

Rok akademicki:		Grupa przedmiotów:		Numer katalogowy:	
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Nazwa przedmiotu ¹⁾ :	Restoration to ecosystem of wild medicinal plants			ECTS ²⁾	2
Tłumaczenie nazwy na jęz. angielski ³⁾ :	Restoration to ecosystem of wild medicinal plants				
Kierunek studiów ⁴⁾ :	Environmental Protection				
Koordinator przedmiotu ⁵⁾ :	Dr Anna Geszprych				
Prowadzący zajęcia ⁶⁾ :	Dr Anna Geszprych				
Jednostka realizująca ⁷⁾ :	Faculty of Horticulture and Landscape Architecture, Department of Vegetable and Medicinal Plants				
Wydział, dla którego przedmiot jest realizowany ⁸⁾ :	Faculty of Civil and Environmental Engineering				
Status przedmiotu ⁹⁾ :	a) przedmiot kierunkowy	b) stopień II rok I	c) full-time		
Cykl dydaktyczny ¹⁰⁾ :	winter semester	Jęz. wykładowy ¹¹⁾ :	English		
Założenia i cele przedmiotu ¹²⁾ :	<p>Wild growing medicinal plants are endangered by numerous specific and non-specific factors. One of the most important factors specific for this group of plants is uncontrolled and excessive harvesting, resulting from big demand on the raw materials obtained from these plants. Other dangers concern changes in natural habitats of plants, caused both by natural processes and man's activity. Students will be acquainted with the most important species of medicinal plants growing wild in Poland, with regard to habitat type, richness of natural resources, plant part collected as a raw material, and main dangers for the species. The methods of preservation of medicinal plants and their natural habitats will be presented, including Polish and international law regulations, international conventions, organisations and institutions involved in research on wild growing medicinal plants, active protection and policy making, long-term actions leading to conservation of natural plant resources. Some results of the <i>in situ</i> and <i>ex situ</i> studies on biodiversity of medicinal plants carried out in Poland will be shown, with special regard to those concerning intraspecific chemical diversity of medicinal plants, which is essential from the practical point of view (quality of raw materials, usefulness for cultivation and breeding). The rules of the balanced exploitation of natural resources of medicinal plants will be discussed.</p> <p>The subject is related to botany, environmental policy, and ecological base of nature conservation.</p>				
Formy dydaktyczne, liczba godzin ¹³⁾ :	<p>a) lecture; 15 hours; b) auditory practices; 12 hours; c) field practices; 3 hours;</p>				
Metody dydaktyczne ¹⁴⁾ :	discussion, individual presentations prepared by students on the basis of analysis of source texts				
Pełny opis przedmiotu ¹⁵⁾ :	<p>Lecture topics: General characteristics of medicinal plants and Polish herbal market, with special respect to the demand on raw materials obtained from wild growing plants. Occurrence of medicinal plants in various plant communities. Factors threatening populations of wild growing medicinal plants and their habitats. Intraspecific variability of wild growing medicinal plants and its impact on conservation strategies. Polish and international law regulations and conventions aiming at conservation of natural resources of medicinal plants. Organisations and institutions involved in conservation of wild growing medicinal plants. Methods of <i>in situ</i> and <i>ex situ</i> plant conservation. Rules and problems concerning reintroduction of medicinal plants to natural sites.</p> <p>Practices topics: Visit to the experimental field of the Department of Vegetable and Medicinal Plants to get acquainted with the <i>ex situ</i> collection of wild growing medicinal plants and the experiments on introduction of these plants into cultivation. Methods of propagation of medicinal plants. Botanical characteristics and identification of chosen wild growing medicinal plants, including protected and non-protected but endangered species. Presentations on chosen species of endangered medicinal plants (morphology, biology of development, occurrence, habitat requirements, threats, conservation actions).</p>				
Wymagania formalne (przedmioty wprowadzające) ¹⁶⁾ :					
Założenia wstępne ¹⁷⁾ :	Student has basic knowledge on botany and nature conservation.				
Efekty kształcenia ¹⁸⁾ :	<p>01 – recognises Polish wild growing medicinal plants, especially protected and endangered species and their habitats</p> <p>02 – is aware of various threats for wild growing medicinal plants and their habitats</p> <p>03 - knows the methods of conservation of biodiversity of medicinal plants</p> <p>04 – is aware of problems and risks concerning plant conservation, introduction and reintroduction actions</p>	<p>05 – uses the knowledge on the economic and environmental importance of medicinal plants and their requirements in the environmental decision making</p> <p>06 – understands the impact of man's activity on the survival of wild growing plants</p> <p>07 – understands the necessity of updating knowledge on the methods used for biodiversity conservation and tracking down the results of restoration projects</p>			
Sposób weryfikacji efektów kształcenia ¹⁹⁾ :	written final test including identification of chosen species of medicinal plants				1

