

Courses for Erasmus students – SPRING SEMESTER

Faculty of Food Sciences, University of Warmia and Mazury in Olsztyn

| No. | Title of the course | Subject code | ECTS credits | Contact person | Contact person email |
|------------|---|---------------------|---------------------|--|-------------------------------|
| 1 | Enzymology, Bioinformatics and Bioprocesses | 1703S2-EBB | 5 | Prof. dr hab. Małgorzata Darewicz | darewicz@uwm.edu.pl |
| 2 | Food Quality Analysis and Assessment | 1703S1-AOJZ | 4.5 | Dr inż. Joanna Maria Klepacka | klepak@uwm.edu.pl |
| 3 | Hygiene of Production and Food Toxicology | 1703S1-HPITZ | 5 | Dr inż. Renata Pietrzak-Fiećko | renap@uwm.edu.pl |
| 4 | Food Microbiology | 1703S1-MIKZ | 6 | Dr inż. Bartłomiej Dziuba | bartlomiej.dziuba@uwm.edu.pl |
| 5 | Processing of Cereals | 1703S1-PRZZB | 6 | Prof. dr hab. inż. Katarzyna Majewska | katarzyna.majewska@uwm.edu.pl |
| 6 | Food Quality and Food Safety Management Systems | 1719S1-SZJ | 5 | Dr inż. Waldemar Dzwolak | waldekdz@uwm.edu.pl |
| 7 | Technology of Butter and High-fat Products | 1703S1-TMIPW | 6 | Dr inż. Maria Baranowska | maria.baranowska@uwm.edu.pl |
| 8 | Food Technology-Meat and Meat Products | 1727S1-TZTPM | 2.5 | Dr hab. inż. Monika Modzelewska-Kapituła | monika.modzelewska@uwm.edu.pl |
| 9 | Commodity of Industrial Products | 1719S1-TAPRZ | 4 | Dr inż. Katarzyna Tkacz | ktkacz@uwm.edu.pl |
| 10 | Food Marketing and Production Economics | 1703S2-FMPE | 2 | Dr inż. Katarzyna Staniewska | kasta@uwm.edu.pl |

ENZYMOLGY, BIOINFORMATICS AND BIOPROCESSES

Contact persons - lectures:

Prof. dr hab. Małgorzata Darewicz, e-mail: darewicz@uwm.edu.pl; Dr hab. Anna Iwaniak, prof. UWM, e-mail: ami@uwm.edu.pl; Prof. dr hab. Piotr Minkiewicz, e-mail: minkiew@uwm.edu.pl

Contact persons - classes:

dr hab. Anna Iwaniak, prof. UWM, e-mail: ami@uwm.edu.pl; prof. dr hab. Piotr Minkiewicz, e-mail: minkiew@uwm.edu.pl; dr inż. Justyna Borawska-Dziadkiewicz, e-mail: justyna.borawska@uwm.edu.pl; dr inż. Justyna Bucholska, e-mail: justyna.bucholska@uwm.edu.pl; mgr inż. Damir Mogut, e-mail: damir.mogut@uwm.edu.pl.

Semester:

Spring

ECTS: 5

Course description:

Determination of α -amylase activity by colorimetric method – analysis of effect temperature, activators and inhibitors on enzyme activity; determination of pepsin and papain activity used for milk proteins hydrolysis by titration method; structure-based database search for retrieval information concerning low-molecular compounds from Internet databases; application of computer databases to find and design of enzymatic processes involving compound; the sources of information available in selected databases of peptides- application computer tools to simulate the hydrolysis of proteins in the context of biopeptides' production; prediction of physicochemical properties of biologically active compounds

FOOD QUALITY ANALYSIS AND ASSESSMENT

Contact person (lectures):

Dr inż. Joanna Maria Klepacka, email: klepak@uwm.edu.pl

Contact person (classes):

Dr inż. Joanna Maria Klepacka, email: klepak@uwm.edu.pl

Semester:

Spring

ECTS: 4.5

Course description:

The characteristics of the analytical procedures used in the determination of the basic components of raw materials and foodstuffs: theoretical basis and the course of some analytical procedures, and methods of results interpretation. Principles of water content, density, acidity, amounts of saccharides, lipids (determination of their quantity and freshness), proteins, selected minerals and vitamins determination. Carrying out the entire analytical procedure for determination of sugars, fat, and protein content in food products using different analytical methods. The principles of selecting an analytical method and determining its accuracy, sensitivity and precision.

