

AZƏRBAYCAN RESPUBLİKASI TƏHSİL NAZİRLİYİ
BAKİ DÖVLƏT UNİVERSİTETİ
FƏNN SİLLABUSU

Təsdiq edirəm _____
(kafedra müdiri)

İmza: _____

Tarix: “ _____ ” _____ 2014-cü il

Kafedra: _____ Bioekologiya _____

Fakültə: __ Ekologiya və torpaqşünaslıq _____

I. Fənn haqqında məlumat

Fənnin adı: _____

Tədris yükü (saat) cəmi: __ mühazirə __ seminar __ praktik (laboratoriya) __

Tədris ili _____ 2014 _____ Semestr _____ Bölmə __ azərb (rus) _____

Kredit sayı (hər 30 saata 1 kredit) _____

II. Müəllim haqqında məlumat:

(Soyadı, adı, atasının adı, elmi adı və dərəcəsi)

Məsləhət günləri və saatları: _____ günlər _____

E-mail ünvanı: _____

İş telefonu: __ (012) 510-57-40

III. Tələb olunan dərsliklər və dərs vəsaitləri:

Əsas:

1. Begon M., Townsend C.R., Harper J.L. ECOLOGY From Individuals to Ecosystems, 4th Edition, Blackwell, 2006, 738 pages

2. Dr. Hermann Remmert, Editor The Mosaic-Cycle Concept of Ecosystems, Ecological Studies, 1991, Volume 85

3. Jan Pepper (2010): Semi-desert vegetation of the Greater Caucasus foothills in Azerbaijan : Effects of site conditions and livestock grazing, Dissertation at University of Greifswald, 112 pages

4. McPherson G.R., DeStefano S. Applied Ecology and Natural Resource Management, Cambridge University Press, 2003, 165 pages
5. Olson, David M. et al. Terrestrial Ecoregions of the World: A New Map of Life on Earth, BioScience, Vol. 51, No. 11., 2001, pp. 933–938. - <http://wolfweb.unr.edu/~ldyer/classes/396/olsonetal.pdf>
6. Dieterich T. Handbook on methods for field courses, BSU, 2013, 72 pages
7. Udvardy, M. D. F. A classification of the biogeographical provinces of the world. IUCN Occasional Paper no. 18. Morges, Switzerland: IUCN, 1975, 50 pages
<http://cmsdata.iucn.org/downloads/udvardy.pdf>
8. Walter H, Breckle S-W Ökologie der Erde, 4 Bände, Fischer, Stuttgart/Jena, 1991-1994, 238, 764, 762, 586 pages – German

Əlavə:

An full overview is given on wikipedia.org e.g.
<http://en.wikibooks.org/wiki/Ecology> (retrieved 15.01.2015)

Fənnin təsviri və məqsədi:

(Fənn haqqında qısa məlumat, onunla şərtləşən fənlər (bilavasitə bağlı olan/uyğun gələn), fənnin tədrisinin məqsədləri. Bu fənni öyrənməklə tələbələrin nəyi biləcəkləri, nəyə nail olacaqları və hansı vərdişlərə yiyələnəcəkləri qeyd edilir)

Kursun qısa təsviri:

The course does give a general overview on ecological issues with examples from Azerbaijan. Ecology as a scientific field with an inter-disciplinary dimension is investigated and an overview on monitoring, ecosystems, sustainable use, international tools for nature conservation, protected areas etc. is given.

Kursun məqsədi:

The course gives an introduction to general ecology and thus a basis for future ecologists to understand the complexity of ecosystems and learn about ecology as a scientific field.

IV. Fənnin təqvim planı:

Həftələr	Mövzunun adı və qısa icmal	Mühazirə	Məşğələ	Saat	Tarix
	<p>Topic № 1 Ecology as a scientific field</p> <p>Short Overview: The development of ecology as a scientific field is given. In addition different species concepts as well as species habitats and the ecosystem concept are discussed.</p>				<p>15.09. 2015</p>

	<p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Ecology (retrieved 15.01.2015)</p> <p>2. http://evolution.berkeley.edu/evosite/evo101/VADefiningSpecies.shtml (retrieved 15.01.2015)</p>				
	<p>Topic № 2</p> <p>Plant and animal Communities</p> <p>Short Overview:</p> <p>Life is taking place in communities. Factors influencing plant and animal communities are elaborated and ways how species are interacting with each other i.e. predation, commensalism, symbiosis and competition.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Community_ecology (retrieved 15.01.2015)</p> <p>2. http://en.wikipedia.org/wiki/Phytosociology (retrieved 15.01.2015)</p>				<p>22.09.2015</p>
	<p>Topic № 3</p> <p>Population Ecology</p> <p>Short Overview:</p> <p>The concept of population ecology is presented including statistical indicators of the population i.e. size, density, age and sex ratio. Also dynamic indicators of populations i.e. fertility, mortality, growth rate. Structure and dynamics of populations. Modelling of population parameters for sustainable planning and decision making are also a topic.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Population_ecology (retrieved 15.01.2015)</p> <p>2. http://en.wikipedia.org/wiki/Life_history_theory (retrieved 15.01.2015)</p> <p>3. http://en.wikipedia.org/wiki/R/K_selection_theory (retrieved 15.01.2015)</p>				<p>29.09.2015</p>
	<p>Topic № 4</p>				<p>06.10.</p>

