

001-2-4016 (2 credits)

Weekly Lecture Hours	Exercise	Laboratory	Field Trip
2			

The course provides the students with basic knowledge in patterns of drylands' formation, quantitative and qualitative features of bioclimatic dryland zones, general definitions of desertification, field and remote techniques of desertification/land degradation assessment, world geography of desertification, regional studies and combating desertification measures.

- Specific features of drylands. Main pre-conditions of drylands' formation. Indices of aridity; bioclimatic drylands zones. Climate change; inter-relation "man-desert". Geographic distribution of drylands in the world.
- Desertification/degradation processes – general definitions. Evolution of approaches to the desertification problem. Cause-and-effect relations. Anthropogenic and natural factors of desertification.
- Desertification assessment: criteria, indicators, drivers of desertification. Modern techniques in desertification studies.
- World geography of desertification: regional studies (Sudan-Sahelian zone; Middle East, Central Asia).
- Combating desertification: Plan of Action to Combat Desertification (UNCCD); Zero Net Land Degradation approach; traditional techniques.

**Grading Components:**

Final project + formal presentation of the project (50%); Final exam (50%)

**Lecturer:** Leah Orlovsky

**Recommended Readings:**

- UNCCD publications: <http://www.unccd.int/en/resources/publication/Pages/default.aspx>
- M. Mainguet. 1994. Desertification. Springer-Verlag Telos; 2<sup>nd</sup> edition.
- D. Thomas , N. Middleton. 1994. Desertification: Exploding the Myth. Belhaven Press.
- D. Thomas , N. Middleton. 1997. World Atlas of Desertification. Routledge; 2<sup>nd</sup> edition.
- A. Imeson. 2011. Desertification, Land Degradation and Sustainability. Wiley