

BACHELOR IN NUTRITION AND DIETETICS

Main Language of Instruction:

French ☒ English ☐ Arabic ☐

Campus Where the Program Is Offered: CSM

OBJECTIVES

The Bachelor in Nutrition and Dietetics aims to:

- Develop students' professional careers in different sectors at the local, regional and international levels.
- Provide in-depth knowledge of food composition and nutritional benefits.
- Identify individuals at nutritional risk based on validated screening tools.
- Diagnose nutritional pathologies and disorders based on a global evaluation.
- Develop individualized, well-balanced preventive diets based on dietary needs and assess a nutritional follow-up plan according to the patient's history, medical records, laboratory tests, anthropometric assessment and other diagnostic tests.
- Describe the main stages in the food manufacturing process.
- Design food production systems including premises, equipment, and utensils.
- Apply HACCP and ISO quality assurance standards, including systems for cleaning and maintaining food safety on the premises.
- Participate in community-based nutrition education and intervention programs for communities.
- Adapt fundamental nutrition principles for athletes.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- Establish the basics of nutritional and dietary management of a patient in private practice or in a hospital setting.
- Participate in the management of ready-to-eat food production units (institutional kitchens, catering, industry, pastry shops, etc.).
- Establish the foundations of a food quality control system.
- Educate people or target groups about good eating habits based on nutritional recommendations and a better lifestyle.
- Collaborate in collective work within a team.
- Participate in scientific research in the field of nutrition.

PROGRAM REQUIREMENTS

180 credits: Required courses (136 credits), Institutions' elective courses (12 credits), Open elective courses (6 credits), and USJ General Education Program (34 credits - may be part of the above categories).

Fundamental Courses (148 Cr.)

Required Courses (136 Cr.)

Analytical Chemistry + PW (3 Cr.). Anemias and Oncology + SW (3 Cr.). Bachelor Project (4 Cr.). Cell Biology (2 Cr.). Community Nutrition (3 Cr.). Controversies in Nutrition I (3 Cr.). Controversies in Nutrition II (3 Cr.). Diabetes (1 Cr.). Endocrinology (1 Cr.). Enteral and Parenteral Nutrition (2 Cr.). Food Chemistry + PW (4 Cr.). Food Microbiology I (2 Cr.). Food Microbiology II (2 Cr.). Food Rules, Standards and Safety (3 Cr.). Food Systems Management + SW (2 Cr.). Food Technology + SW (4 Cr.). Gastroenterology + SW (2 Cr.). General Biology (2 Cr.). General Chemistry + PW (3 Cr.). Genetics (3 Cr.). Geriatric Nutrition + SW (2 Cr.). Hepatological Nutrition + SW (2 Cr.). Human Anatomy and Physiology I (4 Cr.). Human Anatomy and Physiology II (4 Cr.). Hyperlipidemia (1 Cr.). Inborn Metabolic Diseases + SW (1 Cr.). Inorganic Chemistry (1 Cr.). Instrumental Analytical Chemistry (3 Cr.). Introduction to the Food Industry + SW (4 Cr.). Introduction to Foods (3 Cr.). Introduction to Nutrition (4 Cr.). Macronutrients I (2 Cr.). Macronutrients II (1 Cr.). Metabolic Biochemistry (3 Cr.). Micronutrients + SW (4 Cr.). Nutritional Care + SW (4 Cr.). Nutrition in the Life Cycle (2 Cr.). Obesity and Metabolic Syndrome (3 Cr.). Organic Chemistry (3 Cr.).



Osteoporosis (1 Cr.). Pathological Semiology (2 Cr.). Pediatrics + SW (2 Cr.). Professional Integration Internship I (1 Cr.). Professional Integration Internship II (1 Cr.). Project in Food Innovation (2 Cr.). PW Culinary Art (3 Cr.). PW Lebanese Terroir (1 Cr.). Renal Diseases I + II (2 Cr.). Sports Physiology and Nutrition (3 Cr.). Structural Biochemistry (3 Cr.). SW Bibliographical Research (2 Cr.). SW Community Nutrition I (1 Cr.). SW Community Nutrition II (1 Cr.). SW Diabetes (1 Cr.). SW Fundamental Nutrition (2 Cr.). SW Exchange System for Meal Planning (2 Cr.). SW Obesity and Metabolic Syndrome (2 Cr.). SW Therapeutic Cuisine (1 Cr.).

Institution's Elective Courses (12 Cr.), to be chosen from the list below:

Article Reading and Analysis I (2 Cr.). Economic and Financial Culture (2 Cr.). First Aid (2 Cr.). Health Sociology (2 Cr.). Hygiene (2 Cr.). Marketing: Tools and Applications (2 Cr.). Nutrition and Public Health (2 Cr.). Personal and Professional Development (2 Cr.). Research Methodology (2 Cr.). Sales Techniques (2 Cr.).

Open Elective Courses (6 Cr.)

USJ General Education Program (34 Cr.)

Code	Course Name	Credits
	ENGLISH OR OTHER LANGUAGE	4
004ANGLL3	English	4
	ARABIC	2
	<i>Arabic Language and Culture</i>	2
435LALML2	Arabic Language and Media	2
	HUMANITIES	10
064VALEL1	USJ Values in Daily Life	2
	<i>Ethics</i>	4
004NSPUL2	Nutrition and Public Health	2
004EOPLL2	Ethics, Professional Orientation and Legislation	2
	<i>Civic Engagement and Citizenship</i>	1
004SAPDL5	SW Environment and Sustainable Development	1
	<i>Other Humanities Course</i>	3
004PHSYL6	Psychology of Nutrition and Eating Disorders + SW	3
	SOCIAL SCIENCES	6
	<i>Professional Integration and/or Entrepreneurship</i>	2
004DPPRL2	Personal and Professional Development	2
	<i>Other Social Sciences Courses</i>	4
004CEFIL1	Economic and Financial Culture	2
004MARKL4	Marketing: Tools and Applications	2
	COMMUNICATION TECHNIQUES	5
004TCOEL2	Oral and Written Communication Techniques	2
004CUGEL1	Communication and Human Relations	3
	QUANTITATIVE TECHNIQUES	7
004BIOQL4	Statistics and Biostatistics	3
004BIMAL2	Office Automation	2
004MATTL1	Mathematics	2

SUGGESTED STUDY PLAN

Semester 1

Code	Course Name	Credits
004CHIL1	Analytical Chemistry + PW	3
435LALML2	Arabic Language and Media	2
004BICLL1	Cell Biology	2
004EOPLL2	Ethics, Professional Orientation and Legislation	2
004CHGEL1	General Chemistry + PW	3
004GENTL1	Genetics	3
004CHIO1	Inorganic Chemistry	1
004MATTL1	Mathematics	2
004BIMAL2	Office Automation	2
004TPACL1	PW Culinary Art	3
004CEFIL1 004DPPRL2 004SOLOI2	Institution's Elective Courses, choose 2 of the following: Economic and Financial Culture Personal and Professional Development Health Sociology	4
	Open Elective Course	2
	Total	29

