

# HEALTH SCIENCES (HLSC)

## HLSC-215 Nutrition Sciences and Application (4 Credits)

Principles of nutrition, including macro- and micronutrients and their functions, DRIs, and assessment of nutritional status and dietary patterns are explored. In-depth review of digestion, absorption, utilization, and function of nutrients, with emphasis on using food for disease prevention and wellness. Concepts and skills are developed through an integrated lab.

**Prerequisite(s):** INHLSC-175

**Offered:** Spring, Every Year

## HLSC-225 The Nutrition Profession (2 Credits)

An introduction to the educational, professional, and career expectations in the nutrition profession. Students will explore career options, including national registration, community service, and lifelong learning. Other topics include ethics, research, and current issues in health. Professional portfolios will be introduced.

**Prerequisite(s):** INHLSC-175 and Nutrition or Nutrition and Dietetics

Options only

**Offered:** Spring, Every Year

## HLSC-240 Microbio for Health Profession (4 Credits)

An introduction to microbiology for health professionals. Topics include microbial cell structure and function, microbial physiology, genetics, basic virology, control of microbial growth, epidemiology, immunology, and food microbiology. Laboratory experiences include microscopy, staining, culturing and basic molecular techniques. Material delivered via 3 hours lecture and 2 hours lab per week.

**Offered:** All, Every Year

## HLSC-245 Introduction to Research Methods (4 Credits)

An introduction to research methods, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches. Students will critically review published research in public health and determine how research findings are useful in guiding evidence-based decisions.

**Prerequisite(s):** Public Health and Health Sciences Majors Only

**Offered:** Spring, Every Year

## HLSC-290 Topics in Public Health (4 Credits)

Study of a selected topic in Public Health. May be repeated as topics change.

**Prerequisite(s):** May vary as topics change

## HLSC-298 Independent Study (1-8 Credits)

An opportunity for a qualified student to explore work in an area of individual interest, selected and pursued in consultation with a faculty member. Consent required of the instructor who will supervise the independent study. Repeatable for a total of 8 credits.

**Offered:** All, Every Year

## HLSC-305 Epidemiology (4 Credits)

An introduction to the basic principles and methods of epidemiology and their applicability in the field of Public Health. Students will examine factors governing health and disease in populations. Skills will be introduced to critically interpret the epidemiologic literature relevant to health professionals.

**Prerequisite(s):** MATH-141 or permission of instructor

**Offered:** Spring, Every Year

## HLSC-308 International Health (4 Credits)

An examination of international health from a local and global perspective. The course will examine global institutions, identify approaches to measuring health needs, burden of non-communicable diseases and infectious diseases, relief/support systems, cultural humility, global health systems, policies, priority setting and community participation.

**Offered:** Fall, Even Years

## HLSC-313 Food Service Management (4 Credits)

Theory and integrated practice in management of planning, directing, and coordinating food service systems. Topics: menu design, purchasing, inventory, food production and service, finances, personnel management, space or equipment layout and use, and food safety or sanitation certification. Application of principles through service-learning field experiences.

**Prerequisite(s):** Junior or Senior standing or permission of instructor

**Offered:** Spring, Every Year

## HLSC-318 Nutrition Throughout the Lifespan (4 Credits)

Comprehensive examination of nutritional requirements, physiological demands, and health concerns from preconception through late adulthood. Challenges posed by physical and psychological growth, development, and lifelong wellness are discussed. Nutrition assessment, intervention, and evaluation of individuals, groups, and communities are addressed. Integrated application of skills through community-based observations.

**Prerequisite(s):** ?HLSC-215

**Offered:** Fall, Every Year

## HLSC-325 Leadership in Public Health (4 Credits)

Explores public health and community-based models and theories to identify common problems and strengths to mobilize resources and achieve health goals. Public health, health communication, field work tools, coalition building, cross-cultural competency skills, and evaluation of community organizing processes are explored using an interdisciplinary approach.

**Prerequisite(s):** ISHLSC-285

**Offered:** Fall, Every Year

## HLSC-360 Physical Activity and Health (4 Credits)

This course explores the essential role of physical activity in promoting and maintaining health based on current exercise physiology research. Students will develop a physical activity program for apparently healthy populations and those with common chronic conditions.

**Prerequisite(s):** BIO-230 and BIO-332

**Offered:** Fall, Every Year

## HLSC-380 Addiction and Behavior Change (4 Credits)

The analysis of addiction and behavior change through theoretical perspectives and models, including but not limited to the Public Health model, Sociocultural perspective, Psychological perspectives, Transtheoretical model, and Health Belief Model. Interventions and Treatment are addressed. Prerequisite: Sophomores, Juniors or Seniors only.

**Offered:** All, Every Year

## HLSC-414 Medical Nutrition Therapy I (4 Credits)

An in-depth examination of nutritional assessment concepts such as anthropometry, dietary intake data collection methods, biochemical measurements, and food/nutrient-medication interactions and their application within the nutrition care process.

**Prerequisite(s):** HLSC-482; Co-requisite HLSC-318

**Offered:** Fall, Every Year

**HLSC-415 Nutritional Biochemistry (4 Credits)**

An in-depth analysis of digestion, absorption, transport and cellular metabolism of macronutrients while emphasizing certain micronutrients. Disorders of energy metabolism are addressed such as obesity, diabetes and malnutrition. The course integrates aspects of scientific method principles and its application to the field of nutrition.

**Prerequisite(s):** BIO-332, and CHEM-220 or CHEM-221

**Offered:** Fall, Every Year

**HLSC-416 Medical Nutrition Therapy II (4 Credits)**

Comprehensive coverage around pathophysiology of disease and nutrition care for prevention and treatment of disease. Application of the nutrition care process to various diseases and the metabolic response to critical illness as well as the use of parenteral and enteral nutrition. Integrated application of skills through 1:1 service-learning field experience. Corequisite HLSC-414.

