SZKOŁA GŁÓWNA GOSPODARSTWA WIEJSKIEGO

Basic of hygiene in food processing

Educational subject description sheet

Basic information

Field of study Biotechnology	**Didactic cycle** 2024/25
Speciality -	**Subject code** BBTBTjS_D.310.01614.24
Organizational unit Faculty of Biology and Biotechnology	**Lecture languages** english
Study level first cycle (engineering degree)	**Mandatory** Elective subjects
Study form full-time studies	**Block** Major subjects
Education profile General academic	**Disciplines** Biological sciences

Coordinator	Małgorzata Ziarno
Teacher	Małgorzata Ziarno

Period	**Examination**	**Number of ECTS points**
Semester 5	Pass with grade **Activities and hours** Lecture: 30	2

Goals

Code	Goal
C1	The aim of the course is to familiarize students with the cleaning and disinfection processes carried out in food production plants, the techniques and methods of controlling of these processes, GHP and GMP requirements for food industry plants, the rights and obligations of employees and plant management in the field of hygiene, and organization of sanitary control in food industry plants and the powers of control inspections.

Entry requirements

Information on general microbiology, biotechnology in the food industry and environmental protection, as well as design and development of technological lines

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	the information on so-called sanitary minimum entitling to work in contact with foodstuffs	BTj_K3_W11, BTj_K3_W15_inz	Written credit
W2	the methods of water treatment and disinfection, the technical, hygienic and sanitary requirements for food industry plants and the current issues of food legislation in the field of production hygiene	BTj_K3_W11, BTj_K3_W15_inz	Written credit
W3	the organization of sanitary supervision over food production in Poland and the European Union	BTj_K3_W11, BTj_K3_W14, BTj_K3_W15_inz	Written credit
Skills – Student can:			
U1	carry out the correct process of cleaning and disinfecting devices, technological lines and packaging, and can select washing and/or disinfecting agents depending on the type of contamination	BTj_K3_U07	Written credit
U2	design an effective cleaning and/or disinfection process and to control them	BTj_K3_U07	Written credit
U3	plan the air purification process in the plant and control its condition	BTj_K3_U07	Written credit
U4	characterize pathogenic microorganisms present in food	BTj_K3_U07	Written credit
Social competences – Student is ready to:			
K1	apply the knowledge and skills into practice	BTj_K3_K03, BTj_K3_K06	Written credit

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	Cleaning and disinfection processes. Cleaning and disinfecting agents. Obligations of employees and employers in the field of production hygiene, an exemplary hygiene plan, disinfestation, deratization, effectiveness control of cleaning and disinfection, cleaning and disinfection of packaging. Air and water cleanliness in plants. Technical, hygienic and sanitary requirements for plants. Production hygiene legislation. Organization of sanitary supervision over food production: pathogenic microorganisms in food.	W1, W2, W3, U1, U2, U3, U4, K1	Lecture

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, E-learning - lecture part, Presentation, Analysis of source materials, Display

Activities	Examination method	Percentage
Lecture	Written credit	100%

Activities	Credit conditions
Lecture	obtaining at least 51% of points for each learning outcome

Literature

Obligatory

1. H.L.M. Lelieveld, M.A. Mostert, J. Holah, B. White (Eds.). Hygiene in food processing. CRC Press 2003
2. Applicable legal acts: http://isip.sejm.gov.pl/prawo.nsf/, https://eur-lex.europa.eu/homepage.html
3. Applicable legal acts: https://eur-lex.europa.eu/homepage.html?locale=en

Optional

1. Trade journals
2. https://www.fao.org/3/a1552e/a1552e00.pdf
3. Hygiene in Food Processing. Principles and Practice (PDF) H.L.M. Lelieveld, J. Holah and D. Napper (Eds.) 2014
4. Melo, L.F., Bott, T.R., Fletcher, M., Capdeville, B. (eds) Biofilms — Science and Technology. NATO ASI Series, vol 223
5. Food Hygiene, Microbiology and HACCP. S. Forsythe, Springer 2013

Calculation of ECTS points

Activity form	Activity hours*
Lecture	30
Preparation for the test	20
Student workload	**Hours** 50
Number of ECTS points	**ECTS** 2

* hour means 45 minutes

Effects

Code	Content
BTj_K3_K03	The graduate is ready to for safe work via the selection and application of a proper technique of handling, storing and disposing of laboratory materials (e.g. using proper techniques in terms of handling, storing and disposing of bacteria, chemical substances and dangerous bio-waste);
BTj_K3_K06	The graduate is ready to presenting justified arguments supporting one’s standpoint regarding scientific, ethical and social topics influencing the progress in biological sciences;
BTj_K3_U07	The graduate can follow proper principles of safety and work ethics during the execution of scientific research using various experimental methods under laboratory and field conditions
BTj_K3_W11	The graduate knows and understands the principles of OHS and ergonomics;
BTj_K3_W14	The graduate knows and understands the significance of copyright protection, the protection of industrial property and patent right;
BTj_K3_W15_inz	The graduate knows and understands the systems currently recommended for managing quality and safety in the biotechnological industry; the principles of creating and developing the forms of individual entrepreneurship;