

Course code:

Plan position:

A. INFORMATION ABOUT THE COURSE

B. Basic information

Name of course	<i>Food product development</i>
Field of studies	Food technology and human nutrition
Level of studies	First degree
Profile of studies	Practical profile
Form of studies	Stationary
Specialty	1. Food engineering 2. Human nutrition and dietetics elements
Unit responsible for the field of studies	Faculty of Chemical Technology and Engineering
Name and academic degree of teacher(s)	Joanna Szulc, PhD; Wojciech Poćwiardowski, PhD; Grażyna Gozdecka, Prof.
Introductory courses	Not needed
Introductory requirements	basic knowledge of food technology and processing

C. Semester/week schedule of classes

Semester	Lectures (W)	Auditorium classes (Ć)	Laboratory classes (L)	Project classes (P)	Seminar (S)	Field classes (T)	Number of ECTS points
summer	15			30			5

2. LEARNING OUTCOME

No.	Learning outcomes description	The reference to the learning outcomes of specific field of study	The reference to the learning outcomes for the area
KNOWLEDGE			
W1	Has basic economic, legal and social knowledge concerning e.g. product life cycle, product strategy and company development, the possibility of developing and using inventions and patents, the role of the consumer in the process of developing new products.	K_W02	P6S_WK
SKILLS			
U1	Is able to define the assumptions for the development of a new product by defining e.g. the purpose and requirements for the new product, and on the basis of the available literature, it proposes a manufacturing technology and selection of materials, and sets requirements for the product's packaging.	K_U03 K_U13	P6S_UW P6S_UK P6S_UO P6S_UU

U2	As a team member, he designs food product based on guidelines, and can also make a critical evaluation of his actions.	K_U12	P6S_UW P6S_UK P6S_UO P6S_UU
U3	Can use norms, engineering standards, patent information resources, has basic knowledge in the field of technology transfer.	K_U15	P6S_UW P6S_UK P6S_UO P6S_UU
U4	Works individually and as a team member, taking on various roles and managing time.	K_U17	P6S_UK P6S_UO
SOCIAL COMPETENCES			
K1	Is open to changes and aware of the importance of adapting to the changing economic environment and labor market.	K_K02	P6S_KK P6S_KO P6S_KR
K2	Understands the need for training and orientation in the profession.	K_K07	P6S_KK P6S_KO P6S_KR
K3	Is aware of the responsibility for jointly performed tasks related to teamwork.	K_K08	P6S_KK P6S_KO P6S_KR

3. TEACHING METHODS

A. Traditional methods used

Multimedia lectures. Laboratories performed by students under supervision of academic staff.

4. METHODS OF EXAMINATION

Lectures - colloquium, classes- submit project.

5. SCOPE

Lectures	The role of specialists in a modern food industry enterprise, product brand, increasing its value, brand functions, development of new products, tasks of the research department, use of marketing information, assumptions of research and development projects, models of cooperation between the enterprise, marketing and research and development institution, product strategy, classification of products due to marketing activities, link between product strategy and company development, strategy selection rules, action depending on the stage of the product life cycle, directions of development of new food products, categories of new products, sources of ideas for new products, stages of development and introduction to the market of new products, pricing strategy, pricing methods, food distribution as an element of marketing, promotion methods and tools, shaping the quality of new products.
Project classes	Development of a new food product containing individual stages of designing. Use of methodology Design Thinking - a non-linear, iterative process that let designer to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. This methodology involve five phases—Empathize, Define, Ideate, Prototype and Test.

6. METHODS OF VERIFICATION OF LEARNING OUTCOMES

LEARNING OUTCOME	Form of assessment					
	Oral examination	Written exam	Colloquium	Project	Presentation	Reports
W1			x	x		
U1			x	x		
U2			x	x		
U3			x	x		
U4				x		
K1				x		
K2				x		
K3				x		

7. LITERATURE

Basic literature	<ol style="list-style-type: none"> 1. K. Gilbert, K. Prusa. Food product development. Ames, IA: Iowa State University Digital Press. DOI: https://doi.org/10.31274/isudp.2021.66, 2021. 2. H. R. Moskowitz, I. S. Saguy, T. Straus (eds.). New Food Product Development. CRC Press, 2009. 3. M. Earle, R. Earle, A. Anderson. Food Product Development: Maximising Success. Elsevier Science & Technology, 2001.
Supplementary literature	<ol style="list-style-type: none"> 1. Y. H. Hui (ed.). Handbook of Food Products Manufacturing. John Wiley & Sons, Inc. 2007.

8. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity		Student workload— number of hours
Classes conducted under a direct supervision of an academic teacher or other persons responsible for classes	Participation in classes indicated in point 1B	45
	Supervision hours	20
Student's own work	Preparation for classes	10
	Reading assignments	25
	Other (preparation for exams, tests, carrying out a project etc)	30
Total student workload		130
Number of ECTS points		5