

## DESCRIPTION OF THE COURSE OF STUDY

Course code	0521.2.OŚ1.B/C5.BOT	
Name of the course in	Polish	<i>Botanika</i>
	English	<i>Botany</i>

## 1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	Environment Protection
1.2. Mode of study	Full-time studies/part-time studies
1.3. Level of study	Undergraduate studies
1.4. Profile of study*	General academic
1.5. Person/s preparing the course description	Dr hab. Monika Podgórska
1.6. Contact	monika.podgorska@ujk.edu.pl; tel. 41 349 6324

## 2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	English/Polish
2.2. Prerequisites*	Basic knowledge of plant morphology

## 3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	Lecture – 15h Laboratory – 15h
3.2. Place of classes	Class-room based (UJK)
3.3. Form of assessment	Graded assignment
3.4. Teaching methods	<b>Lecture:</b> expository methods (explanation, informational lecture), problematic methods (problematic lecture), exhibiting methods (demonstration); <b>Laboratory:</b> expository methods (explanation); exhibiting methods (demonstration); practical methods (laboratory classes, practical classes)
3.5. Bibliography	<b>Required reading</b> Kornaś J., Medwecka-Kornaś A., 2002: Geografia roślin [Plants geography], PWN, Warszawa Szweykowska A., Szweykowski J., 2014: Botanika – morfologia [Botany – morphology] T. 1, Wydawnictwo Naukowe PWN, Warszawa Szweykowska A., Szweykowski J., 2014: Botanika – systematyka [Botany – systematics] T. 2, Wydawnictwo Naukowe PWN, Warszawa
	<b>Further reading</b> Szafer W., Zarzycki K. (red.), 1972: Szata roślinna Polski [Plant cover of Poland], PWN, Warszawa Kloc E. 2015: Thematic forest dictionary. CILP. Warszawa Kaźmierczakowa R., Bloch-Orłowska J., Celka Z., Cwener A., Dajdok Z., Michalska-Hejduk D., Pawlikowski P., Szczęśniak E. & Ziarnik K. 2016: Polish red list of pteridophytes and flowering plants. s. 44. Instytut Ochrony Przyrody Polskiej Akademii Nauk, Kraków

## 4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

4.1. Course objectives (including form of classes)
<p><b>Lecture:</b></p> <p>C1. Create of awareness in a range of the role of man in the synanthropization of plant cover and in formation and modelling the plant communities.</p> <p><b>Laboratory (Classes):</b></p> <p>C1. The student introduction to different concepts and definitions concerning the subject matter of conducted classes.</p> <p>C2. Formation of skills of microscopy and create a scientific herbarium, as well as learn to recognise the chosen common and rare plant species of the Polish flora.</p>
4.2. Detailed syllabus (including form of classes)
<p><b>Lectures:</b></p> <p>1. The basic rule of botanical nomenclature. Definitions of: plant cover, flora and vegetation (2h)</p> <p>2. The basic type of vegetation of Poland and its connection with the human impact (2h)</p> <p>3. Geographical and historical division of synanthropic flora. Components of synanthropization process (2h)</p>

M.P.

4. Anthropogenic changes of flora and plant communities (2h)
5. Vegetation levels of the Polish Mountains and review of the chosen mountain flora species (2h)
6. Review of the protected and threatened species (*Lycophytina*, *Pterophytina*, *Magnoliophytina*) with the habitat characteristic of their occurrence (2h)
7. Detailed characteristic of the most abundant families of the vascular plant species in the Polish flora (*Magnoliopsida* and *Liliopsida*) (2h)
8. Test pass (1h)

**Classes:**

1. Rules for drawing up of scientific herbarium. The breeding cycles of representatives of individual groups of plant species and their connection with abiotic environment conditions (2h)
2. Characteristic of *Bryophytina* subdivision. Microscopic observations (2h)
3. Characteristic and systematic review of chosen plant species of the *Lycophytina* subdivision. Microscopic observations (2h)
4. Characteristic and systematic review of chosen plant species of the *Sphenophytina* subdivision. Microscopic observations (2h)
5. Characteristic and systematic review of chosen plant species of the *Filicidae*. Microscopic observations (2h)
6. Exemplary plant species protected in Poland of *Ophioglossidae* and *Salviniaceae* – characteristic and microscopic observations (2h)
7. Identification of chosen vascular plant species – exercise work with key (2h)
8. Final test (1h)

**4.3 Intended learning outcomes**

Code	A student, who passed the course	Relation to learning outcomes
within the scope of <b>KNOWLEDGE:</b>		
W01	defines basic concepts in the field of morphology and systematic of plants and plant cover	OŚ1A-W02
W02	identifies the main exemplary plant species of the discussed subdivisions with particular emphasis on protected species and knows their structure; identifies basic types of plant communities of Poland	OŚ1A-W01
W03	explains relationship between mountain species and the vegetation levels in the mountains and relationship of basic types of flora and plant communities with the human impact	OŚ1A-W01 OŚ1A-W02
within the scope of <b>ABILITIES:</b>		
U01	prepares figures illustrating morphological structures of representatives of individual groups of plant species and figures of anatomical structure of chosen higher plants	OŚ1A-U01
U02	carries out macroscopic and microscopic observations in the correct way	OŚ1A-U01
U03	performs scientific herbarium in the correct way and works accordance with instruction	OŚ1A-U01
within the scope of <b>SOCIAL COMPETENCE:</b>		
K01	appears to be particularly cautious about collecting herbarium (do not collect protected species because he is aware of their role in biodiversity)	OŚ1A-K01
K02	is aware of proceedings in accordance with ecological ethics and a huge human impact on natural plant communities and their synanthropisation	OŚ1A-K01

**4.4. Methods of assessment of the intended learning outcomes**

Teaching outcomes (code)	Method of assessment (+/-)																							
	Exam oral/written <sup>±</sup>			Test*			Project <sup>±</sup>			Effort in class*			Self-study*			Group work <sup>±</sup>			Others <sup>±</sup> e.g. standardized test used in e-learning					
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes								
	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...			
W01				x	x								x											

*M.P.*

W02					x	x								x					
W03					x					x									
U01						x					x								
U02						x					x								
U03																			x
K01																			x
K02										x	x								

\*delete as appropriate

#### 4.5. Criteria of assessment of the intended learning outcomes

Form of classes	Grade	Criterion of assessment
lecture (L) (including e-learning)	3	50-65%
	3,5	66-75%
	4	76-85%
	4,5	86-95%
	5	96-100%
classes (C)* (including e-learning)	3	50-65%
	3,5	66-75%
	4	76-85%
	4,5	86-95%
	5	96-100%

#### 5. BALANCE OF ECTS CREDITS – STUDENT’S WORK INPUT

Category	Student's workload	
	Full-time studies	Extramural studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	30	30
<i>Participation in lectures*</i>	15	15
<i>Participation in classes, seminars, laboratories*</i>	15	15
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>	60	60
<i>Preparation for the lecture*</i>	5	5
<i>Preparation for the classes, seminars, laboratories*</i>	15	15
<i>Preparation for the exam/test*</i>	10	10
<i>Preparation the herbarium</i>	30	30
<b>TOTAL NUMBER OF HOURS</b>	<b>90</b>	<b>90</b>
ECTS credits for the course of study	3	3

\*delete as appropriate

**Accepted for execution** (date and legible signatures of the teachers running the course in the given academic year)

Dr hab. Monika Podgórska  
  
 dr hab. Monika Podgórska