<table>
<tr><td>Course code</td><td></td></tr>
<tr><td>Type and description</td><td>Background Course</td></tr>
<tr><td>ECTS credit</td><td>2</td></tr>
<tr><td>Course name</td><td>Methods of Scientific Research</td></tr>
<tr><td>Course name in Polish</td><td>Metodyka pracy badawczej</td></tr>
<tr><td>Language of instruction</td><td>English</td></tr>
<tr><td>Course level</td><td>8 PRK</td></tr>
<tr><td>Course coordinator</td><td>Prof. dr hab. inż. Alina Kunicka-Styczyńska (0000-0002-4611-9109)</td></tr>
<tr><td>Course instructors</td><td>Prof. dr hab. inż. Alina Kunicka-Styczyńska (0000-0002-4611-9109)</td></tr>
<tr><td>Delivery methods and course duration</td><td>
<table>
<tr><th></th><th>Lecture</th><th>Tutorials</th><th>Laboratory</th><th>Project</th><th>Seminar</th><th>Other</th><th>Total of teaching hours during semester</th></tr>
<tr><td>Contact hours</td><td>0</td><td>15</td><td>0</td><td>0</td><td>0</td><td>0</td><td>15</td></tr>
<tr><td>E-learning</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td></tr>
<tr><td>Assessment criteria (weightage)</td><td>0,00</td><td>1,00</td><td>0,00</td><td>0,00</td><td>0,00</td><td>0,00</td><td></td></tr>
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<tr><td>Course objective</td><td>The objective of the course is gaining knowledge and skills in:
1. Defining the aims and goals of research, searching and formulating research problems in food technology and nutrition discipline
2. Defining and formulating research components in evidence-based research
3. A scientific paper preparation – main compounds and experimental data presenting, drawing conclusions
4. Presenting research results – conference speech, short communications</td></tr>
<tr><td>Learning outcomes</td><td>After completing the course a student is able to:
1. Formulate research hypothesis taking into account both the needs of the food industry and the consumer, filling the gap in a specific research area – W4, U1, U2, K1
2. Choose the best research approach – observational, experimental – W4, U1, U2, K1
3. Define the methodological approach on the basis of literature review – W4, U1, U2, K1
4. Formulate data analysis – W4, U1, U2, K1
5. Presenting the research results - U1, U2, K1</td></tr>
<tr><td>Assessment methods</td><td>Learning outcomes 1-4 – manuscript draft
Learning outcome 5 – presentation
The final evaluation is based on:
1. preparation a draft of literature review - 70%
2. presentation - 30%</td></tr>
<tr><td>Prerequisites</td><td>Not applicable</td></tr>
<tr><td>Course content with delivery methods</td><td>TUTORIALS
1. Social needs and demands of food industry – searching for the research problem
2. Research problem formulation: hypothesis, scientific question, aims and objectives formulation
3. Resources of scientific information
4. Analytical approach and critical literature review
5. Meta-analysis of data
6. Presentation of the research data as the opportunity for critical discussion in the scientific world</td></tr>
<tr><td>Basic reference materials</td><td>1. Özhan Çaparlar C., Dönmez A. What is scientific research and how can it be done. Turk J Anaesthesiol Reanim 2016, 44, 212-218
2. Dunn K.P. Scientific Research and Methodology. https://bookdown.org/pkaldunn/Book/
3. Rewhorn S. Writing your successful literature review. Journal of Geography in Higher Education 2018, 42, 143-147
4. Booth A., Sutton A., Papaioannou D., Systematic Approaches to a Successful Literature Review, Sage Publications Ltd, London 2016</td></tr>
<tr><td>Other reference materials</td><td>1. Kumar R., Research Methodology. A step-by-step Guide for Beginners, Sage Publications Ltd, London 2011
2. Mack N., Woodsong C., MacQueen K.M., Guest G., Namey, E. 2005. Qualitative research methods: a data collector's field guide. North Carolina: Family Health International</td></tr>
<tr><td>Average student workload outside classroom</td><td>35h</td></tr>
<tr><td>Comments</td><td>-</td></tr>
<tr><td>Last update</td><td>25.01.2022</td></tr>
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