Public health nutrition

Educational subject description sheet

Basic information

Field of study Food Science - Technology and Nutrition **Speciality** - **Organizational unit** Faculty of Food Technology **Study level** first cycle (bachelor's degree) **Study form** full-time studies **Education profile** General academic	**Didactic cycle** 2023/24 **Subject code** NoZTNS_D.120.04177.23 **Lecture languages** english **Mandatory** Elective subjects **Block** Major subjects **Disciplines** Food technology and nutrition

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

Period	**Examination**	**Number of ECTS points**
Semester 6	Pass with grade **Activities and hours** Lecture: 30 Auditorium exercises: 15	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: • Fundamental issues in public health nutrition. • 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. • Nutritional factors and well-being and symptoms of depression. • Dietary Aspects of successful aging. • Future strategies in public health nutrition compared to other lifestyle factors.	W1, W2, U2	Lecture
2.	Classes: • Rules for constructing questionnaires used in nutritional studies, formulating purposes and hypotheses. Indicators for the evaluation of diet quality - practical application. • Validation of the food frequency questionnaire. • Evaluating the quality of scientific publication on public health issues. • Types of studies in nutritional epidemiology. • Practical aspects of statistical analysis in nutritional studies. Survival analysis in public health nutrition studies. • 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
Student workload	**Hours** 75

Number of ECTS points	ECTS 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