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BRANCH MICROBIOLOGY

**MICROBIOLOGY
IN THE CATERING SERVICES**



MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
ODESA NATIONAL ACADEMY OF FOOD TECHNOLOGY

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Tutorial

Translated from Ukrainian by K. V. Yeryganov

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This tutorial was made according to the current curriculum and working program of the discipline "Branch microbiology" which is one of the basic ones for specialized training of bachelors in the science branch 18 "Industry and Technology", speciality 181 "Food Technology", training program "Microbiology in the Catering Services".

The tutorial's material is aimed for the students to acquire knowledge and practical skills in such an important area of food quality management in the catering services as the microbiological safety parameters and sanitary-bacteriological control of the manufacture.

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Preface

"Branch microbiology – Microbiology in the catering services" is one of the core disciplines for bachelors in science branch 18 "Industry and technology", speciality 181 "Food technology" training program "Microbiology in the catering services", because knowledge of it is the base for providing microbiological stability of food products, preventing foodborne infections and poisonings in the consumers, maintaining the epidemiological safety and quality of food. Microbiological indexes are criterial and basic in determination of quality and safety of food products according to a complex of indexes (organoleptic, physical and chemical, biochemical etc.).

The main goal of the whole course and particularly of laboratory works is mastering the theory and practice that are enough to form competences required to provide microbiological control in the food industry.

This tutorial includes two parts: theory and experiments. In the first part, the students further their theoretical knowledge of special microbiology. Much attention is paid to the conventional methods of microbiological analysis and to characterization and value of each index of microbiological safety of food, including sanitary-indicative microorganisms and prevention of human infections. Also, the causative agents of foodborne infectious diseases are described. In the second part, the students are introduced to organization of microbiological and sanitary-hygienic control at food manufactures, which will allow them to study the microbiological base of the corresponding food branch deeper.

The discipline's course includes one module. The module contains 1,5 credits which, in turn, include lectures, laboratory works and the students' independent work. Studying of the disciplines consists of mastering lecture material, some sections not covered by lectures and laboratory works, while the level of mastering the knowledge is controlled by writing the module control tests.

This tutorial was made based on the current SSTU (State Standards of Ukraine), guides and other official documents that regulate the procedure and methods of microbiological and sanitary-technological control in catering services, but some immaterial deviations from them were made in order to simplify the work for the students.

The goal of publishing this tutorial is to help students to master the methods of microbiological control and to study the theoretical aspects of these methods.

The list of reference used in preparing this tutorial and that can be recommended for independent further studying of some topics of the discipline is given at the end of the tutorial.

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