

Module name	<b>General and taxonomic botany</b>
Module code	B-BM.065Eng + B-BM.066Eng
ISCED code	0511: Biology
Study cycle	I <sup>o</sup>
Semester	winter or summer
Responsible for this module	Dr Urszula Świdarska-Burek Department of Botany, Mycology and Ecology email: Urszula.swiderska-burek@poczta.umcs.lublin.pl
Language of instruction	English
Website	
Prerequisites	.....
ECTS	7.5
ECTS points hour equivalents	<p>Contact hours (work with an academic teacher) – 105  - lectures: 30  - labs: 45  - field classes: 30  ECTS score for teaching hours – 4</p> <p>Non-contact hours (students' own work) – 100  - preparation for the exam: 30  - preparation for labs: 30  - preparation of reports from laboratory exercises: 20  - literature study: 20  ECTS score for non-contact hours – 3.5</p> <p><b>Total number of ECTS points for the module – 7.5</b></p>
Learning outcomes verification methods	<p><b>Lecture</b> – final written test</p> <p><b>Laboratory classes</b> – halfterm tests, participation and activity during classes</p> <p><b>Field classes</b> – test of knowledge of the most important plant species and morphological features of plants occurring at the site of conducted classes</p>
Course full description	<p>The subject "botany" includes knowledge of organisms classified as plants. They are autotrophic, photosynthetic organisms, which are the most important producers of organic matter. They are also the main food base for humans and other animals, and a source of various medicinal substances. Plants include unicellular and thalli organisms (so-called algae), cryptogamous plants (bryophytes and ferns), and flowering plants (monocotyledonous and dicotyledonous).</p> <p>The main purpose of the course is to learn about the richness and diversity of plant species, their morphological and anatomical structure, environmental requirements, ways of reproduction, distribution, evolution, relationships with other organisms, and the role and importance in the natural environment. The issues of the classes also concern the great importance and role of plants in human life and in the economy, i.e. their practical use in the food industry, pharmaceutical</p>

	<p>industry, medicine and biotechnology.</p> <p>The lecture program also concerns: the impact of environmental factors on the development and spread of plants, principles of plant protection, discussion of plant taxonomy, characteristics of representatives of selected groups, including the most important components of European flora, selected plant communities, as well as protected species and plants important from a practical point of view (including medicinal plants).</p> <p>Laboratory classes relate to independent learning of the most important elements of the morphological and anatomical structure of plants, knowledge of plant organs and their modifications (roots, stems, leaves, flowers, fruits), recognition of structures formed in the relationship of plants with other organisms, as well as identification of species important from the taxonomic, floristic and practical point of view.</p> <p>Field classes present the flora of some Lubelszczyzna regions, including flora of forest and non-forest plant communities, and identifications of plants based on morphological features.</p>
Bibliography	<ol style="list-style-type: none"> <li>1. Bresinsky A., Körner Ch., Kadereit J.W., Neuhaus G., Sonnewald U. 2013. Strassburger's Plant Sciences Including Prokaryotes and Fungi. Vol. 1 &amp; 2. Springer – Verlag Berlin Heidelberg.</li> <li>2. Eames A.J., MacDaniels L.H. 1947. An introduction to plant anatomy. Mc Graw - Hill Book Company, pp. 427.</li> <li>3. Esau K. 1977. Anatomy of seed plants. John Wiley &amp; Sons, New York, pp. 550.</li> <li>4. Materials provided to students by the teacher.</li> </ol>
Learning outcomes	<p><b>Knowledge:</b> The graduate</p> <p>W1. Knows the terminology using in botany, the basic features of plant structure, their modifications; knows life cycles and the alternation of generations (metagenesis).</p> <p>W2. Knows the principles of plant classification; position of plants in the taxonomic system; evolution of plants, the most important representatives of the main taxonomic units.</p> <p>W3. Knows and understands the relationship between plants and other organisms and the environment.</p> <p>W4. Knows and understands the importance of preserving biodiversity and ensuring balance in the biosphere.</p> <p>W5. Knows the methods of plant protection, the most important protected plant species and invasive species threatening the native flora.</p> <p><b>Skills:</b> The graduate:</p>

	<p>U1. Is able to independently make the proper selection of literature, conduct critical analysis, evaluation and synthesis of scientific information, as well as properly plan and organize individual and group work.</p> <p>U2. Is able to formulate and solve problems, critically assess facts, draw correct conclusions from observations made using knowledge of fungi in everyday life and in activities for the environment and preservation of biodiversity.</p> <p>U3. Is able to plan and organize individual and team work aimed at efficient solution of problems and completion of assigned tasks.</p> <p><b>Social competence:</b> The graduate</p> <p>K1. Is ready to critically evaluate his/her and team actions and to be responsible for the consequences of these actions.</p> <p>K2. Is ready to critically assess his/her knowledge and to the importance of this knowledge in solving cognitive problems.</p>
Practice	-
Teaching methods	<p><b>Lectures:</b> multimedia presentation, demonstration, description, explanation, consultations.</p> <p><b>Laboratory classes:</b> use of microscopic techniques (light and stereoscopic microscopes), microscopic preparation, demonstration, multimedia presentation, explanation, description, consultations.</p> <p><b>Field classes:</b> practical exercises in the field, explanation, observation and description.</p>