique exploration of the desert at it relates to Zionism, development and environmental challenges. The unit includes touring visiting and learning about challenges and future development of communities. Specific Environmental challenges of Bedouin and other forms of development including the return of agro tourism and Eco-tourism in the Negev will be addressed.

- **Lecture**: Indigeneity and agriculture in the Negev (2 hours)
- **Interactive**: Collaboration between Bedouins and Israel in the Negev - Visit to Wadi Ariqa-Bedouin agricultural heritage (2.5 hours)
- **Interactive**: Visit to solitary farm (2.5 hours)
- **Tour**: of the ancient city of Avdat looking at ancient history, inspiring current agriculture in the Negev (2 hours)

Required reading:

UNIT FIVE Water Resource Management (7.5 academic hours)

Dr. Clive Lipchin

Location: Dead Sea and central Israel

**Interactive:**
- Red Sea ecology with Dr. Omer Pollack (2.5 hours)
- Visit the Dead Sea to learn about the immediate and urgent environmental threats to the disappearing resources of Dead Sea basin, due to industry and global warming. Study Cross border cooperation. (2.5 hours)
- Alona ancient aqueduct walk (2.5 hours)

Required reading:


UNIT SIX: Ecology and Landscape Conservation (6.5 academic hours)

Location: Ramat Hanadiv, Hula Valley

Topics:
- Interactive: Ramat Hanadiv Visitor's Center
  Innovative research and green building: Guided tour in a unique nature reserve on the Carmel Mountain, emphasizing innovative ecological management and regional partnership of sustainability building on the historical Rothschild gardens (4 hours)

- Interactive: Hula Valley a guided tour in one of the first nature reserves and wetlands in Israel and international site for bird watching, combining the history of conservation in Israel and current restoration, Currently managed by the JNF (2.5 hours)

Required reading:
- Laven ,Daniel “Heritage as a Catalyst for Sustainable Development” European Tourism Research Institute, Mid Sweden University/Department of Conservation, University of Gothenburg
**Bios:**

**MARK NAVEH**

Mark Naveh was born in the UK and emigrated to Sydney, Australia with his family. Mark holds a BSc from the University of Sydney where he majored in ecology, supplemented with an Honours degree in marine ecology from the James Cook University of North Queensland. In 1989 he moved to Israel, joining Kibbutz Lotan in the southern Arava. Mark received a Master’s degree in Education for Sustainability from South Bank University of London that included a research project and dissertation entitled “Common Paths: A Jewish-Arab coexistence project between two schools in Israel. A case study in peace education”. Mark served as General Secretary of the kibbutz in the years 2008-11. Since 2000 he has been a senior staff member and director of education in Lotan's Center for Creative Ecology, lecturing in the “Green Apprenticeship” practical ecology training program, teaching and facilitating groups of adults, youth and children, and developing programming around themes of community and sustainability.

**MIRI LAVI-NEEMAN**

Miri Lavi-Neeman was born in Jerusalem, Israel. Between 2003 and summer 2015 she lived in Berkeley, California, teaching and pursuing her Ph.D at the department of Geography at UC Berkeley. In 2013, she received the Israel Institute postdoctoral fellowship and joined the Berkeley Institute for Jewish Law and Israeli Law Economy and Society at UC Berkeley as their research director. Prior to Berkeley, Miri studied history and philosophy of education at Tel Aviv University and worked on comprehensive school reforms at the Branco Weiss Institute in Jerusalem and at the Heschel Center for Environmental Learning and Leadership. She was also the founding editor of Israel’s first journal for social environmental education, Hakadur Beyadenu.

Miri joins the Arava Institute to teach global environmental politics, the cultural politics of nature, and multiple courses and seminars in society and environment focusing on critical theory and analysis. She currently lives in Midreshet Ben Gurion. And he research projects interrogate the relationship between development and environmentalism, agro tourism and questions in regards to the politics of ecological science.