

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | <b>Course name: Biology of ants</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2.  | University department: Department of Biodiversity and Evolutionary Taxonomy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.  | Course type: lectures, fieldwork and laboratory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4.  | Degree: <b>master</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.  | Semester: <b>summer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6.  | Number of hours: lectures: 10, fieldwork: 6, laboratory: 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7.  | Name, Surname, academic title: <b>Sebastian Salata, PhD</b><br><b>(sebastian.salata@uwr.edu.pl)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 8.  | <p>Course description/Content:</p> <p><b>Description:</b><br/>The course is a combination of lectures, fieldwork and laboratories. It starts with ten hours of lectures where students are introduced to the basic knowledge of ants' biology, ecology, morphology, and taxonomy. The second part (six hours of fieldwork) is focused on developing practical skills in ant collecting and species determination. The final part (14 hours of laboratories) will be devoted to developing practical skills in specimen preparation, collection management, and species determination.</p> <p><b>Content:</b><br/><u>Lecture:</u> Systematics of ants, characteristics of subfamilies, characteristics of genera known from Poland and Central Europe, ants' distribution and role in the ecosystem, methods of communication, foraging strategies, life cycles, social systems, social parasites, evolutionary trends, phylogeny, the importance of ants in nature and agriculture.<br/><u>Fieldwork:</u> introduction to the basic and most common methods of ants' collecting, developing and practicing skills on species determination on the subfamily, genus and species levels, recognizing the most common species and species-groups.<br/><u>Laboratory:</u> introduction to the basic methods of ants' preparation, studies on ants' morphology, developing experience in specimen determination on the subfamily, genus and species levels.</p> |
| 9.  | <p>Recommended literature:</p> <p>Czechowski, W.; Radchenko, A.; Czechowska, W.; Vepsäläinen, K. 2012. The ants of Poland with reference to the myrmecofauna of Europe. Fauna Poloniae 4. Warsaw: Natura Optima Dux Foundation, 496 pp<br/>Hölldobler, B.; Wilson, E. O. 1990. The ants. Cambridge, Mass.: Harvard University Press, xii + 732 pp<br/>Seifert, B. 2018. The ants of Central and North Europe. Iutra Verlags- und Vertriebsgesellschaft, Tauer, Germany, 407 pp</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 10. | <p>Form of credit:</p> <p>Lectures: exam<br/>Fieldwork and laboratory: continuous assessment</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 11. | Language: English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 12. | Number of ECTS: <b>2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |