Module syllabus: ***Microbiology of food and physiology of nutrition***

1. Overall information

Module coordinator	dr Katarzyna Kasperkiewicz
Contact	katarzyna.kasperkiewicz@us.edu.pl; +48 32 2009 359
ECTS	**4**
Method for the verification of learning outcomes	The final grade for the module is the average of the grades obtained in the Department of Microbiology and the Department of Animal Physiology & Ecotoxicology. In each of the departments, the grade is the weighted average of the following student activities: - Continuous evaluation of practical skills (0.3) - Reports (0.4) - Presentation (0.3) To be awarded a final grade, the student must pass each activity of the module. Grades: below 51% – fail (F); 52-60% – with minimum academic criteria (E); 61-65% – satisfactory (D); 66-75% – good (C); 76-85% – very good (B), ≥ 85% – excellent (A)

2. Description of student activity and work

Lecture/discussion sessions	
Responsible instructor	-
Content	-
Number of didactic hours (contact hours)	-
Literature	-

Laboratory	
Responsible instructors	Staff of the Department of Animal Physiology & Ecotoxicology and the Department of Microbiology (Coordinator: dr Katarzyna Kasperkiewicz)
Laboratory projects	Laboratory project in the Department of Microbiology: 1. Isolating and enumerating the microorganisms in meat and meat products 2. Isolating and enumerating the microorganisms in milk and milk products 3. Presenting the results of the API® tests used in food microbiology 4. Preparing reports based on the results obtained and interpreting the food standards

	of the Polish Committee for Standardisation 5. Preparing a multimedia presentation on the topic selected by the student. Laboratory project in the Department of Animal Physiology & Ecotoxicology 1. Principles of the physiology of nutrition, indices of the nutritional status – basic calculations presented as a short report. 2. The integration between protein, carbohydrate and lipid metabolism in the human body. Simulation using the QCP program. 3. Chemical Score, Glycemic Index and Glycemic Load – a practical approach. 4. Presentations on topics that cover contemporary evidence-based dietetics selected by students from the offered list.
Methodology of laboratory classes	Working under the supervision of the lecturer in small groups to perform the experiments and calculations, to discuss and document their observations and to interpret the results. Student's presentation and discussion.
Number of didactic hours (contact hours)	20
Literature	Modern Food Microbiology. James M. Jay, J.M. Loessner, MJ. Golden 2005. Aspen Publication Food Microbiology ed. M.R. Adams. M.O. Ross 2008. RSC Publishing Nutrition Essentials and Diet Therapy. Nancy J. Peckenpaugh 2010, Elsevier Crash Course Metabolism and Nutrition. Ming Yeong Lim & Jason O'Neale Roach 2007 Elsevier Human Physiology/Nutrition. (2016, September 26). *Wikibooks, The Free Textbook Project*. Retrieved 20:33, November 24, 2016 from https://en.wikibooks.org/w/index.php?title=Human_Physiology/Nutrition&oldid=3128186.

3. Forms of verification

Continuous evaluation of knowledge, activity and practical skills	
Grades	Grades are awarded on a scale of A -F, where A is the best and F is a fail. An excellent performance (A) – the student actively participates in the laboratory work, demonstrates an excellent understanding of the experimental procedures (their aims, sequence and outcomes), is engaged and creative in solving current problems and in assessing and presenting the experimental results. A good performance (C) – the student demonstrates good judgment and knowledge, correctly performs an experiment, understands the experimental procedure, properly assesses and presents the experimental results. A satisfactory performance (E) – the student demonstrates satisfactory judgment and knowledge, is poorly engaged and needs additional help to finish the experiment and final assessment of the experimental results correctly, provides a satisfactory presentation of the experimental results. A performance that does not meet the minimum academic criteria (F) – the student is not engaged in the experiment, does not understand the experimental procedures, poorly interprets and presents the experimental results.

Reports from realised laboratory projects

Evaluation	The grading of the reports includes: properly performed experiments, appropriate calculations, assessing and presenting the experimental results, well-drawn conclusions, use of reference materials. Grades for reports are awarded on a scale of A-F, where A is the best and F is a fail. An excellent report (A) – without any essential errors Fail (F) – no report

Presentation	
Grades	Preparation of a short oral presentation on a topic selected by the student in the field of food microbiology and the physiology of nutrition Grades are awarded on a scale of A-F, where A is the highest and F is a fail.