

**National Technical University “Kharkiv Polytechnic Institute”**  
**Faculty of Organic substances technology**  
**The Department of Technology**  
**of Fats and Fermentation Products**



# Knowledge Area 18 «Production and Technology»

## Occupation 181 «Food Technology»

### Specializations:



*Technologies of fats, fat substitutes and essential oils*



*Technologies of fermentation and winemaking products*

### Graduate programs:

*Bachelor of Science in Food Technology*

*Master of Science in Food technology*

*Ph.D. in Food technology*



## Areas of studying:

*The theory of technological processes and principles of hardware devices for the processing of agricultural raw materials with the view of a deep understanding of technology*

*Learning processes: purification, heat treatment, concentration, extraction of components, fractionation modification (deep processing) dispersing, emulsifying, preserving and storing foods.*





## Areas of studying:



*Basics of food production and technical use of natural raw products and synthetic components:*

*- fats and oils emulsion of water and fat products, confectionery products, ethyl alcohol, alcoholic and soft drinks, meat, dairy and grain products;*

*- perfumes - cosmetic products, alternative motor fuels, lubricating oils and greases based on renewable raw materials, soaps and other surfactants.*





## Areas of studying:



*Basics of innovative scientific and technological activities:*

*Development of new and improvement of traditional technologies  
by means of theoretical and experimental studies.*

*Information and communication informational technologies  
in the industry.*





## Areas of studying:



*Technical-chemical and microbiological quality control of raw materials, semi-finished and finished product:*

- organoleptic and physico-chemical analysis, determination of functional and consumer properties;*
- device principles and operation of specialized laboratory equipment and measuring instruments;*





## *Areas of studying:*



*Design and modernization of production facilities  
(production areas).*

*The use of information and management software for  
designing processes using modern automated systems.  
Development of design and normative documentation*

*Carrying out of technical and economic calculations.  
Organization of the process, the basic concepts of  
economics and logistics solutions for applications.*



# Employment perspectives:

*The enterprises of food, chemical, perfume and cosmetic industry .*

*Enterprises processing agricultural products: oil-pressing, oil extraction plants, fat plants and other enterprises of oil and fat complex .*

*Breweries and small breweries, alcohol, alcoholic beverage, wineries and other enterprises fermentation industry.*





## **Employment perspectives:**

*Scientific departments and laboratories for food technologies, essential oils and perfumery-cosmetic products*

*Companies and departments which design equipment for the food industry*

*Commercial firms and certification laboratory determination of food quality*

*Trading houses for the food sales*



# **General academic disciplines for the students of our department (Bachelor degree )**



*General food technology*

*Fundamentals of physiology and nutrition*

*Methods of quality control of food products*

*Scientific and practical bases of fats and fat substitutes technologies*

*Scientific basis of fermentation technology*

*Water and water treatment technology of food production*

*Fundamentals of health improvement products*

*Technology of the industry*

*Process calculations, accounting and reporting in the field*



## **General academic disciplines for the students of our department (Master of Science degree)**

*Actual problems and prospects of development of fats production technology*

*Topical issues of alcohol and alcoholic beverages technology*

*Environmental impact assessment of food production*

*Topical issues of brewing*

*Food surfactants technology*

*Engineering design technology*

*Modern technologies of wine and brandy*

*Technology of secondary products processing*



# Laboratory Practice Base



*The students perform in labs educational and research works*

*For this purpose, the laboratories of the Department and its branch in the Ukrainian Scientific-Research Institute of oils and fats of the National Academy of Agrarian Sciences are being used*

*Laboratories are equipped with modern equipment that allows to control the synthesis processes, material handling and determination of the composition, the structure of the final products.*

*Including chromatographs, spectrophotometers, special tools for assessing the properties of substances and a wide range of accessories*

# **Profesorsko teaching staff**

**Fyodor Gladkiy - *Head of the department, Doctor of Technical Sciences, Professor***

***Doctor of Technical Sciences, Professor:***  
Demidov Igor, Nekrasov Pavel

***Candidate of Engineering Sciences, Professor:***  
Perevalov Leonid, Timchenko Valentina, Chumak Olga, Piven Elena

***Candidate of Engineering Sciences, Assistant Professor:***  
Berezka Tetiana, Matyukhov Dmitry, Litvinenko Elena,  
Anastasia Demidova Arutiunian Tatiana

***Candidate of Engineering Sciences, Assistant:***  
Molchenko Svetlana, Averina Elena

# Our contacts:

**Kharkov, Ukraine  
Kyrpychova str. 2**

**National Technical University «Kharkiv Polytechnic Institute»  
Technical bulding, 2 floor,**

**Contact numbers (+38066) 847-90-93  
(+38057) 707-63-64  
(+38057) 707-63-29**

**e-mail: [1930tg@gmail.com](mailto:1930tg@gmail.com)**

