

BELARUSIAN STATE UNIVERSITY
GEOGRAPHICAL FACULTY

LANDSCAPE PLANNING AND ENVIRONMENTAL
APPLICATIONS

The Program of the University Course for Master Students

Lectures	34 academic hours
Laboratory landscape planning projects	12 academic hours
Controlled Personal landscape planning projects	26 academic hours

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Course Objectives

The overall goals of the course “Landscape planning. Environmental applications” are to:

- promote understanding of the landscape planning procedure; objectives, requirements, measures and organizing of the planning process;
- allow students to formulate low, normative, institutional, territorial, organizing, ecological, nature conservation requirements for operating landscape planning and landscape planning levels and modules;
- allow students to operate methodics for land use capability analysis and regional landscape evaluation for landscape planning;
- allow students to operate cartographical, remote sensing, geoinformation and landscape ecology methods in the landscape planning contents.

The particular objectives of each chapter of the course text are outlined below.

Chapter 1. Introduction. Landscape planning tasks and target groups. Areas of activity in landscape planning.

Landscape planning – a proven instrument of the territorial development with new tasks. Landscape planning contents. Objects, requirements and measures for the planning area. Principles and priorities of nature conservation and landscape management.

Chapter 2. Landscape planning levels and modules.

Planning levels: contents, analysis, scale. Landscape programme, landscape structure plans, landscape plan, open space structure plan. Core modules of landscape planning (basic information about nature and landscape impact analysis and forecast, assessment criteria, objectives and measures concept, implementation programme, information system). Supplementary modules (protection of conservation areas, strategic ecological assessment (SEA), ecological impact assessment (EIA), impact mitigation regulation, land policy existing plans of territorial development, etc.).

Chapter 3. Landscape planning contents.

Landscape functions. Inventory of environmental data, preparation of the information, uses, target-oriented survey. Structure and contents of a landscape plan (core modules). Preparation of visualized map examples from survey and assessment of existing landscape situation. Notes on GIS-assisted landscape planning.

Chapter 4. Organising of the planning process and participation.

Steps of the preparation and updating of the landscape plan: task definition / determination of the scope of investigation (scoping), survey and assessment, target concept, requirements and measures. Landscape plan sequence. Coordination with national, regional, local and urban development planning. Public participation in the landscape planning phases (when and how to involve). Documentation of the landscape planning and decision-making process. Examples on the implementation of landscape plan measures.

Chapter	All academic hours	Lections	Laboratory landscape planning projects	Controlled personal landscape planning projects
Chapter 1. Introduction. Landscape planning tasks and target groups. Areas of activity in landscape planning	10	4	2	4
Chapter 2. Landscape planning levels and modules	14	8	2	4
Chapter 3. Landscape planning contents	28	16	4	8
Chapter 4. Organising of the planning process and participation	20	6	4	10
All	72	34	12	26

Literature for Reading:

1. Landscape planning. The basis of sustainable landscape development. Federal Agency for Nature Conservation. Bonn (Germany), 2008. 52 p.
2. Naveh Z., Lieberman A. Landscape Ecology. Theory and Application. Second edition. Springer-Verlag, New York, 2004, 361 p.
3. Marsh W. Landscape planning. Environmental Applications. John Wiley and Sons Inc., New York, 2001, 340 p.
4. Jensen M., Bourgeron P. (editors). A Guidebook for integrated ecological assessments. Springer, Berlin, 2001, 535 p.
5. Kavaliauskas P. A sustainable landscape planning system and landscape ecology // Ekologiya, vol. 53, 2007, p. 4-9.
6. Turner T. Landscape planning and Environmental impact design. UCL press, London, 1998. 426 p.
7. Leitao A.B. et al. Measuring Landscapes. A planner's Handbook. Washington, 2006. 240 p.