Semester 2

Code	Course Name	Credits
004CUGEL1	Communication and Human Relations	3
004CONTL2	Controversies in Nutrition I	3
004BIOGL1	General Biology	2
004ANPHL2	Human Anatomy and Physiology I	4
004INNUL2	Introduction to Nutrition	4
004TCOEL2	Oral and Written Communication Techniques	2
004CQUEL1	Organic Chemistry	3
004BIOCL2	Structural Biochemistry	3
004TDNUL2	SW Fundamental Nutrition	2
004NSPUL2 or 004SANEI2	Institution's Elective Courses, choose 1 of the following: Nutrition and Public Health or Hygiene	2
	Open Elective Course	2
	Total	30

Summer Trimester 1

Code	Course Name	Credits
004STIPL2	Professional Integration Internship I	1
	Total	1

Semester 3

Code	Course Name	Credits
004CONTL3	Controversies in Nutrition II	3
004ANGLL3	English	4
004CHALL3	Food Chemistry + PW	4
004BACAL3	Food Microbiology I	2
004MICGL3	Food Microbiology II	2
004ANAPL3	Human Anatomy and Physiology II	4
004CHAIL3	Instrumental Analytical Chemistry	3
004INTAL3	Introduction to Foods	3
004MACRL3	Macronutrients I	2
064VALEL1	USJ Values in Daily Life	2
	Total	29

Semester 4

Code	Course Name	Credits
004RSSAL4	Food Rules, Standards and Safety	3
004GESTL4	Food Systems Management + SW	2
004INTCL4	Introduction to the Food Industry + SW	4
004MCARL4	Macronutrients II	1
004INMTL4	Micronutrients + SW	4
004NUTAL4	Nutrition in the Life Cycle	2
004BIOQL4	Statistics and Biostatistics	3
004TDECL4	SW Exchange System for Meal Planning	2
004SECNL4 004METHL4 004LADAI2 004TEVEI4 004MARKL4	Institution's Elective Courses, to choose 3 of the following: First Aid Research Methodology Article Reading and Analysis I Sales Techniques Marketing: Tools and Applications	6
	Total	27

Summer Trimester 2

Code	Course Name	Credits
004STPRL4	Professional Integration Internship II	1
004TPPLL4	PW Lebanese Terroir	1
004REBLL4	SW Bibliographical Research	2
004TDCTL4	SW Therapeutic Cuisine	1
	Total	5

Semester 5

Code	Course Name	Credits
004PRLIL5	Bachelor Project	4
004NUCOL5	Community Nutrition	3
004DIABL5	Diabetes	1
004ENDOL6	Endocrinology	1
004NEPAL5	Enteral and Parenteral Nutrition	2
004TECAL5	Food Technology + SW	4
004HYPEL5	Hyperlipidemia	1
004SOINL5	Nutritional Care + SW	4
004NUTPL5	Obesity and Metabolic Syndrome	3
004SEMP6	Pathological Semiology	2
004PIALL5	Project in Food Innovation	2
004PHYNL5	Sports Physiology and Nutrition	3
004NCEDL5	SW Community Nutrition I	1
004TDCEL5	SW Community Nutrition II	1
004TDDIL5	SW Diabetes	1
004TDOSL5	SW Obesity and Metabolic Syndrome	2
	Total	35

Semester 6

Code	Course Name	Credits
004ANEML6	Anemias and Oncology + SW	3
004GASTL6	Gastroenterology + SW	2
004NUGEL6	Geriatric Nutrition + SW	2
004NHEPL6	Hepatological Nutrition + SW	2
004MIINL6	Inborn Metabolic Diseases + SW	1
004BIOML6	Metabolic Biochemistry	3
004OSTEL6	Osteoporosis	1
004PEDIL6	Pediatrics + SW	2
004PHSYL6	Psychology of Nutrition and Eating Disorders + SW	3
004MALRL6	Renal Diseases I + II	2
004SAPDL5	SW Environment and Sustainable Development	1
	Open Elective Course	2
	Total	24

COURSE DESCRIPTION

004CHIL1	Analytical Chemistry + PW	3 Cr.
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This course is intended for students enrolled in the first year of a bachelor's degree in nutrition and dietetics.

The objective of the course is to provide practical knowledge of:

- Qualitative and quantitative analytical techniques
- The complete sequence of chemical analysis processes

The objective of the practical sessions (PW) is to provide hands-on experience with basic quantitative analytical techniques covered in the analytical chemistry course.

004ANEML6	Anemias and Oncology + SW	3 Cr.
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Anemia (Course and SW)

This course, offered in the third year of the bachelor's degree in nutrition and dietetics, focuses on the study of anemia in relation to nutrition and clinical dietetic practice. It aims to develop students' in-depth understanding of the pathophysiological mechanisms underlying different types of anemia (deficiency-related, inflammatory, and others), as well as their nutritional determinants.

The course covers the classification of anemia, its etiologies, and the interpretation of key laboratory parameters used for diagnosis (hemoglobin, ferritin, mean corpuscular volume (MCV), transferrin, etc.). Through lab sessions based on case studies, students learn to conduct a comprehensive nutritional assessment, identify risk factors, analyze clinical and laboratory data, and formulate a nutritional diagnosis.

The course emphasizes individualized nutritional management of anemic patients, including the design of appropriate dietary plans, nutritional monitoring, and patient education. Learning is reinforced through activities that promote clinical reasoning, decision-making, and communication skills in nutrition.

Oncology (Course)

This course introduces the fundamental concepts of cancer, including carcinogenesis, risk factors, and strategies for primary, secondary, and tertiary prevention. It also presents diagnostic methods, staging assessment, and the organization of multidisciplinary care for cancer patients.

The course describes the main classification systems, particularly TNM staging, as well as different therapeutic options such as surgery, radiotherapy, chemotherapy, hormone therapy, and targeted therapies. Special attention is given to the side effects of anticancer treatments and to supportive care strategies aimed at improving patients' quality of life.

The role of nutrition in cancer prevention and the impact of dietary and behavioral factors are also addressed. Finally, the course explores dietary adaptations during treatment to maintain nutritional status and reduce complications related to both the disease and its therapies.

Oncology (SW)

This course focuses on the principles of nutrition in oncology, with an emphasis on the prevention, assessment, and nutritional management of cancer patients. It examines the relationship between diet and cancer based on current scientific evidence and international guidelines (ESPEN, WCRF/AICR), as well as the impact of cancer and its treatments on nutritional status.