	<p>The main factors of the environment</p> <p>Short Overview:</p> <p>The main factors of an environment are an important feature in order to understand ecosystems. These factors can be classified in abiotic, biotic and anthropogenic ones. In addition the main factors of the environment i.e. water, soil, air, organic matter and adaptation of organisms to them are discussed. Limiting factors in the environment and tolerance to stress factors of species are also an important issue. Examples from the plant and animal world are given with focus on Azerbaijani species.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <ol style="list-style-type: none"> 1. http://en.wikipedia.org/wiki/Environmental_factor (retrieved 15.01.2015) 2. http://en.wikipedia.org/wiki/Liebig's_law_of_the_minimum (retrieved 15.01.2015) 				2015
	<p>Topic № 5</p> <p>Ecological niches and succession</p> <p>Short Overview:</p> <p>The concept of biocoenosis and ecological niches is introduced. An overview on primary and secondary succession dynamics of communities over time i.e. intermediate and climax stages with examples of forests and semi-deserts in the Caucasus is given.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <ol style="list-style-type: none"> 1. http://en.wikipedia.org/wiki/Ecological_niche (retrieved 15.01.2015) 2. https://en.wikipedia.org/wiki/Primary_succession (retrieved 15.01.2015) 3. http://en.wikipedia.org/wiki/Secondary_succession (retrieved 15.01.2015) 				13.10.2015
	<p>Topic № 6</p> <p>Principles of ecosystem functions.</p> <p>Short Overview:</p>				20.10.2015

	<p>The ecosystem concept is introduced and different interpretations by Holdridge, Whittaker's, Udvardy, Walter, Bailey and Olson are given. The WWF system developed by Olson is in 2001 is presented in detail with examples of ecosystems of the world.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. Secretariat of the Convention on Biological Diversity (2004) The Ecosystem Approach, (CBD Guidelines) Montreal: Secretariat of the Convention on Biological Diversity 50 p.</p> <p>2. Olson, David M. et al. (2001): Terrestrial Ecoregions of the World: A New Map of Life on Earth, BioScience, Vol. 51, No. 11., pp. 933–938.</p>				
	<p>Topic № 7</p> <p>Cycles of matter and energy flow in ecosystems.</p> <p>Short Overview:</p> <p>The main cycles of matter and energy flow in ecosystems is given i.e. nitrogen, carbon, phosphorus, oxygen, sulphur, water and rocks. The different trophic levels in ecosystems and the productivity on each level are discussed with effects on the food chain and possibilities to feed the ever growing human population.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Biogeochemical_cycle (retrieved 15.01.2015)</p>				<p>27.10. 2015</p>
	<p>Topic № 8</p> <p>Dynamics and stability of ecosystems</p> <p>Short Overview:</p> <p>Dynamics and stability of ecosystems are discussed. Resistance and inertia (persistence) of ecosystems are given with examples from Azerbaijan.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Ecological_stability</p>				<p>03.11. 2015</p>

	(retrieved 15.01.2015)				
	<p>Topic № 9</p> <p>Humans and the biosphere</p> <p>Short Overview:</p> <p>Humans do influence the in the biosphere in many different ways. The impact of environmental pollution and the overuse of natural resources through fishing, hunting and grazing as an negative impact on the environment and the health of people is present throughout the world. The example Absheron Peninsula is taken to demonstrate some of this issues.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://wwf.panda.org/what_we_do/footprint/agriculture/impacts/habitat_loss/ (retrieved 15.01.2015)</p> <p>2. http://en.wikipedia.org/wiki/Water_pollution (retrieved 15.01.2015)</p> <p>3. http://en.wikipedia.org/wiki/Air_pollution (retrieved 15.01.2015)</p>				10.11. 2015
	<p>Topic № 10</p> <p>Urban ecology</p> <p>Short Overview:</p> <p>In this section current challenges in urban ecology due to continuing urbanisation are presented. Also urban ecology as a new discipline of ecological science is discussed. Influence of the growing cities on the environment and specifically on humans as well as the fauna and flora are elaborated. Examples of synanthrope plant and animal species of Baku city are given.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://en.wikipedia.org/wiki/Urban_ecology (retrieved 15.01.2015)</p>				17.11. 2015
	<p>Topic № 11</p> <p>Rational and sustainable use of resources.</p>				24.11. 2015

