

MSNBL COURSE DESCRIPTIONS

Required Courses

NUTB 5110 Leadership Development

2 Didactic Credits

This course helps students cultivate essential leadership skills and equips them with the knowledge, skills, behaviors, and self-awareness that will allow them to assume greater leadership responsibility, improve corporate performance, and drive competitive advantage.

Prerequisites: Admission to the program

NUTB 5120 Gastrointestinal Physiology

2 Didactic Credits

This course explores normal human physiology with an emphasis on the physiology of the gastrointestinal tract. Students will learn mechanisms and regulation of motor, secretory, digestive, and absorptive functions of the gastrointestinal tract and how they impact human health. The course also introduces students to microbiomics and the role and application of prebiotics and probiotics in health and disease.

Prerequisites: Admission to the program

NUTB 5130 Organizational Development

2 Didactic Credits

This course cultivates an understanding of human behavior in an organizational setting and helps students gain insight into strategies and methods that strengthen team performance, organizational dynamics, and organizational culture.

Prerequisites: Admission to the program

NUTB 5140 Gastrointestinal Pathophysiology

2 Didactic Credits

This course provides students with essential medical knowledge and a broad understanding of human disease with a focus on the pathophysiology of the gastrointestinal tract. Students will also build upon their understanding of microbiomics and the role and application of prebiotics and probiotics in health and disease.

Prerequisites: Admission to the program

NUTB 5210 Clinical Biochemistry I: Macronutrients, Human Metabolism, and Energy

3 Didactic Credits

This course explores key concepts in human metabolism and energy production by focusing on the structure, function, and metabolism of carbohydrates, lipids, proteins, nucleotides, water, and alcohol. Students learn about the digestion and absorption of these compounds and how to identify signs and symptoms of insufficiency, deficiency, and excess for application in clinical practice.

Prerequisites: NUTB 5120, NUTM 5140

NUTB 5220 Self-care: Role-modeling Health Behaviors

2 Didactic Credits

This course improves self-care in students to promote personal sustainability and prevent burnout for their well-being as well as for the benefit of their future clients and team members. Through a combination of didactic and experiential learning, students gain an understanding of the importance and impact of self-care practices. An emphasis will be placed on hands-on, practical approaches for making sustainable changes in diet, exercise, stress management, and sleep hygiene to reduce the risk of disease and promote health. As students are empowered with an enhanced capacity for self-care, it is expected that they will be more inclined, and better equipped, to implement these strategies when counseling future clients and/or when leading teams.

Prerequisites: Admission to the program

NUTB 5230 Clinical Biochemistry II: Vitamins and Minerals

2 Didactic Credits

This course explores key concepts in human metabolism and energy production by focusing on the structure, function, and metabolism of micronutrients: vitamins, macrominerals, and trace/ microminerals. Students learn about the digestion and absorption of these nutrients and how to identify signs and symptoms of insufficiency, deficiency, and excess for application in clinical practice.

Prerequisites: NUTB 5120, NUTB 5140

NUTB 5240 Botanicals and Phytonutrients

2 Didactic Credits

This course introduces students to the biochemical actions, physiologic effects, and clinical application of plants, phytochemicals, and zoochemicals. Students will learn the historical and traditional uses of common botanicals and modern, evidenced-based applications. Pharmacognosy, clinical use, indications, dosage, formulations, and safety considerations will be explored.

Prerequisites: NUTB 5120, NUTB 5140

NUTB 5311 Dietary and Supplement Guidelines, Policies, and Safety

2 Didactic Credits

This course explores the roles of government agencies in regulating the manufacturing, labeling, and advertising of individual foods and dietary supplements and in regulating overall food systems and the food supply. Students also learn about national and international dietary guidelines, potential sources of food contamination, and best practices associated with the safe handling of food.

Prerequisites: Admission to the program

NUTB 5321 Evidence-Informed Practice and Decision Making

1 Didactic Credit

This course develops students' information literacy skills by providing instruction on how to critically read, interpret, and apply scientific literature with a specific emphasis on food and nutrition research. Students learn about the hierarchy of evidence, research methodologies, ethics, and data analysis. Upon completion of this course, students will be able to evaluate research findings and apply findings to inform therapies and decisions and to substantiate claims.

Prerequisites: Admission to the program

NUTB 5330 The Food and Supplement Industry: Policies and Regulations**2 Didactic Credits**

This course will expound upon the information covered in Dietary and supplement guidelines, policies, and safety. Students will gain an in-depth understanding of the natural food/supplement industry policies and regulations including Current Good Manufacturing Practice (CGMP), FDA Food Safety Modernization Act (FSMA), preventive controls, and international standards.

Prerequisites: NUTB 5210, NUTB 5230

NUTB 5340 Dietary Patterns for Health Promotion**2 Didactic Credits**

This course provides instruction on evidence-based dietary patterns to support health and prevent disease. Positive and negative aspects of popular diets (e.g., Mediterranean diet, glycemic index, ketogenic diet, vegan diet, vegetarian diet, paleo diet) and controversial topics in nutrition will be examined. Students will learn how to formulate dietary recommendations for specific individuals to address health-related benefits or concerns and develop a working knowledge of dietary belief systems of commonly encountered ethnic cultures.

