Adam Mickiewicz University in Poznań

Faculty of Chemistry

ChemInter *- wysokiej jakości międzynarodowy i interdyscyplinarny program studiów doktoranckich realizowany na Wydziale Chemii Uniwersytetu im. Adama Mickiewicza w Poznaniu*

Managing an independent research project

dr inż. Krystyna Malińska

Researcher's workshop

Field of science	Interdycyplinarny
Teaching method	Lecture combined with a workshop
Language	English
ECTS credits	1
Numbers of hours	15
Aims of the course	The course will address the complexity of performing independent research and help the doctoral candidates to get better understanding of the research process and the type of work they will have to do in order to plan, construct and manage an independent research project (such as a doctoral research project). The course aims at providing the fundamentals of constructing and managing a research project, in particular an individual research project, and walking the students through the processes of putting the research objectives and plan into the frame of a research project using the available resources.
Course contents	1. Performing independent research – advantages, disadvantages and challenges; PhD as an independent research project 2. Translating the research concept into a project structure 3. Building a research proposal (general considerations, understanding funding sources and rules, proposals as "elevator pitch", budget preparation) 4. Project management tools (tasks and resources, project schedule, Ghantt charts and critical paths) 5. Measures of performance (milestones, key performance indicators 6. Risk analysis - identifying project risks and formulating a mitigation plan) 7. Managing a self-directed research project 8. Intellectual property within an individual research project 9. Plagiarism and academic integrity 10. Peer collaboration and critic 11. Open science – guide to open access publishing
Prerequisites and co-requisites	None

The course realized in project number POWR.03.02.00-00-I026/16 co-financed under the Operational Program Knowledge Education Development of priority axis III: Higher education for economy and development, activities: 3.2 PhD studies

Learning outcomes	
On completion of the course PhD candidates will be able to:	**Assessment mode**
The graduate is able to make use of knowledge from different fields of science for creative identification, formulation and solving of complex problems and research work, in particular: - to define the aim of research work, formulate research hypotheses, - to develop and creatively apply research methods, techniques and tools - to draw conclusions.	Course assignment: a research proposal
The graduate is able to critically analyze and evaluate results of research work, experts' analyses, and other work of creative character and their contribution to science development.	
The graduate is able to plan and realize individual research projects.	
Literature	1. McCormac C. Research Project Success. The Essential Guide for Science and Engineering Students, Royal Society of Chemistry, 2012 2. Kennett B. Planning and Managing Scientific Research. A guide for the beginning researcher. ANU Press, 2014 3. vom Brocke J., Lippe S. 2015. Managing collaborative research project: A synthesis of project management literature and directives for future research. International Journal of Project Management 33(5), 1022-1039
Additional information	**Schedule:** **Group 1:** 1. 12.04.2018 (Thu) – 13:15-14:45 (2h) 2. 13.04.2018 (Fri) – 10:00-13:00 (4h) 3. 19.04.2018 (Thu) – 13:15-14:45 (2h) 4. 20.04.2018 (Fri) – 10:00-13:00 (4h) 5. 27.04.2018 (Fri) – 10:00-12:15 (3h) **Group 2:** 1. 12.04.2018 (Thu) – 15:00-16:30 (2h) 2. 13.04.2018 (Fri) – 13:30-16:30 (4h) 3. 19.04.2018 (Thu) – 15:00-16:30 (2h) 4. 20.04.2018 (Fri) – 13:30-16:30 (4h) 5. 27.04.2018 (Fri) – 12:30-14:45 (3h) **Contact:** malinska.krystyna@gmail.com

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