Particular attention is given to individualized nutritional care and the adaptation of recommendations according to symptoms related to cancer and its treatments.

Learning is reinforced through clinical case studies, enabling students to develop clinical reasoning skills and apply principles of nutritional management in practice.

435LALML2	Arabic Language and Media	2 Cr.
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This course introduces Modern Standard Arabic (MSA) through an interactive approach combining language learning, cultural awareness, and the development of critical thinking. In this track, media serve as a gateway to the Arabic language and to a deeper understanding of the contemporary Arabic world. Drawing on a variety of authentic materials – including newspapers, audiovisual and social media, and digital content – students will explore major issues and debates shaping contemporary Arabic societies. The course aims to develop students' skills in comprehension and expression in MSA. It also encourages critical engagement with media discourse and reflection on the role of media in contemporary societies.

004LADAI2	Article Reading and Analysis I	2 Cr.
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This course introduces first-year pharmacy and nutrition students to the fundamentals of scientific research and critical reading. It aims to develop their understanding of the scientific method and their ability to analyze, interpret, and communicate scientific data.

The first chapter covers the main stages of the research process, from formulating a research question to designing the methodology, while highlighting the role of the pharmacist as a researcher. It also introduces the structure of a scientific article using the IMRAD format (Introduction, Methods, Results, and Discussion) and presents key indicators used to evaluate scientific journals.

Two chapters are dedicated to literature searching and the use of major scientific databases. A major component of the course focuses on epidemiology, including essential epidemiological measures and the different types of studies, such as interventional and observational designs.

Practical sessions allow students to apply these concepts through the analysis of scientific abstracts. The course also addresses the critical appraisal of full research articles, as well as the interpretation of tables and figures. Emphasis is placed on scientific writing, especially the preparation of abstracts and the presentation of results. Upon successful completion of the course, students will have acquired foundational skills in scientific research, critical appraisal, and scientific communication.

004PRLIL5	Bachelor Project	4 Cr.
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Students enrolled in the Bachelor in Nutrition and Dietetics are required to complete a research project as part of their academic program.

The research project is an individual and independent scientific work that involves field investigation of various types (epidemiological, clinical, interventional, technological, etc.) across different areas of nutrition.

At the end of the semester, each student must submit a written scientific report prepared in Word and deliver an oral presentation using PowerPoint. This presentation should summarize the study design, the methodology followed, and the results obtained.

The undergraduate research project represents the student's first experience in scientific research. Its main objectives are to familiarize students with research practices, enable the application of concepts learned in "Research Methodology," and strengthen their skills in written and oral scientific communication.

004BICLL1	Cell Biology	2 Cr.
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This course is intended for students enrolled in the first year of the program. It offers an in-depth study of the cell, the fundamental unit of life, to provide essential knowledge in cell biology and an understanding of biological and metabolic processes.

Structured into seven chapters, the course progressively enables students to acquire a comprehensive view of cellular organization, structure, and function.

It constitutes an essential foundation for understanding the role of nutrients, interpreting biological analyses, and grasping certain pathologies.

The first chapters address the organization of living systems, molecular components, and different cell types. The following chapters focus on the plasma membrane, cellular exchanges, and interactions with the extracellular environment. The nucleus, the cell cycle, and regulatory mechanisms are also examined. Finally, the course explores intracellular organelles and those involved in energy and metabolic processes, such as mitochondria and chloroplasts.

004CUGEL1	Communication and Human Relations	3 Cr.
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This course is intended for students enrolled in the first year of this program.

The objectives of this course are to:

- Recognize and demonstrate a better understanding of oneself.
- Develop existing interpersonal relationships.
- Manage more meaningful interpersonal relationships.
- Develop an environment conducive to effective communication and better relationships with colleagues, supervisors, teachers, etc.
- Express one's own personality without provoking hostility from others, while still earning their respect.
- Foster motivation and a desire to learn among students.

004NUCOL5	Community Nutrition	3 Cr.
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This course develops skills for promoting healthy eating behaviors among diverse populations. It covers assessment methods, tools, and educational approaches adapted to community contexts. Students will learn to design, implement, and evaluate community nutrition programs while considering social, environmental, and policy factors influencing nutrition health.

004CONTL2	Controversies in Nutrition I	3 Cr.
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This course is offered in the first year of the program.

The course aims to enhance students' knowledge in nutrition and guide them in synthesizing information based on recent research and current discussions on various relevant topics.

In each chapter, students will acquire foundational concepts, as well as an understanding of the beneficial effects and potential drawbacks of certain dietary components or dietary practices on the human body and the impact of these factors across different stages of life.

004CONTL3	Controversies in Nutrition II	3 Cr.
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This course is offered in the second year of the program. It aims to enhance students' knowledge in nutrition and guide them in synthesizing information through recent research and discussions on current topics.

In each chapter, students will acquire fundamental concepts, as well as understand the beneficial effects or potential drawbacks of certain food components and dietary patterns during different stages of life.

The topics covered are more complex and advanced, allowing for a deeper understanding of key concepts.

004DIABL5	Diabetes	1 Cr.
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This course, offered during the first semester of the third year of Nutrition, aims to enable students to understand the pathophysiological bases of diabetes, its different types and their mechanisms, as well as its clinical manifestations and diagnostic approaches. The course emphasizes the interpretation of biological parameters (blood glucose, HbA1c, diagnostic tests), the analysis of acute and chronic complications, and the principles of therapeutic management, particularly pharmacological treatment.

Students will be guided to establish connections between clinical, biological, and pathophysiological data to interpret simple clinical situations related to diabetes.

004CEFIL1	Economic and Financial Culture	2 Cr.
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This course is intended for students enrolled in the first year of this program. It covers the fundamental principles of economics, along with key financial concepts such as asset management, wealth building, financial statements, and the functioning of financial markets. The aim is to provide students who wish to pursue entrepreneurship with the essential knowledge needed to get started.

004ENDOL6	Endocrinology	1 Cr.
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This course, offered to third-year students during the first semester, introduces the fundamentals of hormonal physiology and the main endocrine and metabolic diseases. It covers hormonal regulation, thyroid, pituitary, and adrenal disorders, as well as metabolic conditions such as obesity. The course aims to enable students to understand the pathophysiological mechanisms of endocrine diseases, interpret hormonal tests, and grasp management strategies.

004ANGLL3	English	4 Cr.
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This course develops students' written and oral English proficiency and strengthens their ability to communicate effectively with diverse audiences. Students will learn to convey information clearly and effectively in writing, using language and style appropriate to the content and target audience. They will also develop oral communication skills, using appropriate verbal and nonverbal techniques and supporting materials tailored to the purpose and audience.

