SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

# Public health nutrition
Educational subject description sheet

## Basic information

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|---|---|
| **Field of study**<br>Food Science - Technology and Nutrition | **Didactic cycle**<br>2023/24 |
| **Speciality**<br>- | **Subject code**<br>NoZTNS_D.120K.04177.23 |
| **Organizational unit**<br>Faculty of Food Technology | **Lecture languages**<br>english |
| **Study level**<br>first cycle (bachelor's degree) | **Mandatory**<br>Elective subjects |
| **Study form**<br>full-time studies | **Block**<br>Major subjects |
| **Education profile**<br>General academic | **Disciplines**<br>Food technology and nutrition |

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| **Coordinator** | Dawid Madej |

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| **Teacher** | Dawid Madej, Joanna Kałuża, Ewa Sicińska, Maria Szmidt, Agata Białecka-Dębek |

| **Period**<br>Semester 6 | **Examination**<br>Pass with grade<br><br>**Activities and hours**<br>Lecture: 30<br>Auditorium exercises: 15 | **Number of ECTS points**<br>3 |
|---|---|---|

## Goals

| Code | Goal |
|---|---|
| C1 | The aim of the course is to provide knowledge, skills and competences relating to knowledge the fundamental issues in public health nutrition. |

# Subject's learning outcomes

| Code | Outcomes in terms of | Effects | Examination methods |
|------|----------------------|---------|---------------------|
| **Knowledge – Student knows and understands:** | | | |
| W1 | fundamental problems in public health nutrition and indicators for the evaluation of diet quality | TN_K1_W03, TN_K1_W04 | Written credit |
| W2 | the tools, statistical analysis and rules of conducting epidemiological and public health research | TN_K1_W03, TN_K1_W04 | Written credit |
| **Skills – Student can:** | | | |
| U1 | construct and validate questionnaires used in nutritional studies | TN_K1_U03, TN_K1_U04 | Report |
| U2 | evaluate the quality of scientific publication on public health issues | TN_K1_U02 | Report |
| U3 | perform statistical analysis in epidemiological and public health research | TN_K1_U02 | Report |
| U4 | use dietary patterns to evaluate the risk of cardiovascular diseases | TN_K1_U02 | Report |
| **Social competences – Student is ready to:** | | | |
| K1 | work individually and in a team and is aware of constant training and use of objective sources of information | TN_K1_K02 | Report |

# Study content

| No. | Course content | Subject's learning outcomes | Activities |
|-----|----------------|-----------------------------|------------|
| 1. | Lectures:<br><br>• Fundamental issues in public health nutrition.<br><br>• Based on meta-analyses, the role of nutrition in preventing diet-related diseases, including cancer, cardiovascular diseases, and chronic obstructive pulmonary disease. Nutritional strategies to improve cognitive function.<br><br>• Nutritional factors and well-being and symptoms of depression.<br><br>• Dietary Aspects of successful aging.<br><br>• Future strategies in public health nutrition compared to other lifestyle factors. | W1, W2, U2 | Lecture |

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|---|---|---|---|---|
| 2. | Classes:<br><br>• Rules for constructing questionnaires used in nutritional studies, formulating purposes and hypotheses. Indicators for the evaluation of diet quality - practical application.<br><br>• Validation of the food frequency questionnaire.<br><br>• Evaluating the quality of scientific publication on public health issues.<br><br>• Types of studies in nutritional epidemiology.<br><br>• Practical aspects of statistical analysis in nutritional studies. Survival analysis in public health nutrition studies.<br><br>• Meta-analysis of epidemiological studies. | U1, U2, U3, U4, K1 | | Auditorium exercises |

# Course advanced

| Activities | Methods of conducting classes |
|---|---|
| Lecture | Lecture, Discussion, Teamwork |
| Auditorium exercises | Discussion, Problem solving, Teaching technique in the form of play, exact, task, Teamwork, Individual work, Observation |

| Activities | Examination method | Percentage |
|---|---|---|
| Lecture | Written credit | 50% |
| Auditorium exercises | Report | 50% |

| Activities | Credit conditions |
|---|---|
| Lecture | Obtaining 51% of the points from written exam |
| Auditorium exercises | Obtaining 51% of the points from practical tasks |

# Literature

**Obligatory**

1. Buttriss J., Welch A., Kearney J., Lanham-New S.,: Public Health Nutrition, 2nd Edition. Wiley-Blackwell, 2017.
2. Gibney M., Margetts B., Kearney J., Arab L.: Public Health Nutrition. Wiley-Blackwell, 2004.
3. Lassale C., Batty G.D., Baghdadli A., Jacka F., Sánchez-Villegas A., Kivimäki M., Akbaraly T.: Healthy dietary indices and risk of depressive outcomes: a systematic review and meta-analysis of observational studies. Molecular Psychiatry, 2019, 24:965–986.

**Optional**

1. Gil Á, Martinez de Victoria E, Olza J. Indicators for the evaluation of diet quality. Nutricion Hospitalaria, 2015, 31 Suppl 3:128-44.
2. Ross A.C., Caballero B., Cousins R.J., Tucker K.J., Ziegler T. Modern Nutrition in Health and Disease. 2012, Wolters Kluwer Health.
3. Hebel J.R (2013): Study Guide to Epidemiology and Biostatistics, Jones & Bartlett Pub Inc.
4. Fernandez V. (2020): Fundamentals of Research Methodology, OmniaScience.
5. Willett W. (2012): Nutritional Epidemiology, Oxford Univ Pr.

# Calculation of ECTS points

| Activity form | Activity hours* |
|---|---|
| Lecture | 30 |
| Auditorium exercises | 15 |
| Preparation for the exam | 20 |
| Preparation for exercises | 10 |
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| **Student workload** | **Hours**<br>75 |
| **Number of ECTS points** | **ECTS**<br>3 |

* hour means 45 minutes

# Effects

| Code | Content |
|---|---|
| TN_K1_K02 | The graduate is ready to complete professional duties in a socially responsible manner, enterprising, ethical, compatible with the public interest and also with the respect for professional tradition, and for the right to intellectual property protection |
| TN_K1_U02 | The graduate can assess the composition, energy and nutritional value of food products, determine their impact on the growth, development, functioning and health of the body, assess the diet, and nutritional status, and use the obtained results to rationalize the nutrition of individuals and different population groups |
| TN_K1_U03 | The graduate can select methods and tools to make observations, measurements, and calculations in the field of phenomena occurring during processing, storage, research of food, human nutrition and consumer behaviour on the food market, and critically analyze and interpret the obtained data, assess the credibility of own actions |
| TN_K1_U04 | The graduate can analyze and evaluate the existing solutions appropriate for the food economy, identify problems and opportunities for professional activity, search for new solutions, and ways of their implementation using modern tools, including experiments, analytical methods, computer simulations, information and communication techniques, and others |
| TN_K1_W03 | The graduate knows and understands the composition and properties of raw materials, auxiliaries, food additives, and food industry products, the possibilities and conditions of use of them in food production, taking into account the principles of sustainable development and their impact on human health |
| TN_K1_W04 | The graduate knows and understands the theoretical basis of phenomenon and changes occurring in raw materials, semi-finished products, and food products in a natural way, and under the influence of technological processes, food storage and testing |