

## Syllabus

|                     |                     |      |   |
|---------------------|---------------------|------|---|
| Module title:       | Medical Botany      | ECTS | 1 |
| Polish translation: | Botanika lekarska   |      |   |
| Course:             | Veterinary Medicine |      |   |

|  |   |  |  |
|--|---|--|--|
| Module language: English   |   | Stage: JM-FVM  |  |
| Form of studies: <input checked="" type="checkbox"/> intramural<br><input type="checkbox"/> extramural | Type of module: <input checked="" type="checkbox"/> basic<br><input type="checkbox"/> directional | <input type="checkbox"/> mandatory<br><input checked="" type="checkbox"/> elective | Semester: 3<br><input checked="" type="checkbox"/> winter semester<br><input type="checkbox"/> summer semester |
| Academic year: 2022/2023   |   | Catalogue number:  | .....  |

|   |  |  |                                |        |
|---|--|--|--------------------------------|--------|
| Module coordinator:   | dr hab. Marta Mendel, prof. SGGW   |  |                                |        |
| Teachers responsible for the module:                          | Academic teachers of the Institute of Veterinary Medicine<br>Department of Preclinical Sciences  |  |                                |        |
| Objectives of the module:                                     | During the course student acquires basic information on veterinary ethnopharmacology and phytotherapy. The main topics to be discussed include general characteristics of plant secondary metabolites and detailed characteristics of medicinal plant (extracts) which can be used to prevent/treat animal diseases.   |  |                                |        |
| Teaching forms, number of hours:                              | a) Lectures; hours 15;<br>b) Laboratory classes; hours ...;<br>c) Seminars; hours ...;<br>d) Clinical laboratories; hours ...;<br>e) Field exercises; hours ...;   |  |                                |        |
| Teaching methods:   | <ul style="list-style-type: none"> <li>Original multimedia presentations prepared by academic teacher <ul style="list-style-type: none"> <li>Discussion of original papers, finding a solution to presented problems during discussions based on information presented by a teacher</li> </ul> </li> <li>Consultations (1h/every second week)</li> </ul> Detailed schedule will be defined by the coordinator of the course at the beginning of semester.<br>Detailed organization of consultations will be defined by the coordinator of the course at the beginning of semester. |  |                                |        |
| Formal prerequisites and initial requirements:                | Passing the courses: biology, chemistry  |  |                                |        |
| Learning effects  | Course outcomes:   | Learning outcomes relative to the course outcomes  | Impact on the course outcomes* |        |
| Knowledge:  | 1  | student knows the situation when medicinal plants can be used to prevent/treat animal diseases | A.W.10                         | 1      |
|   | 2  | students describes the properties of selected medicinal plants                                 | A.W.16                         | 1      |
|   |  | students understands how and when to use medicinal plants as alternatives to antimicrobials    | A.W.17                         | 1      |
|   |  | student knows different types of formulations containing medicinal plants                      | A.W.16                         | 1      |
| Skills:   | 1  | student analyses critically available literature   | C.U.2                          | 1      |
|   | 2  |  |                                |        |
|   |  |  |                                |        |
| Competences:  | 1  | student is prepared to advise animal owner/farmer on the use of medicinal plants               | K.S.5                          | 1      |
|   | 2  | student reacts adequately to the expectations of animal owner in regards to phytotherapy       | K.S.2, K.S.3                   | each 1 |
|   |  |  |                                |        |
| Objectives of the module required to obtain learning effects: | To achieve all learning outcomes, students will acquire information on:<br>Lecture content: <ol style="list-style-type: none"> <li>Pharmacological &amp; toxicological insights into veterinary phytotherapy (2 hours)</li> <li>Plant material selection, collection &amp; preparation (1 hour)</li> <li>The use of medicinal plants to preserve the healthy condition of animals (2 hour)</li> <li>The use of medicinal plants in gastrointestinal disorders part I &amp; II (2 hours)</li> <li>The use of medicinal plants in respiratory disorders (1 hour)</li> </ol>          |  |                                |        |