004NEPAL5	Enteral and Parenteral Nutrition	2 Cr.
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This course, offered to third-year students during the first semester, aims to train students in the principles, calculations, prescription, and monitoring of artificial nutrition, both enteral and parenteral, across various clinical contexts, including critically ill hospitalized patients. Students will develop the skills needed to assess nutritional risk, design individualized nutrition plans, and monitor tolerance and effectiveness of nutritional support while applying the latest international guidelines and protocols.

The course also addresses complex clinical situations such as refeeding syndrome, respiratory failure, sepsis, and the nutritional management of ventilated patients, including those in the context of the COVID-19 pandemic.

004EOPLL2	Ethics, Professional Orientation and Legislation	2 Cr.
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This course, offered to third-year students during the first semester, serves as an introduction to the various career paths within nutrition and dietetics. The first part employs an interactive and reflective approach to help students better identify their interests, motivations, and professional aspirations. It encourages them to consider the populations and environments in which they might wish to work—such as hospitalized patients, healthy individuals, communities, athletes, the food industry, institutional catering, quality control, or marketing. The second part of the course focuses on the legal and regulatory framework governing the dietetics profession in Lebanon. It presents and analyzes two key legislative texts: Law No. 623/2004 regarding the practice of the dietetics profession, and Law No. 284/2022 concerning the establishment and organization of the Order of Dietitians in Lebanon.

By the end of this course, students should be able to identify the main fields of practice in nutrition and dietetics, better define their professional interests, and understand the legal and ethical foundations governing the profession in Lebanon.

004SECNL4	First Aid	2 Cr.
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This course is intended for students enrolled in the second year of this program. Its aim is to present the history and structure of the Red Cross, to share the fundamentals of emergency care and the management of common medical emergencies.

004CHALL3	Food Chemistry + PW	4 Cr.
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This course is offered to students enrolled in the second year of this program.

The objective of the course is to provide practical knowledge on the composition and analysis of foods from the perspective of nutrients, contaminants, and phytochemical substances, as well as to master the various unit operations involved in food processing.

The objective of the practical sessions (PW) is to develop hands-on skills in techniques for food analysis and quality control, as covered in the Food Chemistry course.

004BACAL3	Food Microbiology I	2 Cr.
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This course is intended for students enrolled in the second year of this program. It aims to study the fundamental principles of food microbiology, including its history, classifications, spores and their importance, and the most common pathogenic foodborne microorganisms. It also provides concepts on the effects of microorganisms on food, foodborne infections and intoxications, as well as microbiological control techniques in the agri-food industries and in the environment.

004MICGL3	Food Microbiology II	2 Cr.
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This course is intended for students enrolled in the second year of this program. It aims to raise students' awareness of the importance of protecting consumer health through examples of food risks and crises, and to familiarize them with microorganisms, their behavior in food products and during processing, as well as the consequences of their growth. It also covers biological contaminants responsible for food poisoning (Gram-negative bacteria, Gram-positive bacteria, opportunistic bacteria, anaerobic bacteria, fungal agents, and viral infections).

004RSSAL4	Food Rules, Standards and Safety	3 Cr.
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This course is intended for students enrolled in the second year of this program. Its main objective is to introduce a techno-legal approach and to master food standards in accordance with the Codex Alimentarius, as well as regulations governing the food sector at both international and national levels, in addition to food hygiene measures.

004GESTL4	Food Systems Management + SW	2 Cr.
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This course is intended for students enrolled in the second year of this program. It introduces the principles of food service management and covers the entire production process, from receiving to service. It includes menu planning, human resource management, and the design of production units (facilities and equipment), as well as organizational and environmental aspects. The focus is on applying quality and food safety standards (HACCP, ISO), including hygiene control and management of microbiological and chemical risks. The course also develops skills in project management, applied research, and professional communication.

004TECAL5	Food Technology + SW	4 Cr.
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This course, offered in the third year of the program, introduces students to the scientific and technological principles of food processing in the agri-food industry. It covers major animal- and plant-based food matrices and the technologies used for their transformation and preservation, including dairy, meat, eggs, seafood, fruits and vegetables, bakery products, and processed items such as coffee, chocolate, and beer. Emphasis is placed on physicochemical and biochemical mechanisms and the impact of processing on nutritional, microbiological, and sensory quality. The course also addresses industrial constraints (technological, economic, regulatory) and consumer expectations. Teaching combines lectures, case studies, supervised practical work, and industry visits, with a focus on the Lebanese context.

004GASTL6	Gastroenterology + SW	2 Cr.
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This course, offered in the third year of the program, introduces students to gastroenterology and provides an overview of the main digestive and liver diseases and their characteristics. The course covers the physiology and functions of the principal organs involved in digestion and nutrient metabolism, including the mouth, esophagus, stomach, intestines, and accessory organs such as the liver, pancreas, and gallbladder. This knowledge helps students gain a better understanding of the signs, symptoms, and pathology of diseases affecting the digestive tract. It also enables them to provide appropriate nutritional management for patients diagnosed with these conditions, contributing to faster recovery and the restoration of a nutritional status that meets recommended standards. An appropriate diet and dietary counseling are recognized for their therapeutic role in the treatment of many digestive and liver diseases.

004BIOGL1	General Biology	2 Cr.
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This course is offered to students enrolled in the first year of Pharmacy, LNUDI, and ETLAM programs. Its objective is to introduce students to fundamental concepts in general biology, with a focus on animal biology and developmental biology.

The course is based on the comparative anatomy of vertebrates, reproduction, fertilization, and embryology, along with general concepts of the living world.

004CHGEL1	General Chemistry + PW	3 Cr.
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This course is intended for students enrolled in the first year of this program. The aim of this course is, first, to understand the structure of atoms and their architecture, and to deduce from this the structure and spatial orientation of simple molecules, with the goal of then understanding how molecules can react with one another. Secondly, attention is given to chemical reactions from both a kinetic and thermodynamic perspective. Thirdly, chemical equilibria are studied through two types of equilibria: acid-base equilibria and redox (oxidation-reduction) equilibria.

004GENTL1	Genetics	3 Cr.
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This course is intended for students enrolled in the first year of this program. It provides a clear illustration of how clinical genetics operates. It introduces students to the fundamental principles of human genetics, highlighting its importance and applications in medical practice.

The course presents the essential concepts of the discipline, including the transfer of genetic information from DNA to protein, the impact of nucleotide variations on human diseases, and the main scientific terminology specific to this field.

It then explores the different types of genetic disorders, detailing chromosomal abnormalities (cytogenetics) and monogenic diseases, along with their major modes of inheritance—autosomal dominant, autosomal recessive, and X-linked (dominant or recessive)—as well as their characteristics, specific features, and transmission risks. Selected diseases are examined from both molecular and clinical perspectives. Finally, the course addresses cancer genetics and population genetics.

