Sarajevo School of
Science and Technology

MASTER STUDIES

NUTRITION

CONTENTS

Assoc. Prof. **Rasim JUSUFOVIĆ,** MD PhD
Dean Sarajevo Medical School - University SSST

Sarajevo Medical School at SSST University was established in the 2014/2015 academic year as the first private medical school in the region. From its inception, the School has been equipped with state-of-the-art laboratories, advanced digital learning platforms, and a strong emphasis on engaging experienced practitioners in the teaching process. This combination has enabled us to rapidly achieve a high level of competitiveness and recognition.

As one of the fastest-growing units within the University, and in response to evolving healthcare and market needs, Sarajevo Medical School has expanded its academic portfolio to include programmes in dentistry, pharmacy, and health studies.
Our students undertake clinical training and internships in leading public healthcare institutions across Bosnia and Herzegovina, as well as in reputable private clinics. The curricula are aligned with global trends in medicine, dentistry and pharmacy, ensuring that our programmes remain comparable with those offered by leading European medical schools.

A distinctive feature of our undergraduate programmes is their alignment with international standards, enabling students to prepare for and sit the United States Medical Licensing Examination (USMLE). This provides significant added value, opening pathways for international clinical training and career opportunities worldwide.

In addition to undergraduate education, the School offers doctoral (PhD) programmes in Clinical Medical Sciences and Biomedicine and number of Master of Sicence (MSc) programes which further strengthen its academic and research capacity.

Responding to the increasing global focus on preventive healthcare, lifestyle-related diseases, and the critical role of nutrition in maintaining health and managing illness, Sarajevo Medical School has launched Master Studies in Nutrition.

This programme is designed to equip graduates with advanced scientific, clinical, and practical competencies required to assess nutritional needs, develop evidence-based dietary interventions, and promote health and well-being in both individual and population settings.

Prof. **Semira Galijašević**, PhD
Program coordinator

The development of this Master Studies in Nutrition and Dietetics is rooted in extensive professional and academic experience in clinical nutrition, preventive medicine, and public health, combined with a longstanding commitment to advancing education in this rapidly evolving field. The programme was conceived to provide a comprehensive understanding of the scientific principles of human nutrition, with particular emphasis on evidence-based dietary practice, nutritional assessment, and the role of nutrition in health promotion and disease prevention.

Continuous engagement with healthcare professionals, nutrition experts, educators, and public health stakeholders, alongside practical experience in addressing nutrition-related health challenges, has highlighted the critical need for formally trained experts in nutrition and dietetics. These combined experiences and insights have directly informed the creation of this programme, which aims to equip future professionals with the knowledge and skills necessary to improve individual and population health through scientifically grounded nutritional interventions and effective dietary strategies.

Prof. **Jasminka Ilich-Ernst**, PhD, MS, RDN, FACN
Professor of Nutrition

The Master Studies in Nutrition and Dietetics has been developed as a reflection of the growing scientific recognition that nutrition is one of the fundamental determinants of human health and disease. Drawing upon advances in biochemistry, physiology, molecular biology, genetics, and clinical research, the programme is designed to provide a rigorous understanding of the mechanisms through which nutrients influence metabolic pathways, cellular function, and overall health outcomes.

Recent developments in nutritional sciencehave transformed the field into a highly sophisticated discipline that integrates basic biomedical sciences with clinical and public health applications. These scientific advances have underscored the need for experts who are able to critically interpret emerging evidence and translate complex biological knowledge into effective nutritional strategies.

This programme was created to equip future professionals with a strong scientific foundation and advanced analytical skills necessary to understand the biological basis of nutrition, evaluate contemporary research, and contribute to the development of evidence-based approaches to disease prevention, health promotion, and personalized nutritional care.

Amina Šeta, MD PhD
Medical expert in field of nutritionism

Daily clinical practice provides a unique perspective on the central role of nutrition in the prevention and management of chronic diseases. In patients with diabetes, obesity, metabolic syndrome, cardiovascular disease, and other endocrine disorders, appropriate nutritional strategies are often as important as pharmacological treatment. Effective dietary interventions can significantly improve metabolic control, reduce complications, and enhance overall quality of life.