HYGIENE OF PRODUCTION AND FOOD TOXICOLOGY

Contact person lectures:

Dr inż. Renata Pietrzak-Fiećko; email: renap@uwm.edu.pl

Contact person classes:

Dr inż. Renata Pietrzak-Fiećko; email: renap@uwm.edu.pl

Semester:

Spring

ECTS: 5

Course description:

Acquisition of knowledge about hygiene of production of selected food products and about food toxicology. Threat of food production caused by chemical residues from the environment and use some chemical additives during food production.

- The knowledge about the types of food contaminants, coming from the environment. Understanding the ways of solving the problems of the situation by offering organic farming.
- The characteristics of the chemical compounds intentionally added during food production. The discussion about the problems of the use of the chemical food additives and their health consequences.
- The content of anti-nutritional and naturally present toxic compounds of food of animal and vegetable origin. The problems associated with the presence of anti-nutritional substances in food products and their mechanisms of action. The detection of dissolvable oxalates in coffee and tea.
- The presence of heavy metals in raw materials and food. The discussion about their sources and toxicity.
- Chemical residues' impact on the selected enzymatic reactions and the consequences of the pesticide residues in raw materials and food.
- Hygienic assessment of plastics and their toxicity. The discussion about the possible migration of the plastics' constituents to food products.

FOOD MICROBIOLOGY

Contact person lectures:

dr inż. Bartłomiej Dziuba, email: bartlomiej.dziuba@uwm.edu.pl

Contact person classes:

dr inż. Bartłomiej Dziuba, email: bartlomiej.dziuba@uwm.edu.pl

dr inż. Wioleta Chajęcka-Wierzchowska, email: wioleta.chajECKa@uwm.edu.pl

Semester: Spring

ECTS: 6

Course description:

Sterilization and disinfection. Construction of microscope and microscopy method. Prokaryotic cell morphology. Morphology of eukaryotic cells. Microbiological media and microbial culture methods. Quantitative methods in microbiological food testing. Sampling for testing. Determination of numbers, NPLs and the occurrence of microorganisms present in food. Food safety criteria and process hygiene criteria. Seminars.

PROCESSING OF CEREALS

Contact person lectures:

Prof. dr hab. inż. Katarzyna Majewska, email: katarzyna.majewska@uwm.edu.pl

Contact person classes:

Prof. dr hab. inż. Katarzyna Majewska, email: katarzyna.majewska@uwm.edu.pl

Dr hab. inż. Iwona Konopka, prof. UWM, email: iwona.konopka@uwm.edu.pl

Dr inż. Małgorzata Tańska, email: m.tanska@uwm.uwm.edu.pl

Semester:

Spring

ECTS: 6

Course description:

Characteristics of particular cereal species, its meaning in economy, directions of utilization (in: food industry; another branches of industry; husbandry). Technology of grains milling. Technology of baking. Pasta-making process. Technology of breakfast cereals - expansion and extrusion processes. Recent trends and technology developments in cereals processing. Quality evaluation of chosen cereal products. Laboratory milling of wheat and rye grains with quality evaluation of obtained flours. Laboratory baking trials with quality evaluation of obtained breads. Extrusion of cereals with the use of single screw extruder. Quality evaluation of obtained extrudates. Baking competitions. Seminar classes.