004NUGEL6	Geriatric Nutrition + SW	2 Cr.
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This course, offered to third-year students of this program, aims to introduce students to the specific aspects of nutrition in older adults. It covers the physiological changes associated with aging, specific nutritional requirements, and the main nutritional disorders encountered in geriatrics, particularly malnutrition, sarcopenia, and swallowing disorders. The course emphasizes understanding the underlying mechanisms and the principles of nutritional management adapted to the geriatric context.

004SOLOI2	Health Sociology	2 Cr.
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This course introduces students to the fundamental concepts of sociology as applied to the field of health. It aims to develop an understanding of how social, cultural, and interactional factors influence health behaviors, as well as perceptions of the body, illness, and care.

The course addresses key topics such as socialization processes, social norms, the spread of rumors, alternative medicine practices, and the interactions between healthcare professionals and patients. It enables students to develop a comprehensive understanding of the social determinants of health and their impact on pharmaceutical practice.

004NHEPL6	Hepatological Nutrition + SW	2 Cr.
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This course, offered in the third year of this program, introduces students to the concept of hepatic metabolic dysfunction and its relationship with metabolic syndrome. The course provides the scientific foundations needed to understand common liver diseases and their nutritional implications.

Particular emphasis is placed on the therapeutic role of diet and dietary counseling in the management of liver disorders. Students will develop appropriate, evidence-based nutritional interventions aimed at improving clinical outcomes and restoring or maintaining patients' nutritional status in accordance with current recommendations.

004ANPHL2	Human Anatomy and Physiology I	4 Cr.
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This course is intended for students enrolled in the first year of this program. It is designed to help students acquire fundamental knowledge about the human body, which is central to their future practice.

Studying anatomy and physiology forms an essential foundation for any career in health sciences, by linking structure and function:

- Anatomy examines the shape, organization of the different parts of the body, and their relationships.
- Physiology focuses on how these structures work, meaning the mechanisms that sustain life.

Clinical cases are included when relevant to illustrate how the body functions normally; they are meant for explanatory purposes rather than as an end in themselves.

The overall objective is to see the body as a dynamic system made up of interdependent parts, rather than just a collection of isolated structural units.

004ANAPL3	Human Anatomy and Physiology II	4 Cr.
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This course is intended for students enrolled in the second year of this program. It aims to enable students to acquire fundamental knowledge about the human body, which is central to their future professional practice. The study of anatomy and physiology constitutes an essential foundation for any career in the health sciences, by establishing the link between structure and function:

Anatomy studies the form, organization of the different parts of the body, and their relationships. Physiology focuses on the functioning of these structures, that is, the mechanisms that ensure the maintenance of life. Clinical cases are incorporated where relevant to illustrate the normal functioning of the body; they are intended for explanatory purposes rather than as an end in themselves.

The general objective is to consider the organism as a dynamic system composed of interdependent parts, rather than as an assembly of isolated structural units.

004SANEI2	Hygiene	2 Cr.
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This course aims to introduce first-year pharmacy and nutrition students to the fundamental principles of general and pharmaceutical hygiene.

It is designed to provide essential knowledge for understanding contamination mechanisms, infection prevention methods, and key hygiene practices in pharmaceutical and healthcare settings. The course places particular emphasis on good personal, environmental, and professional hygiene practices, which are crucial for ensuring patient safety, maintaining the quality of pharmaceutical products, and protecting healthcare personnel.

004HYPEL5	Hyperlipidemia	1 Cr.
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This course, offered in the third year of this program, aims to help students understand the pathophysiological mechanisms of hyperlipidemias and their central role in the development of atherosclerosis. It emphasizes the classification of hyperlipidemias, their genetic and secondary causes, as well as their clinical manifestations and cardiovascular complications.

Students will learn to interpret a lipid profile (total cholesterol, LDL, HDL, triglycerides), analyze cardiovascular risk factors, and establish links between biological, clinical, and pathophysiological data. Particular attention is given to different therapeutic approaches, especially pharmacological treatments.

004MIINL6	Inborn Metabolic Diseases + SW	1 Cr.
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This course, offered in the third year of this program, aims to enable students to understand the pathophysiological mechanisms underlying the main inherited metabolic disorders related to nutrition, as well as their clinical and dietary implications.

The course covers the interpretation of biological data used in the diagnosis of these conditions, the resulting metabolic constraints, and the principles of their nutritional management. Students learn to analyze clinical situations and to adapt dietary plans to meet specific metabolic requirements.

Learning is reinforced through the study of clinical cases, practical exercises in dietary calculations, and activities that promote clinical reasoning and nutrition education for patients and their families.

004CHIOL1	Inorganic Chemistry	1 Cr.
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This course, offered in the first year of this program, provides fundamental knowledge in inorganic chemistry, focusing on the properties of elements and inorganic complexes. Students will learn to identify key chemical properties, understand reactivity, and use systematic and common nomenclature to name inorganic compounds. The course also introduces current topics such as environmental, bioinorganic, and therapeutic chemistry.

Additionally, students will study transition metal complexes, including their structure, nomenclature, formation theories, mechanisms of action, and practical applications, particularly in pharmacology, catalysis, and other scientific industrial domains.

004CHAIL3	Instrumental Analytical Chemistry	3 Cr.
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This course is offered to second-year students in nutrition and dietetics. It aims to provide practical knowledge of instrumental analytical techniques, develop skills across the full process of instrumental chemical analysis, and ensure understanding of the operating principles and applications of analytical instruments.

004INTCL4	Introduction to the Food Industry + SW	4 Cr.
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This course is offered to second-year students. It introduces them to the functioning of the agri-food industries (AFI) and their role in modern food systems. The course covers the scope of AFI, their actors, and value chains, from raw agricultural materials to the final consumer. Students will learn about key food processing methods, major industrial processes, and the interactions between raw materials, processes, and food quality.

Special attention is given to quality, hygiene, and food safety, as well as regulations and risk management in the sector. The course also explores current challenges such as careers, innovation, sustainability, reducing food waste, and changing consumer expectations.

Teaching methods include lectures, case studies, practical exercises, and group work to analyze real industry situations.

004INTAL3	Introduction to Foods	3 Cr.
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This course, offered in the second year of this program, focuses on the nature and properties of foods from different food groups. It provides essential knowledge for participating in the management of ready-to-eat food production units (institutional kitchens, catering, food industries, pastry production). It also strengthens the foundations of human nutrition to support appropriate nutritional care based on individual health status.

004INNUL2	Introduction to Nutrition	4 Cr.
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This course must be taken by students enrolled in the first year of nutrition and dietetics as part of their university program. It includes introductory concepts related to nutritional sciences and food. It serves as a foundational prerequisite for all other nutrition courses in the program.