Prerequisites: NUTB 5140

NUTB 5430 Negotiation and influence**1 Didactic Credit**

This course provides instruction on how to affect another individual's opinion, perspective, behavior, and/or actions. Students will learn the distinction between influence and manipulation or coercion. Negotiation strategies that lead to win-win outcomes and that maximize the value of the agreement for all parties will also be explored.

Prerequisites: Admission to the program

NUTB 5450 Strategic sales and marketing**4 Didactic Credits**

This course equips students with effective sales and marketing strategies. Students will learn about regulations regarding marketing claims, consumer behavior, establishing brand value and positioning, and determining appropriate sales channels. Students will also gain insight into how the industry is changing and how to capitalize on change.

Prerequisites: Admission to the program

NUTB 5500 Executive Leadership Experience**1 Didactic Credit**

The Executive Leadership Experience allows students to learn from and network with industry experts and classmates during a weekend-long residency at Sonoran University's campus in Tempe, Arizona. This immersive experience brings together distinguished nutrition and business leaders from across the country and solidifies bonds between classmates to create a lifelong professional network. Students will build upon prior learning, gain new insights, and strengthen their ability to think strategically and act decisively.

Prerequisites: NUTB 5110, NUTB 5130, NUTB 5311, NUTB 5330

NUTB 5511 Sustainability and Corporate Social Responsibility**2 Didactic Credits**

This course explores the concept and practice of corporate sustainability and responsibility. Students learn how to cultivate a responsible and purpose-driven organization and how to monetize the model.

Prerequisites: NUTB 5321

NUTB 5520 Supply Chain Management**2 Didactic Credits**

This course provides instruction in supply chain strategy: from raw materials and inventory to finished goods, and from point of origin to point of consumption. Students learn about all aspects of supply chain management including the impact of an organization's culture in driving supply chain success. Upon successful completion of this course, students will be able to effectively manage global end-to-end supply chain activities.

Prerequisites: Admission to the program

NUTB 5550 Innovation: New Product Development and Manufacturing**2 Didactic Credits**

This course offers instruction in the basics of formulating products including legal ingredients, safety, efficacy, consistency, raw material cost, sourcing raw materials, testing, quality assurance, documentation, and warehousing. Students learn how to start and manage innovative projects, launch and manage their own business, propose new business ideas, and work with cross-functional teams.

Prerequisites: Admission to the program

Selective Courses

NUTB 5910 Stress Management**2 Credits**

This course will allow the student to effectively identify and treat signs and symptoms of stress utilizing stress management principles and practices such as meditation, breathing techniques, and cognitive restructuring techniques. Experiential exercises will build students' stress management skills. The course will also guide students on how to apply these skills to patients in clinical practice.

Prerequisites: Admission to the program

NUTB 5920 The Human in Nature**2 Didactic Credits**

This course will explore the concepts, theories, and research behind the benefits of nature exposure. Pertinent research on health conditions in all populations will be discussed and analyzed. The ultimate intent of this course is to impress upon the student the need for continued exposure to nature and play throughout human life cycles in school, work, and community settings.

Prerequisites: Admission to the program

NUTB 5930 Botanical Medicine in the High Desert and Upper Canyons of Sedona**2 Didactic Credits**

This hybrid field study course is set in Sedona and the surrounding high desert and upper canyons below the Mogollon Rim. The purpose of this selective is to enhance knowledge and clinical use of plants native and naturalized to this area. A variety of locations and plant zone communities will be visited in order to observe a variety of medicinal plants. Discussions will include ethnobotanical/ historical use, plant identification, organoleptics, and energetics, primary actions, medicinal use, key constituents, extraction, delivery, dose, and safety issues. Discussions will be infused with personal experiences and clinical examples. Ethical wildcrafting and formulation strategies will be emphasized. A variety of extraction techniques will be demonstrated as well as a discussion of the best delivery.

Prerequisites: NUTB 5120, NUTB 5140, NUTB 5210, NUTB 5230, NUTB 5240

NUTB 5940 Pharmacognosy & Phytochemistry**2 Didactic Credits**

This course is an overview of secondary metabolites found in medicinal plants. This topic will be explored through the major classes of plant constituents in order to understand the activity of plants and offer a framework for the clinical application of botanical medicine. It will cover basic plant chemistry and examine solubility and extraction, variability and synergy, as well as review biosynthetic pathways, absorption, metabolism, standardization, and concentration. The primary focus of the course is on the major categories and subcategories of phytochemicals relevant to botanical medicine and the physiological effects these constituents have on the human body.

Prerequisites: NUTB 5120, NUTB 5140, NUTB 5210, NUTB 5230, NUTB 5240

NUTB 5950 Probiotics from Research to Market**2 Didactic Credits**

This course brings students along the supply chain and value chain of probiotics and explores this rapidly evolving field from the perspective of the scientist, the clinician, the manufacturer, and the consumer. Students will gain an understanding of the scientific basis for these products, evidence-based clinical applications, and key regulatory and manufacturing considerations. Instruction will also be provided on the basics from research and development, formulating products, and QA/QC, to manufacturing, labeling, and commercialization.

Prerequisites: NUTB 5120, NUTB 5140, NUTB 5311, NUTB 5330, NUTB 5321