**SYLLABUS:**

**Landscape architecture ecology**

Course name: Landscape architecture ecology

Number of credits: 3 ECTS/6 MCTS

Period: Fall/Spring semester

|  |  |
| --- | --- |
| Host institution | Mongolian University of Life Sciences, School of Agroecology |
| Lecturer | Burenjargal Otgonsuren, Munkhtuvshin Khishigzundui |
| Level | B.Sc course |
| Course type | Elective course |
| Course duration | 8 weeks |
| New/Revised | Revised |
| E-course link |  |

### Summary

This 3 ECTS course….

Student will provide …...

### Target student audiences

Bachelor students majoring in landscape architecture

### Prerequisites

Required courses (or equivalents): Ecology

### Aims and objectives

The course aims to provide general concepts of landscape ecology, ecological landscape design and planning, and how they apply to the discipline of landscape architecture and urban ecology and methods to identify and analyze affecting factors

**The authentic tasks**

The authentic tasks are…

### General learning outcomes:

By the end of the course, successful students will:

|  |  |
| --- | --- |
| Knowledge | * Knowledge of landscape ecology, ecological landscape design and planning * Knowledge of the factors influencing the urban ecology and landscape architecture * To gain knowledge about ecological design, and its place in the practice of landscape architecture. |
| Competences | * To evaluate ecological design objectively, and its place in the practice of landscape architecture. * Identify urban environmental factors affecting urban ecology and landscape architecture |
| Application | * apply concepts and contemporary understandings of ecology in the design of urban landscape; |
| Analysis | * Ecological analysis of urban ecology and landscape architecture |
| Synthesis | * To synthesize concepts in urban ecology shaped by building and landscape. |

### Overview of sessions and teaching methods

The course is delivered through lectures, field trips, assigned readings, and student presentations. The lectures provide an overview of ecological concepts and cover an ecological theme relevant to ecological design, including case studies. Time will be made at the end of most lectures for discussion.

### Course workload

The table below summarizes course workload distribution:

|  |  |  |  |
| --- | --- | --- | --- |
| Activities | Learning outcomes | Assessment | Workload  (hours) |
| **In-class activities-64 hours** | | | | |
| Lectures | Understanding theories, concepts, methodology and tools | Class participation | 32 |
| Moderated in-class discussions | Understanding various policy and management contexts and common problems in communication in landscape ecology | Class participation and preparedness for discussions | 8 |
| In-class assignments, field assignment | Understanding various policy and management contexts and common problems in communication in landscape architecture | Class participation and preparedness for assignments | 8 |
| Reading and discussion of assigned papers for seminars and preparation for lectures | Familiarity with and ability to critically and creatively discuss key concepts, tools and methods as presented in the literature | Class participation, creative and active contribution to discussion | 8 |
| Group presentation | Ability to interpret data, to analyze audience, and to use the concepts, tools, and methods for communicating the landscape architecture ecology | Quality of group assignments and individual presentations | 8 |
| **Independent work-64 hours** | | | | |
| Group work:   * Contribution to the group case-study projects * Contribution to the preparation and delivery of individual presentation * Contribution to the web-application | Ability to interpret data, to analyze audience, and to use the concepts, tools, and methods for communicating information to all participants  Plan and develop a landscape architecture ecology, be aware of information visualization tools and methods | Quality of group assignments and individual presentations | 24 |
| Course group assignment | Ability to conceptualize and frame an landscape architecture ecological problem, find related literature and data, interpret data, use the concepts, tools and methods covered in the course, and draw policy/management relevant conclusions | Quality of developed landscape architecture ecology and their presentation | 20 |
| Group presentation | Ability to interpret data, to analyze audience, and to use the concepts, tools, and methods for communicating the landscape architecture ecology | Quality of group assignments and individual presentations | 20 |
| **Total** |  |  | **128** |

### Grading

The students’ performance will be based on the following:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Assessment | 1. Quizzes (30%)  There will be five quizzes in practical sessions that will be worth 5% (x2) and 10% (x2) each. Quizzes will be short-answer written quizzes of 20 minutes in duration. Written feedback will be provided in the following practical.  2. Discussion (40%)  There will be an oral discussion of a scientific paper chosen by the student and presented through a power point presentation, followed by few questions about the topics discussed during the course. Assessment criteria are based on presentation quality and content understanding, knowledge of the main concepts given during the course.  3. Final Exam (30%)  A hour exam in the end of semester exam period that will draw on material from both lectures and practicals. | | | | |
| Evaluation  EU system | A (8,5 – 10)  B (7,0 – 8,4)  C (5,5 - 6,9)  D (4,0 – 5,4) | Evaluation  MN system | 95-100  90-94  85-89  80-84  75-79  70-74  65-69  60-64  0-59 | A  A-  B  B-  C  C-  D  D-  F | 4.0  3.6  3.1  2.7  2.3  1.9  1.4  1.0  0.0 |

### Course schedule

|  |  |  |  |
| --- | --- | --- | --- |
| Week | In-class  hours | Topic | Type |
| 1 | 4 | * Introduction: landscape ecology, applying principles of landscape ecology | Lecture |
| 2 | * Introduction: landscape ecology, applying principles of landscape ecology | Seminar |
| 2 | 2 | * Landscape architecture and ecology | Lecture |
| 4 | * Landscape architecture and ecology | Seminar |
| 3 | 4 | * Ecological design’s relationship landscape architecture, the form and function of landscapes | Lecture |
| 4 | * Ecological design’s relationship landscape architecture, the form and function of landscapes | Seminar |
| 4 | 2 | * Urban ecosystem structure and function | Lecture |
| 2 | * Urban ecosystem structure and function | Seminar |
| 5 | 4 | * Types of urban systems and Landscape architects | Lecture |
| 4 | * Types of urban systems and Landscape architects | Seminar |
| 6 | 4 | * Ecological urbanisms and green infrastructure | Lecture |
| 4 | * Ecological urbanisms and green infrastructure | Seminar |
| 7 | 4 | Biodiversity and ecosystem health in the urban context | Lecture |
| 4 | * Biodiversity and ecosystem health in the urban context | Seminar |
| 8 | 4 | * Landscape dynamic equilibrium, resilience and cities. Resilient + sustainable + regenerative design | Lecture |
| 4 | * Landscape dynamic equilibrium, resilience and cities. Resilient + sustainable + regenerative design | Seminar |
| 9 | 4 | * Design processes for ecosystem health | Lecture |
| 4 | * Design processes for ecosystem health | Seminar |
| Lecture 32  Seminar 32 | | | |

### Course assignments/tests

Course assignments will constitute …

### Literature

**Compulsory:**

1. Monica G. Turner Robert H. Gardner, 2015 “Landscape ecology in theory and practice”
2. Nancy R, Ken Y, 2010 “Basics Landscape Architecture 02: Ecological Design”.

**Recommended:**

1. Dramstad, W., J. D. Olson, and R.T.T. Forman. 1996. “Landscape ecology principles in landscape architecture and land-use planning”