**SYLLABUS**

**regarding the qualification cycle FROM 20242025 TO 20242025**

1. Basic Course/Module Information

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| --- | --- |
| Course/Module title | Dietetic pastry products |
| Course/Module code \* |  |
| Faculty (name of the unit offering the field of study) | Collegium of Natural Science |
| Name of the unit running the course | Institute of Food Technology and Nutrition |
| Field of study | Food Technology and Human Nutrition |
| Qualification level  | First degree studiesSecond degree studies |
| Profile |  |
| Study mode | stationary |
| Year and semester of studies | 2024/205Summer semester |
| Course type | laboratory |
| Language of instruction | English |
| Coordinator | Greta Adamczyk, Ph.D. |
| Course instructor | Greta Adamczyk, Ph.D. |

\* - as agreed at the faculty

1.1.Learning format – number of hours and ECTS credits

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Semester(n0.) | Lectures | Classes | Colloquia | Lab classes | Seminars | Practical classes | Internships | others | **ECTS credits**  |
|  |  |  |  | 30 |  |  |  |  | 5 |

1.2. Course delivery methods

- conducted in a traditional way

1.3. Course/Module assessment (exam, pass with a grade, pass without a grade)

pass with a grade

2. Prerequisites

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| Carbohydrate technology, Cereals technology, Human nutrition, Dietetics, Food chemistry |

3. Objectives, Learning Outcomes, Course Content, and Instructional Methods

3.1. Course/Module objectives

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| --- | --- |
| O1 | Introduction to the market proposals in the field of supplementation and substitution of prescription components of pastry products |
| O2 | Indication of the impact of the modification of raw materials to product quality and technological process. |
| O3 | Description and make dietary pastry product. |

3.2. Course/Module Learning Outcomes (to be completed by the coordinator)

|  |  |  |
| --- | --- | --- |
| Learning Outcome | The description of the learning outcome defined for the course/module | Relation to the degree programme outcomes |
| LO\_01 | can indicate health-promoting effects of the use of replacements and additions in the production of dietetic pastry products | K2\_U01, K2\_U06 |
| LO\_02 | analyses impact of the additional substances on the process technology and is able to select the optimal modifications of standard production parameters | K2\_U05, K2\_U08 |
| LO\_03 | student can interact and work in a group to solve technological analytical and technical problems | K2\_K02 |

**3.3. Course content (to be completed by the coordinator)**

1. Lectures

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| Content outline |
|  |

1. Classes, tutorials/seminars, colloquia, laboratories, practical classes

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| Content outline  |
| 1. Dietetic recipe of reduced-calorie cakes - product design and assessment of effect of for the sugar substitutes or mimetics on the quality of products. |
| 2. Dietetic recipe of reduced-calorie pastry - product design and assessment of effect of for the fat substitutes or mimetics on the quality of products. |
| 3. Student’s design and make dietary pastry product - recipe, technology, organoleptic assessment  |

3.4. Methods of Instruction

Laboratory classes: designing and conducting experiments

4. Assessment techniques and criteria

4.1 Methods of evaluating learning outcomes

|  |  |  |
| --- | --- | --- |
| Learning outcome | Methods of assessment of learning outcomes (e.g. test, oral exam, written exam, project, report, observation during classes) | Learning format (lectures, classes,…) |
| LO-01 | report, discussion | laboratory classes |
| LO-o2 | report, discussion, project | laboratory classes |
| LO\_03 | observation during classes | laboratory classes |

4.2 Course assessment criteria

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| --- |
| Forms of assessment: laboratory work reports and project.The grade of the subject is determined by the total points of the project and report. Passing exercises (> 50% of the maximum number of points): satisfactory 51-59%, satisfactory plus 60-69%, good 70-79%, good plus 80-89%, very good> 90%.Requirement is to reach all learning outcomes. |

5. Total student workload needed to achieve the intended learning outcomes

– number of hours and ECTS credits

|  |  |
| --- | --- |
| Activity | Number of hours |
| Scheduled course contact hours | 30 |
| Other contact hours involving the teacher (consultation hours, examinations) | 30 |
| Non-contact hours - student's own work (preparation for classes or examinations, project) | 90 |
| Total number of hours | 150 |
| Total number of ECTS credits | 5 |

\* One ECTS point corresponds to 25-30 hours of total student workload

6. Internships related to the course/module

|  |  |
| --- | --- |
| Number of hours | *-* |
| Internship regulations and procedures | *-* |

7. Instructional materials

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| Compulsory literature:1. Pasha, I. M. R. A. N., Butt, M. S., Anjum, F. M., & Shehzadi, N. (2002). Effect of dietetic sweeteners on the quality of cookies. Int. J. Agric. Biol, 4(2), 245-248.
2. Rodríguez‐García, J., Puig, A., Salvador, A., & Hernando, I. (2012). Optimization of a sponge cake formulation with inulin as fat replacer: structure, physicochemical, and sensory properties. Journal of Food Science, 77(2), C189-C197.
3. Gao, J., Brennan, M. A., Mason, S. L., & Brennan, C. S. (2016). Effect of sugar replacement with stevianna and inulin on the texture and predictive glycaemic response of muffins. International Journal of Food Science & Technology, 51(9), 1979-1987.
4. Nourmohammadi, E., & Peighambardoust, S. H. (2016). New concept in reduced‐Calorie sponge cake production by xylitol and oligofructose. Journal of food quality, 39(6), 627-633.
5. Renzetti, S., & Jurgens, A. (2016). Rheological and thermal behaviour of food matrices during processing and storage: relevance for textural and nutritional quality of food. Current Opinion in Food Science, 9, 117-125.
 |
| Complementary literature: 1. Mohammed, I. K., Skamniotis, C. G., & Charalambides, M. N. (2019). Developing Food Structure for Mechanical Performance. Handbook of Food Structure Development, 18, 199. |

Approved by the Head of the Department or an authorised person