|   | <p>6. The use of medicinal plants in skin problems (1 hour)</p> <p>7. The use of medicinal plants in kidney &amp; urinary tract disorders (1 hour)</p> <p>8. The use of medicinal plants in mammary glands disorders (1 hour)</p> <p>9. The use of medicinal plants in geriatric &amp; aging issues (1 hour)</p> <p>10. The use of medicinal plants in cancer patients (1 hour)</p> <p>11. Current challenges and perspectives of veterinary phytotherapy (2 hours)</p> <p>In addition, the lecturer will present basic rules of writing a scientific paper / report which is the form of the final assessment.</p>   |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
|---|---|------------------|-------|---------|------------------|---|----------------|-----|--------------------|-----|------------|-----|--------------|-----|-----------------|
| Assessment methods:   | <p>Short written project – an essay prepared according to the scientific requirements.</p> <p>In case of unforeseen, unusual circumstances mandatory remote teaching and remote assessment methods might be adopted.</p>  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| <p>Detail description of assessment methods;</p> <p>Formal documentation of learning outcome:</p>   | <p>At the end of the course each student gets a topic to be discussed in a written form (max 5 points). To pass the task one must obtain at least 51% of total number of points (at least 3 out of 5 points). Failed test can be repeated.</p> <p>Grading scale:</p> <table border="1"> <thead> <tr> <th>Number of points</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>0 – 2.5</td> <td>2 (insufficient)</td> </tr> <tr> <td>3</td> <td>3 (sufficient)</td> </tr> <tr> <td>3.5</td> <td>3.5 (sufficient +)</td> </tr> <tr> <td>4.0</td> <td>4.0 (good)</td> </tr> <tr> <td>4.5</td> <td>4.5 (good +)</td> </tr> <tr> <td>5.0</td> <td>5.0 (very good)</td> </tr> </tbody> </table> <p>No extra assessment methods are anticipated.</p> <p>eHMS entry.<br/>Records collected in the course portfolio i.e. individual records of student results, presence lists, database of oral and written questions, written assessments of the students.</p> | Number of points | Grade | 0 – 2.5 | 2 (insufficient) | 3 | 3 (sufficient) | 3.5 | 3.5 (sufficient +) | 4.0 | 4.0 (good) | 4.5 | 4.5 (good +) | 5.0 | 5.0 (very good) |
| Number of points  | Grade   |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 0 – 2.5   | 2 (insufficient)  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 3   | 3 (sufficient)  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 3.5   | 3.5 (sufficient +)  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 4.0   | 4.0 (good)  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 4.5   | 4.5 (good +)  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| 5.0   | 5.0 (very good)   |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| Elements impelling final grade:   | The result of final assessment (project) = 100% of the final grade  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| Teaching base:  | Lecture hall of the Institute of Veterinary Medicine  |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| <p>Mandatory and supportive materials :</p> <ol style="list-style-type: none"> <li>1. Veterinary Herbal Medicine, Eds: Wynn SG, Fougère BJ, Mosby, Elsevier Inc, 2007, doi:10.1016/B978-0-323-02998-8.X5001-X.</li> <li>2. Heilende Kräuter für Tiere. Pflanzliche Hausmittel für Hein- und Nutztiere. Eds. Brendieck-Worm C, Klarer F, Stroeger E. Haupt Verlag, 2015</li> <li>3. Drugs of Natural Origin. A treatise of pharmacognosy. Eds. Samuelsson G, Bohlin L. Apotekarsoctieteten, 2009</li> <li>4. Herbal Medicine. Expanded Commission E Monographs. Eds. Blumenthal M, Goldberg A, Brinckmann J. Integrative Medicine Communications, 2000</li> <li>5. Rational Phytotherapy, Eds. Schulz V, Hänsel R, Blumenthal M, Tyler VE. Springer-Verlag Berlin and Heidelberg GmbH &amp; Co. KG, 2011</li> <li>6. Fundamentals of Pharmacognosy and Phytotherapy, 3rd Edition, Eds: Heinrich M, Barnes J, Prieto-Garcia J, Gibbons S, Williamson EM, Elsevier, 2018</li> <li>7. Ethnoveterinary Botanical Medicine: Herbal Medicines for Animal Health, Eds. Katerere DR, Luseba D, CRC Press, 2010</li> <li>8. Phytotherapie in der Tiermedizin, Eds. Brendieck-Worm C, Melzig MF, Georg Thieme Verlag, 2021</li> </ol> <p>Relevant scientific publications including those of the module coordinator.</p> |   |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |
| ANNOTATIONS   |   |                  |       |         |                  |   |                |     |                    |     |            |     |              |     |                 |

\* 3 – complete and detailed, 2 – moderate, 1 – basic.

Quantitative summary of the module:

|  |               |
|--|---------------|
| Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS: | <b>30 h</b>   |
| Total ECTS points, accumulated by students during contact learning:  | <b>1 ECTS</b> |