Forma dokumentacji osiągniętych efektów kształcenia ²⁰⁾ :	questions and answers of the final test with the mark
Elementy i wagi mające wpływ na ocenę końcową ²¹⁾ :	final test – 100%
Miejsce realizacji zajęć ²²⁾ :	didactic room, experimental field
Literatura podstawowa i uzupełniająca ²³⁾ : 1. WHO, IUCN, WWF. 1993. Guidelines on the Conservation of Medicinal Plants. Castel Cary Press, Somerset, UK. 2. IUCN. 1998. Guidelines for Re-introductions. Prepared by the IUCN/SSC Re-introduction Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK. 10 pp. Papers in scientific journals, e.g. 3. Hamilton A.C. 2004. Medicinal plants, conservation and livelihoods. Biodiversity and Conservation 13: 1477-1517. 4. Heywood V.H., Iriondo J.M. 2003. Plant conservation: old problems, new perspectives. Biological Conservation 113: 321-335. 5. Lienert J. 2004. Habitat fragmentation effects on fitness of plant populations – a review. Journal for Nature Conservation 12: 53-72.	
UWAGI ²⁴⁾ : Presentation on an indicated medicinal plant during practices is necessary for getting a pass, but doesn't affect the final mark.	

Wskaźniki ilościowe charakteryzujące moduł/przedmiot²⁵⁾ :

Szacunkowa sumaryczna liczba godzin pracy studenta (kontaktowych i pracy własnej) niezbędna dla osiągnięcia zakładanych efektów kształcenia ¹⁸⁾ - na tej podstawie należy wypełnić pole ECTS ²⁾ :	50 h (2 ECTS)
Łączna liczba punktów ECTS, którą student uzyskuje na zajęciach wymagających bezpośredniego udziału nauczycieli akademickich:	1 ECTS
Łączna liczba punktów ECTS, którą student uzyskuje w ramach zajęć o charakterze praktycznym, takich jak zajęcia laboratoryjne, projektowe, itp.:	0.5 ECTS

Tabela zgodności kierunkowych efektów kształcenia z efektami przedmiotu²⁶⁾

Nr /symbol efektu	Wymienione w wierszu efekty kształcenia:	Odniesienie do efektów dla programu kształcenia na kierunku
01	recognises Polish wild growing medicinal plants, especially protected and endangered species and their habitats	K_W01+
02	is aware of various threats for wild growing medicinal plants and their habitats	K_W01++, K_U04+
03	knows the methods of conservation of biodiversity of medicinal plants	K_W07++, K_W08+
04	is aware of problems and risks concerning plant conservation, introduction and reintroduction actions	K_W07+, K_S03+, K_S05++
05	uses the knowledge on the economic and environmental importance of medicinal plants and their requirements in the environmental decision making	K_U03+, K_U10+
06	understands the impact of man's activity on the survival of wild growing plants	K_U04++, K_S03+, K_S05+
07	understands the necessity of updating knowledge on the methods used for biodiversity conservation and tracking down the results of restoration projects	K_S06+