SZKOŁA GŁÓWNA GOSPODARSTWA WIEJSKIEGO

Technological design of food gastronomy plants

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.120.02465.23 **Lecture languages** english **Mandatory** Elective subjects **Block** Major subjects **Disciplines** Food technology and nutrition

Coordinator	Marzena Tomaszewska
Teacher	Marzena Tomaszewska, Beata Bilska

Period	**Examination**	**Number of ECTS points**
Semester 6	Pass with grade **Activities and hours** Lecture: 15 Project exercises: 45	4

Goals

Code	Goal
C1	The objectives of the course is to provide knowledge and develop of skills in terms of the proper organization a facilities of food service establishments taking into account such aspects like: organizational and functional, hygienic, technical and technological as well as the selection and proper setting of technological equipment. Students also gain the skills in the field of basic design calculations implementation and use of software supporting the design process - AutoCAD program.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	technical standards and norms in technological design.	TN_K1_W04, TN_K1_W05, TN_K1_W06	Project, Test (written or computer based)
W2	rules on methods, techniques, tools and technologies used for the technological design of food service establishments.	TN_K1_W07, TN_K1_W08, TN_K1_W12	Project, Test (written or computer based)
Skills – Student can:			
U1	acquire and analyze information necessary to prepare a technological project of food service establishments.	TN_K1_U04, TN_K1_U06	Project
U2	plan and realize practical activities related to technological and functional design of food service establishments.	TN_K1_U05, TN_K1_U08	Project
Social competences – Student is ready to:			
K1	organize individual or team work when technological designing of food service establishments.	TN_K1_K01, TN_K1_K04	Project

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	The definition of technological design. Types of project. Types of food service establishments. Legal acts related to organization of food service establishments. Design calculation. Technological routes (kitchen flow). The rules for the organization of storage and production area. Food service systems - division, characteristics, rules of organization. Organization of a dishwashing area. The rules for the organization of social area. Principles of design a functional arrangement of food service facilities. Ergonomic aspects of workplace organization in food service facilities. Industry guidelines: architecture, ventilation, water and sewage, lighting, energy balance.	W1, W2	Lecture
2.	Development of design assumptions which are the basement of food service facilities organization. Design calculation related to daily requirement for food raw materials.	U1	Project exercises
3.	Design calculation related to area of food and non-food storage and production, expedition, social area. Development of the functional layout of the food service establishment taking into account technological routes.	U1, U2	Project exercises
4.	To acquaint students with the basic and advanced functions of AutoCAD program.	U2, K1	Project exercises

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, Case study, Presentation
Project exercises	Discussion, Design method, Teamwork

Activities	Examination method	Percentage
Lecture	Test (written or computer based)	50%
Project exercises	Project	50%

Activities	Credit conditions
Lecture	A positive assessment of exam.
Project exercises	A positive assessment of project.

Literature

Obligatory

1. Rochatsch M., Lemme F., Neumann D., Wagner A. (2007): Professional Kitchens: Planning, Design, Equipment, Huss Medien Gmbh, Hamburg.
2. Neufert E. (2019): Architects' Data. 5th Edition, Publisher: Wiley-Blackwell.
3. Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs

Optional

1. Supplementary materials prepared by the lecturer

Calculation of ECTS points

Activity form	Activity hours*
Lecture	15
Project exercises	45
Preparing the project	30
Conducting literature research	10
Preparation for exercises	20

Student workload	**Hours** 120
Number of ECTS points	**ECTS** 4

* hour means 45 minutes

Effects

Code	Content
TN_K1_K01	The graduate is ready to contact and exchange of experiences and knowledge with the experts in order to explore better solutions for particular problems connected to among others: food production, delivery chain, food storage and human nutrition
TN_K1_K04	The graduate is ready to responsible performing of professional roles, in it: compliance with the professional ethics and exploring knowledge related to the profession
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_U05	The graduate can carry out activities in the field of the technological and functional design of food production and mass catering plants, taking into account the marketing strategy and in accordance with the applicable standards of good manufacturing and hygienic practice as well as food quality and safety systems
TN_K1_U06	The graduate can obtain, analyze and synthesize the obtained information and draw conclusions taking into account various conditions related to the aspects of human nutrition, food production, including regional production, food evaluation, consumer protection, intellectual property protection, legal, technological, economic, social, and sociological, cultural, ecological and ethical aspects of food production and consumption as well as quality and safety assurance in the food chain and human nutrition
TN_K1_U08	The graduate can plan, organize and carry out, independently or in a team, simple project tasks related to food production and evaluation, human nutrition, and consumer behaviour
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
TN_K1_W05	The graduate knows and understands basics of construction and operation of machines, devices, and instruments used for food processing and testing
TN_K1_W06	The graduate knows and understands methods and techniques used for food processing, preservation, storage, and testing
TN_K1_W07	The graduate knows and understands principles of good production and hygiene practice as well as systems and standards related to quality and safety assurance of food
TN_K1_W08	The graduate knows and understands rules and organization methods of the production and chain of food supply (planning, production organization, storage, distribution of food and food consumption in collective and individual nutrition) in accordance with the legal requirements of assurance of quality and food safety and the principles of sustainable development
TN_K1_W12	The graduate knows and understands foundations for the creation of enterprises operating in the area of the food economy and the way of management of these enterprises, determining the effectiveness of their activity