Years of direct work with patients have demonstrated that successful medical care requires a thorough understanding of both the scientific principles of nutrition and their practical application in individualized treatment plans.

This Master Studies in Nutrition has been designed to equip future professionals with the advanced knowledge and practical competencies needed to integrate evidence-based nutrition into everyday clinical practice. By combining scientific rigor with real-world application, the programme prepares graduates to play a key role in disease prevention, therapeutic nutrition, and the promotion of long-term health.

Faculty members

Teaching is delivered by distinguished academic staff, experienced clinicians, nutrition scientists, and invited experts from Bosnia and Herzegovina and abroad.

Prof. Jasminka Ilich-Ernst, MD PhD

Prof. Semira Galijašević, PhD

Prof. Lilijana Oruč, MD PhD

Prof. Asja Prohić, MD PhD

Amina Šeta, MD PhD

Assist. Prof. Selma Jusufović, MD PhD

Assist. Prof. Behija Berberović, MD PhD

Nutritionism and dietetics – beginnings and future trends

The Master Studies in Nutrition and Dietetics has been developed in recognition of the profound scientific evolution of nutrition from a discipline initially focused on the identification of essential nutrients and the prevention of deficiency diseases to one of the most dynamic and rapidly advancing fields within contemporary biomedical science. Early milestones in nutritional science, including the discovery of vitamins, minerals, and the physiological roles of proteins, carbohydrates, and fats, established the foundations for understanding how nutrition sustains growth, development, and the maintenance of normal biological function. These discoveries transformed medicine by demonstrating that diet is not merely a source of energy, but a critical determinant of human health and disease.

Over the past several decades, nutrition science has expanded far beyond its traditional boundaries. Advances in biochemistry, physiology, molecular biology, genetics, and epidemiology have revealed the intricate mechanisms through which nutrients regulate cellular signaling pathways, gene expression, immune responses, hormonal balance, and metabolic homeostasis. This scientific progress has established nutrition as a central component in the prevention and management of major chronic diseases, including obesity, diabetes mellitus, cardiovascular diseases, cancer, neurodegenerative disorders, and autoimmune conditions. At the same time, large-scale clinical studies and population-based research have strengthened the evidence base for dietary recommendations and public health interventions.

The field is currently undergoing a new transformation driven by emerging disciplines such as nutrigenomics, nutrigenetics, metabolomics, microbiome science, and systems biology. These developments are paving the way toward precision nutrition, an approach that tailors dietary strategies to an individual's genetic profile, metabolic characteristics, microbiome composition, and lifestyle factors.

Artificial intelligence, digital health technologies, and wearable devices are further expanding the ability to monitor nutritional status and deliver highly personalized recommendations. In the future, nutrition professionals will play an increasingly important role not only in clinical practice and public health, but also in translational research, biotechnology, and the development of innovative strategies to optimize health across the lifespan.

This programme was created to provide students with a comprehensive and scientifically rigorous education that reflects both the historical foundations and future directions of nutritional science. By integrating core biomedical disciplines with advanced analytical methods and critical appraisal of contemporary research, the programme equips graduates with the knowledge and skills necessary to understand the biological basis of nutrition, interpret emerging scientific evidence, and contribute to the advancement of evidence-based approaches to disease prevention, health promotion, and personalized nutritional care.

Status of nutritionism in Bosnia and Herzegovina

In Bosnia and Herzegovina, the field of nutrition and dietetics is gaining increasing importance as healthcare systems face a growing burden of obesity, diabetes, cardiovascular diseases, and other chronic conditions closely linked to dietary habits and lifestyle.

Recent national and international reports indicate that a substantial proportion of the population is overweight or obese, while nutritional challenges among children and adolescents remain a significant public health concern.

At the same time, the country has made important progress in strengthening the scientific and institutional foundations of nutrition. The Food Safety Agency of Bosnia and Herzegovina has conducted comprehensive dietary surveys using the European Food Safety Authority (EU Menu) methodology, providing nationally representative data on dietary habits and nutritional status.

UNICEF Bosnia and Herzegovina, together with public health institutions and government authorities, has supported the implementation of nutrition-friendly initiatives in kindergartens and schools, while national dietary guidelines have been aligned with international recommendations.