FOOD QUALITY AND FOOD SAFETY MANAGEMENT SYSTEMS

Contact person lectures:

Dr inż. Waldemar Dzwolak, email: waldekdz@uwm.edu.pl

Contact person classes:

Dr inż. Waldemar Dzwolak, email: waldekdz@uwm.edu.pl

Semester:

Spring

ECTS: 5

Course description:

Fundamentals of food quality and food FOOD safety management systems. Terms and definitions. Food safety hazards – classification, characterization and control measures. Basics of food defence and food allergen control. Selected EU food law regulations. Prerequisite programs and operational prerequisites programs. Developing of HACCP plan and food defence plan. Document control in management systems. Procedures, specifications, codes and programs. Traceability in the food chain. Flexibility areas during implementation of the HACCP principles and PRPs/OPRPs. Salford Model in catering and retailing. Characterization of BRC, IFS, ISO 22000 and ISO 9001 standards and FSSC 22000 certification scheme. Internal audit and management review. Performance indicators and management by objectives. Tools and methods applicable for continual improvement of food quality and food safety management systems.

TECHNOLOGY OF BUTTER AND HIGH-FAT PRODUCTS

Contact person lectures:

dr inż. Maria Baranowska, email: maria.baranowska@uwm.edu.pl,

Contact person classes:

dr inż. Maria Baranowska, email: maria.baranowska@uwm.edu.pl

Semester:

Spring

ECTS: 6

Course description:

The aims are an acquisition of knowledge and skills in technology of butter and high milk fat products. Characteristic of the butter types – definitions, compositions, sensory and nutrition value. Characteristic the methods of butter production. Preliminary stages of the butter production. Steps of butter manufacturing processes. Periodical production of butter. Alternative buttermaking methods. Production of dairy spreads. Continuous production of butter. Analysis of cream and butter. Acquisition of knowledge and skills in area of physicochemical and sensory evaluation of cream, butter and dairy spreads. Butter defects and their causes.

FOOD TECHNOLOGY – MEAT AND MEAT PRODUCTS

Contact person lectures:

Dr hab. inż. Monika Modzelewska-Kapituła, email: monika.modzelewska@uwm.edu.pl

Contact person classes:

Dr hab. inż. Monika Modzelewska-Kapituła, email: monika.modzelewska@uwm.edu.pl

Semester: Spring

ECTS: 2.5

Course description:

The production, global consumption and characterization of the most common meat types (pork, poultry, beef). Meat and meat products – definitions according to European Union law. The structure, chemical composition, technology properties and nutritional value of meat. Basis of meat processing - processes and materials used in sausage, ham, pate and canned meat production (curing, salting, chopping, comminuting, mixing, tumbling, stuffing, heat treatment). Additives used in meat technology.

COMMODITY OF INDUSTRIAL PRODUCTS

Contact person lectures:

Dr inż. Katarzyna Tkacz, email: ktkacz@uwm.edu.pl

Contact person classes:

Dr inż. Katarzyna Tkacz, email: ktkacz@uwm.edu.pl

Semester:

Spring

ECTS: 4

Course description:

Issues related to the commodity - its usable and exchangeable value and methods of quality evaluation. Characteristics and commodity evaluation of selected groups of industrial products (cosmetics, ceramic and glassware, household articles) - raw materials used for their production, manufacturing operations, storage. Analysis of the utility features of the chosen industrial product together with preparation of the powerpoint, presentation and the discussion. Field activities - production and quality assessment of glass products.

FOOD MARKETING AND PRODUCTION ECONOMICS

Contact person lectures:

Dr inż. Katarzyna Staniewska, email: kasta@uwm.edu.pl

Contact person classes:

Dr inż. Katarzyna Staniewska, email: kasta@uwm.edu.pl

Semester:

Spring

ECTS: 2

Course description:

To present the basic concepts of food marketing and food production economics. To educate about importance of the ethics and law in activities related to food production and its promotion, Presentation of the basic elements of the competitiveness of food enterprises (companies). Developing skills connected with recognition and analysis of basic trends in the food business environment and skills connected with using this knowledge in the design and implementation of innovation.