**Prerequisite(s):** BIO-332, HLSC-318, HLSC-482

**Offered:** Spring, Every Year

**HLSC-473 Practicum (4-8 Credits)**

Field-based experience for students to develop professional skills and apply theory, strategies, interventions, and knowledge learned in the classroom. Application through Public Health Department.

**Offered:** Spring, Every Year

**HLSC-482 Counseling & Education Skills (4 Credits)**

This course offers an introduction to counseling theories and techniques and health education programming. Topics include individual and group counseling skills, using Cognitive Behavioral Therapy, Motivational Interviewing and Person-Centered Therapy. Students will develop, facilitate, and assess a wellness education program.

**Prerequisite(s):** Public Health and Health Sciences majors or Addiction minors only, sophomore standing or above, or permission of instructor

**Offered:** All, Every Year

**HLSC-490 Advanced Special Topics (1-4 Credits)**

Study in area of Public Health beyond that provided in other courses. May be repeated as topics change.

**Prerequisite(s):** Varies with topic

**Offered:** All, Every Year

**HLSC-491 Addiction: Critical Issues (4 Credits)**

This course examines new or developing theories, methods, models, techniques, and concepts in the field of addiction.

**Prerequisite(s):** HLSC-380

**Offered:** Fall, Every Year

**HLSC-493 Co-Occurring Disorders (4 Credits)**

An in-depth examination of co-occurring mental health and substance use disorders. The course will cover an introduction to assessment, diagnosis, intervention, treatment, recovery, and relapse prevention for co-occurring disorders.

**Prerequisite(s):** HLSC-380

**Offered:** Spring, Every Year

**HLSC-494 Health Sciences Capstone (4 Credits)**

This course focuses on professional preparedness in Health Sciences. Divided into modules guided by constructs from Program Planning with focus on evidence-based programming/scope of practice, individual and community-based programming, ethical practice and evaluation. Final products relate to professional preparedness that demonstrate skills, teamwork, and leadership.

**Prerequisite(s):** HLSC-245 & Senior standing

**Offered:** Spring, Every Year

**HLSC-498 Independent Study (1-8 Credits)**

Independent study under faculty supervision of a problem in an area of Public Health. Initiative and self-direction required. May be repeated for a total of 8 credits.

**Prerequisite(s):** Permission of instructor

**Offered:** All, Every Year

**IIHLSC-216 Food Culture in Communities (4 Credits)**

An interdisciplinary course exploring nutrition and food in our communities through policy, food security/economics, and culture. Federal nutrition assistance programs are discussed including laws, qualifications, and services. Cultural competency is explored through beliefs, customs, religion, communication, and food practices of various cultural groups and self. Students prepare culturally inspired foods.

**Offered:** Fall, Every Year

**IIHLSC-330 Resiliency for Well-Being (4 Credits)**

A multi-disciplinary course that explores the sociological, psychological, biological and spiritual components of resiliency. Includes discussion, contemplation, self-reflection and active practice of strategies that cultivate resiliency such as: meditation, ecotherapy, communication skills, conflict resolution, cognitive restructuring, forgiveness, art, yoga, and time management.

**Prerequisite(s):** 24 credits ISP, including ITW-101 and QL

**IIHLSC-350 Women and Health (4 Credits)**

A survey of womens health from the biological, social, economic, and political perspectives, drawing from the interdisciplinary field of public health.

**Prerequisite(s):** 24 credits in ISP, including ITW-101 and QL

**Offered:** Fall, Odd Years

**IIHLSC-445 Human Sexuality (4 Credits)**

An interdisciplinary examination of human sexual development and behavior, including reproduction, sexual anatomy, psychosexual development, sexual socialization, values, and various forms of sexual expression. This course will explore human sexuality from biological, cultural, legal, and political perspectives.

**Prerequisite(s):** 24 credits in ISP including ITW-101 and QL

**Offered:** Summer, Every Year

**INHLSC-175 Essentials of Nutrition Science (4 Credits)**

An introduction to basic science concepts including nutrition guidelines, micro and macronutrients, anatomy and physiology of digestion and absorption of nutrients, energy balance, and health and wellness. The course will integrate course content, technology and quantitative reasoning using hands-on investigative activities to interpret and evaluate nutritional needs.

**Offered:** All, Every Year

**INHLSC-310 Food Science (4 Credits)**

This course introduces the principles of food selection, sensory criteria, physical and chemical changes to ingredients and nutrients during food preparation and storage, basic nutrition content related to food, government regulations related to different types of food items, food technology, food preparation methods and allows students to develop professional skills.

**Prerequisite(s):** 24 credits in ISP, including ITW-101 and a QL course

**Offered:** Fall, Every Year

**ISHLSC-101 Health and Wellness (4 Credits)**

An interdisciplinary course exploring the health dimensions of wellness including physical, social, psychological, and environmental aspects. Focus on self-assessment, development of critical thinking and behavior change skills to facilitate personal awareness and well-being.

**Offered:** All, Every Year

**ISHLSC-200 AOD: The Fundamentals (4 Credits)**

An introduction to alcohol and other drugs and biopsychosocial and historical perspectives. Topics include the history and classification of drugs; the physical, cognitive, psychological, and societal aspects of psychoactive substances; levels of use; and addiction liability.

**Offered:** All, Every Year

**ISHLSC-285 Health in Society (4 Credits)**

An introduction to the social determinants that impact health, such as socioeconomic status, education, culture, and health policy. Topics of social justice and ethics will be explored.

**Prerequisite(s):** ITW-101

**Offered:** All, Every Year