Annotation
The course deals with historical and current changes of land use, landscape and land cover, with their causes, socio-economic driving forces and consequences, and with their research. The topic is covered in ca. 10 lectures.

The lectures are focused on: (a) historical and modern theories and approaches to land use research throughout the World; (b) data sources and methods of land use research (LUCC Czechia Database, CORINE database, old maps etc.); (c) description and explanation of main land use changes and their socio-economic driving forces on various spatial levels, with a focus on Czechia; and (d) the relationship between land use changes research and several other phenomena and concepts, including socio-economic metabolism, greenways planning, and modelling and simulation approaches.

At the beginning of the course the students are given ten articles as a compulsory literature to read and then to discuss during the corresponding lectures. Furthermore, each student is asked to write an essay on a selected topic, based primarily on several up-to-date scientific articles. The essays shall be presented and discussed during the two final lectures.

Literature
Compulsory literature:


Further reading:


Students’ duties
a. Do not miss more than two lectures
b. Read the compulsory literature in advance, be active during the lectures and participate in the discussions
c. Write an essay (ca 3 pages long) and present it (ca 8 minutes)

Syllabus
1. Introduction into the course, objectives and contents of the course, compulsory literature, syllabus and timetable, students’ duties.
2. Introduction into land use and land cover change research; basic concepts and definitions; theory of land use research.
3. Approaches to land use research throughout the World; history and current state of global land use research.
4. GIS and remote sensing methods in land use research, data collection and classifications, spatial data sources of land use research.
5. Quantitative data and methods in land use research; Database of long-term land use changes in Czechia (1845-2010).
6. Representation of landscape on old maps; old maps as a source for the study of land use change.
7. Historic land use changes in Czechia (until 1845).
8. Modern-times and current land use changes in Czechia (1845-2015) - description, explanation, main "driving forces".
9. Socio-economic metabolism and its role in land use changes research.
10. Modelling and simulation approaches in land use changes research.
11. Greenways planning as an example of application of land use research.
12. Presentations of essays, final discussion.