

**Course name:****Monitoring and Conservation of Forest Biodiversity**

ECTS	2
Course status	optional
Course final assessment /evaluation of outcomes	graded credit
Prerequisite	none

**Main field of study:****Forestry**

Educational profile	General academic
Code of studies and education level	MSc
Semester of studies	summer
Language of instruction	English

**Course offered by:**

Name of faculty offering the course	Faculty of Forestry
Name of department offering the course	Department of Forest Biodiversity
Course coordinator	dr hab. inż. Anna Gazda, prof. UR

**Learning outcomes:**

Symbol of outcome	Description of the learning outcome	Reference to main field of study outcomes	Area symbol*
KNOWLEDGE – student knows and understands			
LES_MCFB_W01	The concept of biodiversity, different methods to collect the records of biodiversity of both natural and managed forests	LES2_W01 LES2_W02 LES2_W03	RL
SKILLS – student is able to			
LES_MCFB_U01	To collect the records of biodiversity.	LES2_U01 LES2_U02 LES2_U06	RL
SOCIAL COMPETENCIES – student is ready to:			
LES_MCFB_K01	Discuss with other participants, and to cooperate with them.	LES2_K01 LES2_K02	RL

**Teaching contents**

Lectures	20 hours	
Topics	<ol style="list-style-type: none"> <li>1. The concept of biodiversity</li> <li>2. Gradients of species richness</li> <li>3. Forest biodiversity</li> <li>4. Human influence on forest diversity</li> <li>5. Measurement of biodiversity (forest biodiversity indicators)</li> <li>6. Sampling design and data collection in biodiversity monitoring.</li> <li>7. Analysis and interpretation of natural forest biodiversity data</li> <li>8. Maintaining forest biodiversity</li> <li>9. Analysis and interpretation of managed forest biodiversity data. Stand management to maintain biodiversity</li> <li>10. Targets for forest biodiversity conservation</li> </ol>	
Accomplished learning outcomes	LES_MCFB_W01	
Means of verification, rules and criteria of assessment	The final grade results from the sum of points for the written exam, prepared presentation (minimum 50% of points to obtain the 3.0 mark); and the activity during our meetings. (60% of the final module assessment)	
Field exercises:	10 hours	
Topics	<ol style="list-style-type: none"> <li>1. Biodiversity in a natural forest.</li> <li>2. Biodiversity in a managed forest</li> <li>3. Biodiversity in a secondary forest</li> </ol>	

Accomplished learning outcomes	LES_MCFB_U01, LES_MCFB_K01
Means of verification, rules and criteria of assessment	Presentation of the analysis of the results of observations

#### References:

Basic	<ol style="list-style-type: none"> <li>1. Angelstam, P., Dönn-Breuss, M., Roberge, J.-M. 2004. Targets and tools for the maintenance of forest biodiversity. <i>Ecological Bulletins</i> 51: 11–24.</li> <li>2. Magurran, A. 2004. <i>Measuring Biological Diversity</i>. Blackwell Publishing, Malden, MA.</li> <li>3. Pullin A. S. 2002. <i>Conservation Biology</i>. Cambridge University Press Cambridge, UK</li> </ol>
Supplementary	<ol style="list-style-type: none"> <li>1. Rosenzweig, M.L. 2001. The four questions: What does the introduction of exotic species do to diversity? <i>Evol. Ecol. Research</i> 3: 361-367.</li> <li>2. Rosenzweig, M.L. 2003. <i>Win-win ecology: How the Earth's species can survive in the midst of human enterprise</i>. New York: Oxford University Press.</li> <li>3. Rosenzweig, M.L. 2003. Reconciliation ecology and the future of species diversity. <i>Oryx</i> 37: 194-205.</li> </ol>

#### Structure of learning outcomes

Area of academic study: R – Agricultural sciences, L - forestry	2 ECTS **
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#### Structure of student activity

Contact hours	38	hrs.	1.4 ECTS**
Including:			
lectures	20	hrs.	
classes and seminars	10	hrs.	
consultations	7	hrs.	
participation in research	0	hrs.	
obligatory traineeships	0	hrs.	
participation in examination	1	hrs.	
e-learning	...	hrs.	... ECTS**
student own work	16	hrs.	0.6 ECTS**

\*Areas of academic study in the fields of: H- humanities; S - social studies; P – biological sciences; T – technological sciences; M- medical, sport and health sciences; R – Agricultural, forestry and veterinary sciences; A – the arts

\*\* stated with an accuracy to 0.1 ECTS, where 1 ECTS = 25 - 30 hours of classes