<table>
<tr><td>Course code</td><td></td></tr>
<tr><td>Type and description</td><td>Elective Course</td></tr>
<tr><td>ECTS credit</td><td>1</td></tr>
<tr><td>Course name</td><td>Role of Phytocomponents in Prevention of Civilization Diseases</td></tr>
<tr><td>Course name in Polish</td><td>Rola fitokomponentów w prewencji chorób cywilizacyjnych</td></tr>
<tr><td>Language of instruction</td><td>English</td></tr>
<tr><td>Course level</td><td>PhD Studies</td></tr>
<tr><td>Course coordinator</td><td>Dr hab. inż. Monika Kosmala (0000-0002-9018-3028)</td></tr>
<tr><td>Course instructors</td><td>Dr hab. inż. Monika Kosmala (0000-0002-9018-3028)</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></td><td></td><td></td><td>15</td><td></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></td></tr>
<tr><td>Assessment criteria (weightage)</td><td></td><td></td><td></td><td>1,00</td><td></td><td>0,00</td><td></td></tr>
</table>
</td></tr>
<tr><td>Course objective</td><td>Students' acquaintance with the role of phytocomponents in healthy human diet. Students' acquaintance with the health risks resulting from a poor diet.</td></tr>
<tr><td>Learning outcomes</td><td>After completing the course student is able to:
1. Recall and define phytocomponents present in the human diet – outcomes W4, K1
2. Explain the role of proper nutrition to maintain human health – outcomes, K1
3. Evaluate the human diet in terms of its impact on health – outcomes W4, K1, U4

Effects: W4, U4, K1</td></tr>
<tr><td>Assessment methods</td><td>Effect 1-3.
Assessment of the project presentation prepared by the student (50%) and assessment of the student's activity during lectures and sessions (50%)</td></tr>
<tr><td>Prerequisites</td><td>Knowledge about the basics of human nutrition</td></tr>
<tr><td>Course content with delivery methods</td><td>Human civilization diseases such as coronary heart disease, tumors, metabolic disorders such as diabetes, obesity. The role of free radicals and oxidative stress in the pathogenesis of human inflammatory diseases. The impact of human diet and lifestyle on the risk of civilization diseases development. The role of individual phytocomponents such as dietary fiber, oligosaccharides, polyphenols, vitamins, sterols, lipids in a healthy human diet. Antioxidative and anti-inflammatory activity of phytochemicals. Natural phytoestrogens of legume seeds.</td></tr>
<tr><td>Basic reference materials</td><td>1. Grossi E., Fabio Pace F. (Eds). Human Nutrition from the Gastroenterologist's Perspective Lessons from Expo Milano, Springer, 2015
2. Mattila-Sandholm T., Saarela M. Functional Dairy Products. Woodhead Publishing Ltd., Cambridge, 2000</td></tr>
<tr><td>Other reference materials</td><td>1. Juskiewicz J, Jankowski J., Kosmala M., Zduńczyk Z., Słomiński B. A., Zduńczyk P. (2016). The effects of dietary dried fruit pomaces on growth performance and gastrointestinal biochemistry of turkey poults. Journal of Animal Physiology and Animal Nutrition 100, 967-976
2. Fotschki B, Juśkiewicz J, Jurgoński A, Kołodziejczyk K, Milala J, Kosmala M, Zduńczyk Z. (2016) Anthocyanins in strawberry polyphenolic extract enhance the beneficial effects of diets with fructooligosaccharides in the rat cecal environment. PLoS ONE 11(2): e0149081
3. Juśkiewicz J, Jurgoński A, Kołodziejczyk K, Kosmala M, Milala J, Zduńczyk Z, Fotschki B, Żary-Sikorska E. 2016. Blood glucose lowering efficacy of strawberry extracts rich in ellagitannins with different degree of polymerization in rats. Polish Journal of Food Nutrition and Sciences 66, 109-117
4. Jankowski J. Juśkiewicz J., Zduńczyk P., Kosmala M., Zieliński H., Antoszkiewicz Z., Zduńczyk Z. 2016. Antioxidant status of blood and liver of turkeys fed diets enriched with polyunsaturated fatty acids and fruit pomaces as a source of polyphenols. Polish Journal of Veterinary Sciences 19, 89-98</td></tr>
<tr><td>Average student workload outside classroom</td><td>10 h</td></tr>
<tr><td>Comments</td><td>-</td></tr>
<tr><td>Last update</td><td>06.03.2023</td></tr>
</table>