

## SYLABUS

Nazwa przedmiotu/ Course title	Advanced Research Communication
Nazwa jednostki prowadzącej przedmiot/Unit name	Institute of Nature Conservation PAS
Kierunek studiów/Field of study	Doctoral School of Natural and Agricultural Sciences
Forma studiów/Type of study	Regular
Rodzaj przedmiotu/ Course type	Compulsory
Rok i semestr studiów/Year and semester	Summer semester 2021/2022
Stopień, imię i nazwisko koordynatora przedmiotu/ Name of co-ordinator	Dr hab. Agnieszka Bednarska, prof. IOP PAN
Stopień, imię i nazwisko osoby prowadzącej (osób prowadzących) zajęcia z przedmiotu/ Degree, name and surname of person(s) teaching the course	Prof. dr hab. Ryszard Laskowski (UJ) Dr hab. Marcin Czarnołęski, prof. UJ (UJ) Dr hab. Agnieszka Bednarska, prof. IOP PAN
Forma(y) zajęć, liczba realizowanych godzin/ Type of course, number of hours	lectures – 10 h, workshops – 20 h
<b>Cele przedmiotu/Aim of the course</b>	
Gaining knowledge on the communication of research to scientific community in the form of oral presentations, posters and publications	
Wymagania wstępne	None
Efekty kształcenia	<p><u>Wiedza/Knowledge:</u> Student knows how to:</p> <ul style="list-style-type: none"> <li>• search for scientific information, evaluate sources, select and integrate information;</li> <li>• write scientific manuscript at the level acceptable in the best international journals;</li> <li>• evaluate scientific quality of others' research;</li> <li>• effectively communicate scientific information to the community, using appropriate platforms;</li> <li>• participate actively in scientific discussions.</li> </ul> <p><u>Umiejętności/Skills:</u> Student is able to:</p> <ul style="list-style-type: none"> <li>• communicate his/her research to scientific community as oral presentations, posters, and research and review papers;</li> <li>• prepare a manuscript, submit it to an appropriate high rank scientific journal, and accept criticism from peers in a constructive way;</li> <li>• participate actively in the peer review system: can assess the quality of research and a manuscript or grant proposal, can communicate his opinion in a polite and constructive manner;</li> <li>• communicate science to public through popular lectures and articles, active participation in public discussions, and consultancy.</li> </ul> <p><u>Kompetencje społeczne/Attitudes:</u></p> <ul style="list-style-type: none"> <li>• student understands that science is based on full honesty and transparency, hence when doing research and communicating</li> </ul>

	<p>its results, all details have to be specified in a way that is clear and detailed enough to let others repeat exactly the same study;</p> <ul style="list-style-type: none"> <li>• student is ready to accept comments, including criticism, in a constructive way, and understands that this is the best tool to improve his/her scholarly work;</li> <li>• student understands the need to share his/her research results with general public and the role of this process in the educational and financing systems</li> <li>• student understands and accepts that an important part of scientific approach is dissemination of her/his research results and exposition of them to falsification tests;</li> <li>• student perceives other scientists as partners in discussion, even if they represent different fields of science;</li> <li>• student understands that even strong criticism should be always expressed in a polite and constructive manner.</li> </ul>
<p>Treści programowe / Program content</p>	
<p>The lectures will familiarize PhD students with the most important issues in writing scientific articles, making oral and poster conference presentations, and reviewing others work. Examples of well and purely done work will be presented and discussed with PhD students to pinpoint most important and common mistakes, and to learn the principles of good writing and presenting the work.</p> <p>During workshops PhD students will learn how to search and evaluate scientific information, and how to communicate science to the public; PhD students will be interviewed about different topics related to their specialties, but also to issues of more general interest.</p> <p>Each PhD student will submit a short research article and a review of a manuscript. This will require effective use of the skills learned in the first part of the course: information search, its verification, and summarizing the acquired knowledge.</p> <p>Each PhD student will also give oral presentation which will be followed by discussion, simulating conditions of a typical scientific meeting. This will expose PhD students to possible problems with understanding questions and formulating clear replies. The talks and discussions will be taped and analyzed later by the whole group, under teacher's supervision.</p> <p>PhD students will also prepare posters aimed at general public, which will be reviewed by teachers and fellow PhD students. The posters should aim at popularizing scientific results.</p>	
<p>Metody dydaktyczne/ Teaching methods</p>	<p>The methods include lecture, discussion, group project, individual project, review, self-evaluation, presentation:</p> <ul style="list-style-type: none"> <li>• lectures introducing topics and teaching theoretical knowledge; lectures include examples of effective library and data-base queries, well prepared and faulty scientific reports and papers, polite and constructive vs. impolite and unconstructive reviews, etc.; lectures explain the basis of communication rules and methods that increase efficiency of presentation.</li> <li>• workshops teaching practical skills; workshops include training in research paper writing and reviewing scientific manuscripts, preparation of different types of presentations (oral, poster), presentation in front of group of people with video-recording.</li> </ul>