Despite these advances, Bosnia and Herzegovina still has a limited number of formally structured postgraduate educational programmes dedicated to nutritional science.

As awareness grows regarding the central role of nutrition in disease prevention, clinical treatment, sports performance, and healthy ageing, there is an increasing need for highly educated professionals who can integrate knowledge from biochemistry, physiology, molecular biology, and clinical medicine into evidence-based nutritional practice.

The Master Studies in Nutrition at Sarajevo Medical School has been developed in response to this important societal and scientific need.

The programme aims to educate a new generation of experts capable of critically evaluating research, translating scientific discoveries into practical nutritional strategies, and contributing to the advancement of preventive medicine and personalized nutrition in Bosnia and Herzegovina and the wider region.

https://www.unicef.org/bih/en/media/13661/file/%20KAP%20study%20about%20nutrition.pdf

https://globalnutritionreport.org/resources/nutrition-profiles/europe/southern-europe/bosnia-and-herzegovina/

Why master studies in the area of nutrition

The Master Studies Programme in Nutrition and Dietetics at Sarajevo Medical School, University SSST, has been developed in response to the growing recognition of nutrition as one of the fundamental determinants of human health, disease prevention, and clinical outcomes. **As one of the first academically oriented postgraduate programmes of its kind in Bosnia and Herzegovina and the region, it addresses the increasing need for professionals with a strong scientific foundation in nutritional science and evidence-based dietary practice.**

The programme, as a second-cycle studies programme, provides participants with advanced knowledge in the biological and medical foundations of nutrition, including metabolism, nutritional biochemistry, clinical nutrition, public health nutrition, and the critical appraisal of scientific evidence. Through a combination of lectures, case-based discussions, and practical work, students develop the competencies required to apply nutritional science in clinical practice, preventive medicine, and health promotion.

Teaching is delivered by distinguished academic staff, experienced clinicians, nutrition scientists, and invited experts from Bosnia and Herzegovina and abroad.

This multidisciplinary approach ensures that students gain both a rigorous scientific understanding of nutrition and practical insights into its application in healthcare, research, and public health settings.

Teaching is delivered by distinguished academic staff, experienced clinicians, nutrition scientists, and invited experts from Bosnia and Herzegovina and abroad.

Who are the master studies intended for?

The Master Studies in Nutrition are designed for a wide range of professionals seeking advanced scientific and practical knowledge in the field of human nutrition and its application in health promotion, disease prevention, and clinical care, including:

- Physicians and other healthcare professionals involved in preventive medicine, clinical nutrition, and the management of patients with nutrition-related diseases
- Nutritionists, dietitians, and graduates in food science, biology, biochemistry, and related biomedical disciplines
- Professionals working in hospitals, clinics, rehabilitation centres, and wellness institutions responsible for nutritional assessment and dietary planning
- Public health specialists and employees of institutes for public health, ministries of health, and governmental agencies involved in nutrition policy and health promotion
- Professionals in the food and dietary supplement industries engaged in product development, regulatory affairs, scientific communication, marketing, and consumer education
- Sports medicine specialists, fitness professionals, and experts working in sports nutrition and performance optimization
- Pharmacists and other healthcare professionals interested in the role of nutrition in supporting therapeutic outcomes and personalized medicine
- Researchers and academics involved in nutritional science, metabolism, molecular biology, and translational biomedical research
- Professionals working in schools, kindergartens, and community organizations responsible for implementing nutrition and healthy lifestyle programmes

The programme is particularly suitable for individuals who wish to develop a strong scientific foundation in nutrition and acquire the competencies needed to apply evidence-based nutritional strategies in clinical practice, public health, research, and industry.

Delivery Format and Areas of Study

The programme comprises **60 ECTS** credits and is structured across two semesters, addressing the following areas:

SEMESTER 1

Methodology of scientific work, with special reference to applicability in health-economics studies

Principles of nutritional science, basic concepts of human nutrition, nutrient metabolism, dietary requirements, with consideration of contemporary scientific developments and practical applications.

Important aspects of macronutrient metabolism, the digestion, absorption, biochemical pathways, and physiological roles of carbohydrates, proteins, and fats will be presented, together with their significance in energy balance, health, and disease.

