

Introduction to Sustainability in Israel and the Middle East

Supervisor Dr. Miri Lavi-Neeman

Additional lecturers from faculty of the Arava Institute

Introduction:

Sustainability, it seems, is everywhere—in activism, ecology, popular culture, and industry. This is perhaps an indication to the growing understanding that humans influence on the planet ecological systems has far reaching consequences for humanity in multiple realms: society, economy, culture, health, and security. It is also an indication to a deep shared desire for a sustainable future. However, it is the increasing popularity and overuse of the term that also presents some challenges—does the term mean anything at all or is it just a buzzword? 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 prioritize or considered? And in what time frame?

Course objectives:

In this course students will interrogate 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 challenges in pursuing sustainability in Israel and finally, students will evaluate some on the grounds practices projects and efforts to promote sustainable future.

Course outline

UNIT ONE: Introduction to Sustainability (6 net hours)

Dr. Miri Lavi-Neeman

Location: Jerusalem

Topics:

- **Lecture:** The Rise of Sustainability (1.5 hours)
- **Lecture:** Measuring sustainability: carrying capacity, ecological footprint, social capital (1.5 hours)
- **Lecture:** The environmental movement in Israel: challenges from past to present (1.5 hours) (ties in to later visit Hula Valley)
- **Lecture:** Defining Sustainability (1.5 hours)

Required readings:

- Wheeler, Stephen M., and Timothy Beatley, eds. *Sustainable Urban Development Reader*. Routledge, 2014.. (ch 11: excerpts from the brutland commission report, the rio declaration, Agenda 21, and the millennium development goals. Pp 59-63, 72-79)
- Vos, Robert O. "Defining sustainability: a conceptual orientation." *Journal of Chemical Technology and Biotechnology* 82.4 (2007): 334-339.
- De Shalit, Avner 1985. "From the Political to the Objective:the dialectics of Zionism and the environment." *Environmental Politics* 4.1 (1995): 70-87.

Optional:

- Marcuse, Peter. "Sustainability is not enough." *Environment and Urbanization* 10.2 (1998): 103-112.
- Sneddon, Chris, Richard B. Howarth, and Richard B. Norgaard. "Sustainable development in a post-Brundtland world." *Ecological economics* 57.2 (2006): 253-268.
- Sayre, Nathan F. "The genesis, history, and limits of carrying capacity." *Annals of the Association of American Geographers* 98.1 (2008): 120-134.



UNIT TWO: Renewable Energy and Energy Conservation (6.5 net hours)

Dr. Tareq Abu Hamed

Location: Kibbutz Ketura and Kibbutz Lotan

- **Lecture:** Introductory science and policy lecture (1.5 hours)
- **Interactive lab:** Off-grid village at Kibbutz Ketura (1.5 hours)
- **Interactive Kibbutz Lotan practicum:** Green building and planning, food sustainability, waste reuse (2 hours)
- Lecture: Renewable Energy in the Region lecture (1.5 hours)

Required reading:

International Energy Agency "World Energy Outlook 2016 Executive Summary"

UNIT THREE: Sustainable Agriculture and production; food politics (6.5 net hours)

Dr. Elaine Solowey

Location: Ketura and Moshav Idan

Topics:

- **Lecture:** Introduction to Desert Agriculture (1 hour)
- **Interactive:** Field walk to see the Enchanted Garden at Ketura (2 hours)
- **Interactive** Field trip and talk with Hedai Offaime / at the farm in Moshav Idan or alternatively in his Jerusalem café... (2 hours)
- Lecture: Domesticating indigenous plants (1.5 hours)

Required reading:

- Tal, Alon. "To make a desert bloom: The Israeli agricultural adventure and the quest for sustainability." Agricultural History (2007): 228-257.

UNIT FOUR: Sustainability and environmental social justice (8.5 hours)

Dr. Miri Lavi-Neeman

Location: Negev

- **Lecture:** Indigeneity and agriculture in the Negev (1.5 hours)
- **Interactive:** Collaboration between Bedouins and Israel in the Negev - Visit to Wadi Ariqa-Bedouin heritage and agricultural collaboration environmental center (2 hours)
- **Interactive:** Visit to solitary farm (2 hours)
- **Lecture:** Economy and environment lecture (1.5 hours)
- **Tour:** of the ancient city of Avdat (1.5 hours)

Required reading:

- McKee, Emily. 2016. Dwelling in Conflict: Negev Landscapes and the Boundaries of Belonging. Stanford University Press. Introduction.

UNIT FIVE Water Resource Management (8 hours):

Dr. Clive Lipchin and Dr. Jawad Hassan

Location: Ketura, Dead Sea,

- **Lecture:** Water history Policy in the Middle East (1.5 hours)
- **Interactive:** Water technologies (waste water and desalinization) visit to Shafdan (2 hours)
- **Interactive:** Visit the Dead Sea to learn about sinkholes (1.5 hours)
- **Lecture:** Cross-border environmental cooperation between Israel and our neighbors (1.5 hours)
- **Lecture:** Wastewater management (1.5 hours)

UNIT SIX: Environment and technology (3 hours)

Location: Tel Aviv

- **Interactive:** Living Green at Dizengoff Center (1.5 hours)
- **Lecture:** at Porter School (1.5 hours)

Require readings:

- Fred Pearce, 2013. Technology as our planet's last best hope Guardian Environment Network, Monday 15 July 2013 15.38 BST
<https://www.theguardian.com/environment/2013/jul/15/technology-planet-ecological-modernism-environmental>



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UNIT SEVEN: Ecology and conservation (5 hours)

Location: Ramat Hanadiv and Sachnin

Topics:

- **Interactive: Innovative research and green building: Ramat Hanadiv Visitor's Center (1.5 hours)**
- **Interactive: TAEQ Green Building Sakhnin (2 hours)**
- Lecture: Conservation ecology (1.5 hours)

Required reading:

Daily, GC. Introduction: What are ecosystem services? in: Daily GC, ed. Nature's services: Societal dependence on natural ecosystems. 1997 Island Press, Washington, DC. 1-10.
Jackson, T. Prosperity without Growth, Sustainable Development Commission, (March 2009): -

http://www.sdcomission.org.uk/data/files/publications/prosperity_without_growth_report.pdf

Bios:

DR. 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.

DR. TAREQ ABU HAMED

Dr. Abu Hamed from East Jerusalem holds a Bachelor and a Master of Science in Chemical Engineering from Gazi University (Turkey), and a Ph.D in Chemical Engineering from Ankara University (Turkey), and has completed two terms of postdoctoral research at the Environmental Science and Energy Research Department of the Weizman Institute (Israel), and the University of Minnesota's Mechanical Engineering Department Solar Energy Lab.

In 2008, he established the Center for Renewable Energy and Energy Conservation (CREEC) at the Arava Institute. He left the Institute in 2013 to become the Israeli Ministry of Science's Deputy Chief Scientist, and later the Acting Chief Scientist, the highest ranking Palestinian in the Israeli government. He returned to the Arava Institute in 2016 as Director of CREEC and Academic Director.