004MACRL3	Macronutrients I	2 Cr.
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This course, offered in the second year of this program, introduces macronutrients (carbohydrates, lipids, and proteins) and their roles in energy metabolism. It covers their digestion (oral, gastric, intestinal, colonic stages) and intestinal absorption mechanisms. The course also explores carbohydrate metabolism pathways (glycolysis, pentose phosphate pathway, Krebs cycle, glycogenesis, glycogenolysis, gluconeogenesis) with clinical and dietary applications. A specific focus is given to dietary fibers and their role in disease prevention and management. Industrial applications are also highlighted through existing or innovative food products.

004MCARL4	Macronutrients II	1 Cr.
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This course, offered in the second year of this program, covers the following chapters:

- Lipid metabolism: fatty acid synthesis, β -oxidation, lipogenesis, lipolysis, cholesterol and bile salt synthesis, and lipoprotein metabolism, with systematic clinical and dietary applications.
- Protein metabolism: amino acid synthesis (transamination), oxidative deamination, urea cycle, ammoniogenesis, protein synthesis and degradation, with clinical and dietary applications.
- Bioenergetics: components of total energy expenditure (basal metabolism, physical activity, etc.) and measurement techniques such as indirect calorimetry.

Whenever possible, industrial applications are included, presenting existing products or innovative developments.

004MARKL4	Marketing: Tools and Applications	2 Cr.
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This course, offered in the second year of this program, aims to:

- Identify the different basic concepts of marketing.
- Analyze the market and consumer behavior.
- Apply the marketing mix.

004MATTL1	Mathematics	2 Cr.
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This course, offered in the first year of this program, provides an in-depth introduction to the fundamental mathematical tools used in the study of biological systems. Its aim is to equip students with the skills needed to model, analyze, and interpret biological phenomena using key mathematical concepts.

Designed specifically for students in nutrition, ETLAM, or related fields, the course emphasizes an applied approach



to mathematics, directly connected to real biological issues such as population growth, disease spread, nutrient dynamics, genetic inheritance, and more.

004BIOML6	Metabolic Biochemistry	3 Cr.
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This course, offered in the third year of this program, includes an initial section on enzymology, aimed at analyzing enzyme mechanisms in biology and identifying appropriate kinetic models, as well as enzyme inhibition and activation processes and their applications in pharmacy and metabolic biochemistry. The second section of the course focuses on catabolic and anabolic reactions within the major metabolic pathways (carbohydrates, lipids, amino acids, and nucleic acids). It details the energy balance of the different metabolic pathways essential for human life, as well as regulatory and homeostatic mechanisms and their pathophysiological implications. The course also enables students to recognize the main inborn errors of metabolism, as well as the major metabolic diseases and their underlying causes.

004INMTL4	Micronutrients + SW	4 Cr.
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This course, offered in the third year of this program, aims to develop students' in-depth understanding of the role of micronutrients (vitamins and minerals) in maintaining health and preventing diseases.

It covers their physiological functions, metabolism, dietary sources, nutritional requirements, and the effects of deficiencies and excess.

Through supervised practical work, students will analyze dietary micronutrient intake, assess its adequacy, and relate it to nutritional status and health.

004NSPUL2	Nutrition and Public Health	2 Cr.
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This course, offered in the first year of this program, examines collective actions undertaken by institutions, professionals, and communities to protect and improve population health. It addresses social, environmental, and behavioral determinants of health.

Designed for nutrition students, the course considers the role of nutrition within public health and its contribution to the prevention of diet-related diseases and the promotion of healthy lifestyles.

004SOINL5	Nutritional Care + SW	4 Cr.
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This course, offered in the third year of this program, aims to enable students to acquire the fundamentals of nutritional management of patients in private practice or in a hospital setting.

The course is based on the international Nutrition Care Process (NCP) model, which structures the dietetic care approach into four steps: nutritional assessment, nutrition diagnosis, nutrition intervention, and monitoring/follow-up.

004NUTAL4	Nutrition in the Life Cycle	2 Cr.
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This course, offered in the second year of this program, introduces:

The concepts of nutritional needs and nutrient intake, their methods of calculation, and the factors that influence these values.

The nutritional requirements and recommended intakes across different stages of life: newborns, childhood, adolescence, pregnant women, breastfeeding women, as well as the elderly.

The various physiological and metabolic situations specific to these life stages, along with certain clinical applications, in addition to dietary management.

004NUTPL5	Obesity and Metabolic Syndrome	3 Cr.
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This course, offered in the third year of this program, aims to provide students with the fundamental knowledge required to understand, assess, and manage obesity. It covers:

- The different causes and mechanisms involved in weight gain, moving beyond the simplistic explanation of excessive food intake or insufficient physical activity;
 - The morphological, metabolic, and endocrine adaptations of adipose tissue during weight gain;
 - The different patterns of body fat distribution and their health implications;
 - The main principles underlying the management of obesity.
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004BIMAL2	Office Automation	2 Cr.
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This course is offered in the first year of this program. It equips students with essential skills to create, organize, and present information effectively using Microsoft Word, Excel, and PowerPoint. Through practical exercises and applied projects, students will learn to produce professional documents suitable for academic and workplace settings.

Word: Create and format complex documents; use styles, tables of contents, headers/footers, and citations; insert tables, images, and captions; apply academic formatting standards.

Excel: Organize data; use key formulas and functions; create charts; perform basic data analysis (sorting, filtering, pivot tables).

PowerPoint: Design clear and professional presentations; structure ideas visually; use transitions and animations; deliver effective oral presentations supported by slides.

004TCOEL2	Oral and Written Communication Techniques	2 Cr.
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This course, offered in the first year of this program, helps students to develop confidence and effectiveness in oral and written communication. The course covers techniques for presentations, including speaking before a jury, delivering oral reports, creating PowerPoint presentations, and conducting structured demonstrations. It also includes writing emails, CVs, cover letters, reports, and summaries, as well as an introduction to citing sources in research articles.

004CQUEL1	Organic Chemistry	3 Cr.
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This course, offered in the first year of this program, aims to introduce the fundamental concepts of structure, nomenclature, stereochemistry, as well as reaction mechanisms, and to provide students with sufficient mastery of the corresponding terminology. Secondly, the course seeks to integrate these concepts into the explanation of reaction mechanisms in organic chemistry, as well as in the study of various elimination and substitution reactions. The key competencies targeted include acquiring basic knowledge for mastering the main reactions in organic chemistry and for synthesis applied to the pharmaceutical field.

004OSTEL6	Osteoporosis	1 Cr.
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This course, offered in the third year of this program, presents the fundamentals of bone metabolism and the main associated pathologies, particularly osteoporosis. It covers the physiology of bone tissue, the regulation of phosphocalcium metabolism, risk factors, diagnostic methods such as bone densitometry, as well as the principles of preventing bone diseases.