	<p>Short Overview:</p> <p>The Rational and sustainable use of resources with the example of the waste problem is presented. Disposal of solid waste and waste water in Azerbaijan is an important example just on our doorsteps.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. https://en.wikipedia.org/wiki/Waste_management (retrieved 15.01.2015)</p> <p>2. https://en.wikipedia.org/wiki/Sewage_treatment (retrieved 15.01.2015)</p>				
	<p>Topic № 12</p> <p>Basics of environmental monitoring</p> <p>Short Overview:</p> <p>In this section basics of environmental monitoring (Fauna, Flora, air, water and soil) and modern monitoring methods are presented. This enables us humans to protect air, water, soil, forests and biodiversity.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. https://en.wikipedia.org/wiki/Environmental_monitoring (retrieved 15.01.2015)</p> <p>2. Dieterich T. Handbook on methods for field courses, BSU, 2013, 72 pages</p>				01.12.2015
	<p>Topic № 13</p> <p>Concept of sustainable development</p> <p>Short Overview:</p> <p>Tools of sustainable development are among others international conventions on the protection of the environment. The status of their ratification in Azerbaijan is important to understand, in order to see where the development of the country stands in this perspective. In this section also an overview on the national, international, governmental and intergovernmental organisations involved in nature conservation are given.</p>				08.12.2015

	<p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. http://www.az.undp.org/content/azerbaijan/en/home/mdgoverview, (retrieved 15.01.2015)</p> <p>2. http://en.wikipedia.org/wiki/Treaty, (retrieved 15.01.2015)</p>				
	<p>Topic № 14</p> <p>Protected Areas</p> <p>Short Overview:</p> <p>Protected Areas are an important instrument for nature protection and specifically for the protection of biodiversity. IUCN has defined the international accepted concept of the protected areas categories for the world. The protected areas system in Azerbaijan is developing rapidly. Over 10% of the land is now protected in such way (from just above 3% in 2003). Besides this fast growth there is still a lot of work to be done in managing the areas more effectively.</p> <p>Reading materials (the book's title, authors and indication of the pages):</p> <p>1. https://en.wikipedia.org/wiki/Protected_area (retrieved 15.01.2015)</p> <p>2. Dudley, N. (Editor) (2008). Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN. x + 86pp.</p> <p>3. http://en.wikipedia.org/wiki/IUCN_protected_area_categories (retrieved 15.01.2015)</p> <p>4. http://www.eco.gov.az/en/b-xm-tb.php (retrieved 15.01.2015)</p>				<p>15.12. 2015</p>
	<p>Topic № 15</p> <p>Ecotourism as an instrument for nature protection</p> <p>Short Overview:</p> <p>Ecotourism can be an instrument for nature protection and regional development. Nature and the livelihoods of local people can be supported harmoniously, if the principles of</p>				<p>22.12. 2015</p>

ecological tourism are followed. They are given by the International Ecotourism Society (TIES) as follows: „Responsible travel to natural areas that conserves the environment and improves the well-being of local people. Reading materials (the book's title, authors and indication of the pages): 1. http://www.ecotourism.org/ (retrieved 15.01.2015) 2. https://en.wikipedia.org/wiki/Sustainability (retrieved 15.01.2015)					
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V. **İmtahanın keçirilməsi forması - yazılı, şifahi, dialoq və ya test.**

VI. **Semestr ərzində qiymətləndirmə və bal bölgüsü:**

Balların maksimum miqdarı – 100 bal.

A) ***Semestr ərzində toplanan maksimum bal – 50 (imtahana keçid bal – 17)***

Dərsə davamiyyətə görə	10 bal
Tələbələrin sərbəst işinə (referat, prezentasiya, tədqiqat işi və s.) görə Qeyd: Plagiat halları qəti qadağandır! Sərbəst işlə əlaqədar bütün tapşırıqların qısa təsviri, təqdim olunma şərtləri, vaxtı və qiymətləndirmə üsulu dəqiq göstərilir.	10 bal
Seminar (məşğələ) və ya laboratoriya dərslərinin nəticələrinə görə (eyni fəndən həm seminar (məşğələ), həm də laboratoriya dərsləri nəzərdə tutulduğu halda onların hər birinə 10 bal ayrılır).	20 bal
Kurs işinin hazırlanmasına və müdafiəsinə görə (fənn üzrə kurs işi (layihəsi) nəzərdə tutulmayıbsa, ona ayrılan 10 bal seminar (məşğələ) və ya laboratoriya dərslərinə əlavə olunur).	10 bal

B) ***Semestr imtahanı nəticəsinə görə - maksimum 50 bal***


Hər biletdə – 5 sual, hər suala – 10 bal verilir

Qeyd: Tələbənin imtahandan topladığı balın miqdarı 17-dən az olmamalıdır.

C) ***Semestr nəticəsinə görə qiymətləndirmə (imtahan və imtahana qədər toplanan ballar əsasında):***

91 – 100 bal	əla	A
81 – 90 bal	çox yaxşı	B
71 – 80 bal	Yaxşı	C
61 – 70 bal	Kafi	D
51 – 60 bal	qənaətbəxş	E
51 baldan aşağı	qeyri-kafi	F

VII. Müəllim: Til Dieterich, CIM Expert

İmza: 
(soyadı, adı, atasının adı)

Tarix: _____