Sposób(y) i forma(y) zaliczenia / Evaluation	Passing the course with a grade based on: <ul style="list-style-type: none"> <li>• short scientific paper based either on own data or on meta-analysis – 30%</li> <li>• manuscript review – 20%</li> <li>• oral talk with computer-based presentation of scientific data to scientific community – 20%</li> <li>• poster preparing and presentation to general public – 20%</li> <li>• active participation in discussions (including critical evaluation of other presentations) – 10%</li> <li>• attendance of at least 26 hours out of 30</li> </ul>
Metody i kryteria oceny/ Methods and criteria of assessment	Evaluation of written reports and presentations. Evaluation of activity of PhD students during practical.
Całkowity nakład pracy studenta potrzebny do osiągnięcia założonych efektów w godzinach oraz punktach ECTS /  Total student workload needed to achieve the assumed effects in hours and in ECTS credits	Participation in the lectures (10 h) and workshops (20 h). Self-preparation of oral talk and poster (15 h), preparation of short scientific paper and manuscript review (group work, 15 h)  2 ECTS
Język wykładowy/ Language	English
Praktyki zawodowe w ramach przedmiotu / Internship as part of the subject	-
Literatura / Literature	<p>Carpenter, K. 2001. How to write a scientific article. The Journal of Paleontological Sciences: JPS.TD.07.0001. (<a href="http://www.aaps-journal.org/submission%20pdf/How%20to%20Write%20a%20Scientific%20Paper.pdf">http://www.aaps-journal.org/submission%20pdf/How%20to%20Write%20a%20Scientific%20Paper.pdf</a>).</p> <p>Collier, J. M., Edmondson, S.-J. 2011. How to write a scientific article. Face Mouth &amp; Jaw Surgery, 1: 5-10.</p> <p>Comfort, J. 1996. Effective presentations: student's book Oxford University Press.</p> <p>Day, R. A., Gastel, B. 2006. How to write and publish a scientific paper. Cambridge University Press, 320 pp.</p> <p>Fiedland, A. J., Folt, C. L. 2009. Writing succesful science proposals. Yale University, 201 pp.</p> <p>Katz., M. J. 2009. From research to manuscript. A guide to scientific writing. Second edition. Springer, 205 pp.</p> <p>McCarthy, M., O'Dell, F. 2008. Academic vocabulary in use. Cambridge University Press, 176 pp.</p> <p>Shubrook, J.H., Kase, J., Norris, M. 2010. How to write a scientific article. Osteopathic Family Physician, 2: 148-152.</p> <p>Stirling, J.W. 2001. Writing articles for scientific journals: A basic guide. Australian Journal of Medical Science, 22: 171-182.</p>

	<p>Swales, J. M., Feak, C. B. 2009. Academic writing for graduate students: essential tasks and skills. University of Michigan, 331 pp.</p> <p><a href="http://www.sfedit.net">www.sfedit.net</a></p> <p>DVD:</p> <p><a href="http://www.bookcity.pl/effective-presentations-dvd/pid/10021">http://www.bookcity.pl/effective-presentations-dvd/pid/10021</a></p>
<p>Podpis koordynatora przedmiotu/ Signature of coordinator</p>	<p>Dr hab. Agnieszka Bednarska</p>
<p>Podpis kierownik Szkoły Doktorskiej/ Signature of the Head of Doctoral School</p>	<p>Dr hab. Grażyna Szarek-Łukaszewska</p>