Fundamental aspects of micronutrient metabolism, where the absorption, transport, biological functions, and clinical significance of vitamins, minerals, and trace elements will be presented, together with their role in maintaining health and preventing disease.

Concepts of functional foods and dietary supplements, where their composition, mechanisms of action, scientific evidence, and potential roles in health promotion, disease prevention, and supportive nutritional therapy will be presented.

Concepts of food allergies and food intolerances, where the immunological and non-immunological mechanisms, clinical manifestations, diagnostic approaches, and nutritional management strategies will be presented.

SEMESTER 2

Eating disorders, where the underlying biological, psychological, and behavioural mechanisms, clinical manifestations, diagnostic principles, and nutritional approaches to management and treatment will be presented.

Endocrinology and nutrition, where the interactions between hormones and nutritional factors, their effects on metabolism, and their role in the prevention and management of endocrine disorders will be presented.

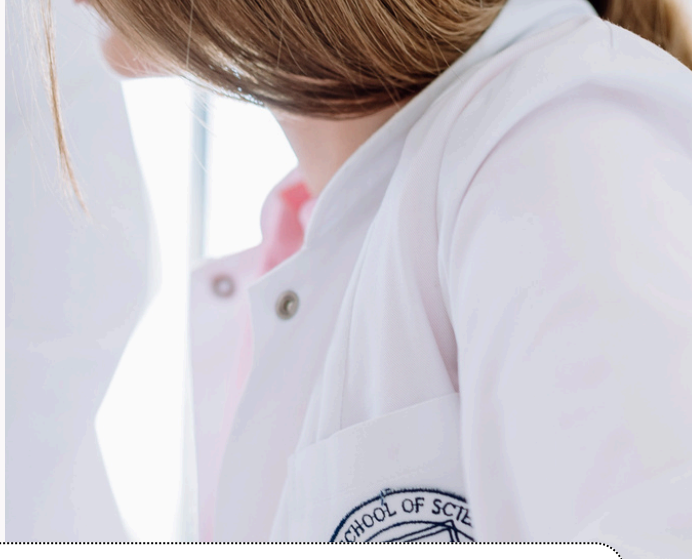
*The classes will be held in **hybrid** format:*

- *Direct contact lectures – on-site lectures*
- *On-line lectures*
- *Seminars and research projects*
- *Final thesis*

Learning outcomes

Upon completion of their studies, students earn the title:

Master of biomedicine - Nutrition



Upon successful completion of these modules, students will be able to:

- Demonstrate a comprehensive understanding of the scientific principles of human nutrition, including the metabolism and physiological roles of macronutrients and micronutrients.
- Explain the biochemical and hormonal mechanisms through which nutrients influence energy balance, metabolism, and overall health.
- Critically evaluate the role of functional foods and dietary supplements in health promotion, disease prevention, and supportive nutritional therapy.
- Distinguish between food allergies, food intolerances, and eating disorders, and describe their underlying mechanisms, clinical manifestations, and evidence-based nutritional management.
- Analyze the interactions between nutrition and the endocrine system, and apply this knowledge to the prevention and management of metabolic and endocrine disorders.
- Interpret and critically appraise contemporary scientific literature in nutritional science and translate research findings into evidence-based dietary recommendations.
- Develop scientifically grounded nutritional strategies aimed at promoting health, preventing disease, and supporting individualized and precision-based nutritional care.

Additional Information

01

Entry Requirements

The programme is open to physicians, nutritionists, dietitians, pharmacists, public health professionals, researchers, and graduates in health sciences, biological sciences, food science, and related disciplines who wish to develop advanced knowledge and practical competencies in evidence-based nutrition. Applicants should hold a relevant university degree and have a strong interest in applying nutritional science in clinical practice, public health, research, or industry.

02

Programme Fees

The tuition fee for the three-year program for BH citizens is 8.000 EUR/year.
Students may qualify for **scholarships and a reduced tuition fee.**

03

Bank Financing Options Are Avaiable

Through a dedicated financing agreement, we will gladly assist future students in applying to our partnering financial institution for study financing with **repayment plans of 3, 5, or 10 years**, offered under specially favourable terms for our SSST students.

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Start Of The Programme

The programme is scheduled to begin in Ocober 2026.

Contact Us

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