004SEMPL6	Pathological Semiology	2 Cr.
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This course, offered in the third year of this program, introduces students to the main clinical features of common diseases affecting different systems, particularly the cardiovascular and digestive systems. It covers definitions, causes, pathophysiological mechanisms, clinical signs, complications, and diagnostic elements. Students will learn to recognize key clinical signs, analyze simple clinical cases and risk factors, and link clinical, biological, and physiopathological data in interpreting simple clinical cases.

004PEDIL6	Pediatrics + SW	2 Cr.
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Part I

This course, offered in the third year of this program, aims to deepen students' knowledge of pediatric nutrition across different stages of development: the newborn, infant, child, and adolescent.

It specifically explores breastfeeding, including its composition, advantages, disadvantages, contraindications, and strategies to promote and support it.

The course also examines infant formulas, their composition, modifications, and indications according to age and various infant conditions such as colic, regurgitation, allergies, and prematurity.

Premature birth is addressed in detail, including associated complications, nutritional requirements, specialized formulas for preterm infants, post-discharge formulas, and human milk fortifiers. Long-term outcomes and the



concept of nutritional programming are also discussed.

Food protein allergies are extensively covered, including their prevalence, diagnosis, prevention, and treatment. Nutritional management of acute diarrhea is addressed, focusing on modes of transmission, associated risks, and treatment strategies. Similarly, the course explores chronic diarrhea, including malabsorption and maldigestion syndromes, their risks, and nutritional management.

Complementary feeding (weaning) is studied in both theory and practice. Nutritional issues related to micronutrient deficiencies and fast food consumption are evaluated.

Finally, the course examines nutritional challenges in adolescents, their specific requirements, and appropriate management strategies.

Part II

This part of the course aims to enable students to interpret the nutritional determinants of growth, development, and health status in infants, children, and adolescents, based on scientific foundations of pediatric nutrition and life-cycle-specific care principles.

It also equips students to identify and analyze the components of a comprehensive nutritional assessment, including:

Anthropometric data

Biochemical parameters

Clinical findings

Dietary intake

This approach helps in detecting nutritional risks and major pediatric conditions such as malnutrition, growth retardation (stunting), and overweight/obesity in the pediatric population.

004DPPRL2	Personal and Professional Development	2 Cr.
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This course, offered in the first year of this program, supports students in developing personal and professional competencies to unlock their potential. It is intended for individuals wishing to reflect on their career path and grow within their profession.

The course helps students mobilize their knowledge, skills, and attitudes by setting achievable short- and long-term goals aligned with their aspirations. Its primary objective is to foster a proactive mindset toward identifying learning opportunities and engaging in lifelong learning and continuous personal and professional development. In practice, the course develops intrapersonal, interpersonal, and professional skills essential for effectively carrying out the role of a nutritionist.

004STIPL2	Professional Integration Internship I	1 Cr.
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This professional internship, offered at the end of the first year of this program, aims to introduce students to various fields of practice in nutrition, dietetics, and food technology through supervised observational placements in different sectors.

The student is required to complete a total of 80 hours (2 internships × 40 hours), distributed across the following settings:

- Catering services and diet centers
- Sports centers
- Collective catering and central kitchens (quality control)
- Food industry
- Retail outlets for nutritional products / pharmacies

004STPRL4	Professional Integration Internship II	1 Cr.
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This professional internship, offered at the end of this program, aims to introduce students to various practice settings in nutrition, dietetics, and food technology through supervised observation internships across different sectors. Students complete a total of 80 hours (2 placements × 40 hours) in the following settings:

- Hospital dietetics department (mandatory)
 - Catering and diet centers
 - Sports centers
 - Collective catering and central kitchens (quality control)
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- Food industry
- Retail points for nutritional products / pharmacies.

004PIALL5	Project in Food Innovation	2 Cr.
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This course, offered in the third year of this program, aims to put theoretical learning into practice and to develop the practical skills necessary to promote healthy eating behaviors within various populations and social groups. It enables students to apply evaluation methods and tools, experiment with appropriate pedagogical approaches, and develop a comprehensive approach to community nutrition interventions that integrates the social, environmental, and political factors influencing nutritional health.

Through practical activities, case studies, and an applied project, students will be required to design, implement, and evaluate a real nutritional intervention targeting a specific population.

004PHSYL6	Psychology of Nutrition and Eating Disorders + SW	3 Cr.
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This course, offered in the third year of this program, aims to provide an understanding of the fundamental family, cultural, and psychological factors influencing eating behaviors and their impact on dietary habits. It introduces students to eating disorders (EDs), including their identification, main causes, and multidisciplinary management. The course also equips students with scientifically validated tools to diagnose nutrition-related conditions through comprehensive assessment, design individualized and balanced preventive diets, and develop follow-up nutrition care plans after dietary intervention for EDs.

004TPACL1	PW Culinary Art	3 Cr.
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This practical culinary course, offered in the first year of this program, aims to introduce basic culinary skills through hands-on practice of recipes provided by the assigned chef. The sessions target the preparation of balanced and nutritious dishes and identify quantities and portion distribution according to recipe guidelines.

004TPPLL4	PW Lebanese Terroir	1 Cr.
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This course is offered in the second year of this program. It aims to introduce students to Lebanese terroir products and their cultural, geographical, economic, and nutritional dimensions.

The course presents the fundamental concepts related to terroir, traditional products, and quality schemes, as well as the challenges of promoting, marketing, and preserving food heritage. Students also explore the specific characteristics of the Lebanese terroir, including traditional products and mounneh preparations, which constitute an important component of the country's culinary heritage and local food system. Particular emphasis is placed on the challenges related to product quality, traceability, and value enhancement, especially within the context of small enterprises and rural cooperatives.

This approach enables students to develop an integrated understanding of terroir products by combining scientific analysis, fieldwork, and interaction with stakeholders of the local food system. The course also promotes project-based learning and collaborative work, engaging students in the analysis and resolution of real-life issues related to traditional products and Lebanese food heritage.

004MALRL6	Renal Diseases I + II	2 Cr.
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This course, offered in the third year of this program, introduces students to renal physiology and the pathophysiology of major kidney disorders, with particular emphasis on acute kidney injury (AKI), chronic kidney disease (CKD), and urinary stone disease.

The course covers the medical and nutritional management of kidney disease across its different stages. Particular attention is given to strategies aimed at slowing CKD progression before dialysis and managing fluid, electrolyte, and metabolic disturbances. Renal replacement therapies, including hemodialysis, peritoneal dialysis, and kidney transplantation, are presented from both technical and functional perspectives.

Students will also examine evidence-based nutritional interventions for patients receiving dialysis and after kidney transplantation, in accordance with international guidelines, including KDOQI, AND, and KDIGO recommendations.

004METHL4	Research Methodology	2 Cr.
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This course, offered in the second year of this program, introduces students to general research concepts and to writing a research project in the form of a review or a synthesis study, following scientific standards and criteria. This course is complemented by a bibliographic search at the library of the Faculty of Pharmacy of Saint Joseph University of Beirut.

