

TRAINING PROGRAM IN DISCIPLINE: Nutrition and Food Technology

1. Basic information

Domain: Agricultural Sciences

Discipline: Nutrition and Food Technology

Degree awarded: PhD in Nutrition and Food Technology

2. Training demand

The doctoral training in nutrition and food technology at Lodz University of Technology has a mission to multiply and disseminate knowledge, aiming at educating highly qualified staff for the needs of the economy and administration. The primary goal is to educate graduates with interdisciplinary knowledge who can use it in both research and practice. Another goal is to teach graduates the ability to present and publish results of their research and to defend their research theories. Graduates after obtaining the doctoral degree in agricultural sciences in the discipline of food and nutrition technology, due to the interdisciplinary nature and multi-directional education program have extensive knowledge related not only to the basic discipline, but also broadly understood biotechnology and chemical engineering.

3. Detailed entry requirements

A formal requirement for candidates is the completion of master's studies in nutrition and food technology or chemical engineering or other related fields. In addition, candidates should demonstrate the ability to work independently, the ability to acquire and apply knowledge in various fields, as well as demonstrate predispositions for objective analysis and evaluation of collected observations and research results.

4. Teaching methods

Lectures, classes, laboratories, projects, scientific seminars

5. Graduate's profile

Graduates know and understand scientific world and creative achievements and practical implications resulting from them. They are able to analyze and creatively synthesize scientific and creative achievements in order to identify and solve research problems and issues related to innovative and creative activities as well as to contribute to these achievements. Graduates can consciously and independently plan their development and inspire the development of other people and participate in the exchange of experiences and ideas in the national and international environment. They are ready to undertake independent studies enlarging the existing scientific and creative achievements, taking up challenges in the professional and public sphere, taking into account their ethical dimension and

responsibility for their effects and shaping patterns of proper behavior in such situations. Graduates will find employment at domestic and foreign universities as well as in research and development centers as researchers and scientists. They will be highly qualified staff of modern enterprises that implement production processes using waste-free innovative technologies in areas such as biotechnology, agriculture and food, cosmetics and pharmaceutical industries. They can also modify, evaluate and consult new technological and product solutions in terms of their efficiency, profitability and innovativeness – also in the wider context of a sustainable and low-carbon circular economy.

6. Training plan

First year (Semester 1 and 2)		
No.	Subcategory	Subject
1	E	Entrepreneurship
2	CC1	Modern trends in food technology I
3	CC2	Phytochemicals as bioactive food ingredients
4	CC3	The role of phytochemicals in the prevention of civilization diseases
5	CC4	Advances in fermented food and beverages I
Second year (Semester 3 and 4)		
No.	Subcategory	Subject
1	CC5	Modern trends in food technology II
2	CC6	Biocatalysis
3	CC7	Modern microbiological analysis in food industry
4	CC8	Advances in fermented food and beverages II