004TEVEI4	Sales Techniques	2 Cr.
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This course develops effective sales and communication skills for professional interactions with colleagues and business associates. Through interactive, hands-on activities, students will explore key sales and communication concepts and techniques, including body language, nonverbal cues, eye contact, perception, conditioning, and active listening. The course also examines how openness to different perspectives can enhance communication, sales effectiveness, and interpersonal relationships. Students will apply these skills to writing, speaking, presentations, research, and the development of professional work.

004PHYNL5	Sports Physiology and Nutrition	3 Cr.
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This course, offered in the third year of this program, is essential in the foundational training of a dietitian and provides an opportunity to pursue specialization field of Sports Nutrition.

This course is a mandatory prerequisite for the Master's program in "Sports Nutrition and Physiology" at the Faculty of Public Health (FP) of USJ.

It contributes to broadening the range of dietetic care competencies and complements courses related to the dietary management of obesity and various pathologies (therapeutic nutrition).

Therefore, this course helps develop the multidisciplinary competencies that a dietitian is expected to acquire upon completion of their training.

004BIOQL4	Statistics and Biostatistics	3 Cr.
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This course, offered in the second year of this program, helps students understand the principal statistical methods used in the analysis of clinical data and clinical interventional studies and pharmacoepidemiological research. It aims to develop the ability to critically evaluate statistical methodologies and study protocols presented in scientific literature.

004BIOCL2	Structural Biochemistry	3 Cr.
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This course, offered in the first year of this program, prepares students for subsequent courses in metabolic and clinical biochemistry. It provides the necessary foundations for an in-depth understanding of the structure, molecular composition, and properties of biomolecules: carbohydrates, lipids, proteins, and nucleic acids, as well as their constituent elements.

This course comprises five chapters. After a general introduction to biochemistry—highlighting its importance and central role in the life sciences, as well as the influence of chemical groups and three-dimensional structure on the function of biological molecules—it successively covers carbohydrates, lipids, proteins, and nucleic acids. For each family of molecules, the following aspects are presented: structure, classification, physical and chemical properties, representations, derived molecules, polymers, biological roles, and their importance within the organism.

004REBLL4	SW Bibliographical Research	2 Cr.
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This course is delivered in the second year of the Nutrition program during the summer semester. It contributes to the development of the following competencies: "Participate in scientific research in the field of nutrition" and "Collaborate effectively within a team."

The course aims to introduce students to the fundamentals of literature research in nutrition and scientific writing. It develops the skills required to formulate a research question, identify and select relevant scientific articles, critically analyze their content, and synthesize information into a structured written document.

004NCEDL5	SW Community Nutrition I	1 Cr.
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This course, offered in the third year of this program, aims to apply theoretical knowledge and develop practical skills for promoting healthy eating behaviors across diverse populations.

Students will use assessment tools, explore adapted educational approaches, and design a comprehensive community nutrition intervention integrating social, environmental, and policy factors.

Through practical activities, case studies, and a project, they will plan, implement, and evaluate a real nutrition intervention targeting a specific population.

004TDCEL5	SW Community Nutrition II	1 Cr.
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This course, offered in the third year of this program, enables students to apply knowledge acquired in nutrition, sports nutrition, and therapeutic nutrition to community-based health promotion activities.

Students will develop educational tools on selected topics, such as obesity, diabetes, maternal nutrition, and sports nutrition, with emphasis on the role of healthy eating and regular physical activity in the prevention and management of chronic diseases. The course concludes with a field intervention conducted in settings such as schools, municipalities, dispensaries, sports clubs, or non-governmental organizations.

004TDDIL5	SW Diabetes	1 Cr.
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This tutorial, offered in the third year of this program, aims to develop students' skills in the nutritional management of patients with diabetes. Through guided learning sessions based on case studies, students will apply the different steps of the Nutrition Care Process (NCP) to analyze clinical and nutritional data of diabetic patients, formulate appropriate dietary recommendations, and design individualized therapeutic meal plans.

It also strengthens students' competencies in nutrition education, particularly regarding the role of diet and physical activity in the prevention and management of diabetes.

004SAPDL5	SW Environment and Sustainable Development	1 Cr.
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This course, offered in the third year of this program, introduces students to food security, its key components, and global nutritional challenges. It also addresses sustainable development issues and the application of knowledge to improve the environmental performance of food products. The course aims to develop understanding and analysis of food security concepts and food policies in both developed and developing countries, as well as their integration into broader economic policies. Skills developed:

Participate in managing ready-to-eat food production units (catering, food industry, pastry, etc.). Establish basic food quality control systems.

Work collaboratively within a team.

004TDECL4	SW Exchange System for Meal Planning	2 Cr.
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This course, offered in the third year of this program, enables students to acquire fundamental knowledge of the Exchange System for Meal Planning, develop diets for healthy individuals in specific life situations, and design preventive diets against certain diseases.

004TDNUL2	SW Fundamental Nutrition	2 Cr.
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This course, offered in the first year of this program, enables students to better understand foods, their physical, chemical, and organoleptic properties, as well as their classification according to nutritional profiles. It addresses the impact of culinary processing on nutrients, the estimation of portions using the Food Equivalents system, and the assessment of dietary intake based on dietary guidelines (DG). It also allows for the analysis of the composition of common dishes by food groups and the classification of foods according to international standards and their health implications.

004TDOSL5	SW Obesity and Metabolic Syndrome	2 Cr.
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This course, offered in the third year of this program, covers the dietary management of obesity, cardiovascular diseases, metabolic syndrome, and hypertension.

004TDCTL4	SW Therapeutic Cuisine	1 Cr.
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This course is offered in the second year of this program.

This practical session integrates concepts of nutrition, dietetics, and culinary application techniques. The main objective is to develop a selection of dishes (starter, main course, dessert) based on a theme assigned by the instructor.

Students will conduct research to select ingredients compatible with the chosen dietary approach or theme. Under the supervision of a chef, original recipes are adapted to improve their nutritional quality. The caloric content, as well as macro- and micronutrient composition of the final recipes, is analyzed using specialized software.

The final step involves preparing the dishes and presenting them to a jury and/or producing brochures containing recipes with tailored nutritional advice, to be shared with a target population.

064VALEL1	USJ Values in Daily Life	2 Cr.
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This course introduces students to the core values of Saint Joseph University of Beirut (USJ), enabling them to integrate these values into their personal, interpersonal, and professional lives. It encourages students to critically reflect on how the values outlined in the USJ Charter can influence their behaviors, actions, and decisions in addressing the challenges of the contemporary world. It also raises awareness of global issues and ethical responsibilities, preparing students to contribute positively to society.