OUR MISSION is to provide outstanding academic and professional education in human nutrition, and to conduct basic science and translational research on the role of nutrition in human health.

OUR 12-MONTH, 33 CREDIT MS PROGRAM prepares students for many possible paths in healthcare and other professions. Since the majority of major health issues in the US and globally have a strong nutrition component, our program is useful for a broad range of careers.

The majority of students pursue a career in medicine, dentistry, and public health where they integrate their new and deep knowledge about nutrition into their professions. With our dedicated Career Services Officer, the IHN actively assists students in their further training and career development.

The academic year is divided into three semesters, two, fifteen-week terms where students focus on coursework and begin their thesis projects, and a Summer semester devoted entirely to the thesis research. Throughout the program students are assigned an individual faculty advisor who provides assistance in course selection, thesis topic supervision, and career guidance.

Candidates may select elective courses at the IHN as well as graduate-level courses from other departments at Columbia University.

APPLICANT QUALIFICATIONS and REQUIRED COURSEWORK
Admission is open to students with a bachelor’s degree from an accredited college or university in the US or abroad. Applicants must submit transcripts with a desired GPA that is equal to or higher than 3.3 on a 4.0 scale, and a minimum of two letters of recommendation. Premedical students should check with their undergraduate prehealth advisor to confirm that our prerequisite recommendations are consistent with their pre-med requirements. In addition, applicants must have completed the following:

- General chemistry, one or two semesters
- Organic chemistry, one or two semesters
- Biology, one or two semesters
- Biochemistry semester is suggested but not required
- A graduate level entrance exam (DAT, GRE, MCAT, etc). The desired minimum score for any exam is in the 70% percentile for all sections.

COUNTRIES OF ORIGIN The MS program includes a diverse mix of students from some of the world’s top universities, enrolling 75-80 full-time and part-time students from:

- Canada
- India
- Netherlands
- South Korea
- United Kingdom
- China
- Japan
- Nigeria
- Taiwan
- Ghana
- Lithuania
- Panama
- Thailand
- Mexico
- Greece
- Panama
- Romania
- Turkey
- United States

FACULTY and EDUCATIONAL OUTREACH Faculty and thesis mentors include more than 100 members from twenty-five departments and schools within Columbia University and other institutions, as well as many guest lecturers from the University and other academic and professional settings. All of the IHN core faculty members have PhD and/or MD degrees, are at the cutting edge of their disciplines, and provide extensive training and research opportunities to the MS candidates. The Institute’s worldwide outreach is implemented through conferences, symposia, and other initiatives for health practitioners, educators, and national and international non-profit organizations, to advance knowledge of nutrition’s role in health and disease.

ALUMNI The Institute has over 1,800 alumni worldwide who are advancing nutrition through work in basic science and medical research, medicine, dentistry, public health, the pharmaceutical industry, law, non-profit organizations, the food industry, and journalism.

NEED MORE INFORMATION? nutrition@cumc.columbia.edu
(212) 305-4808
Visit our website at http://www.cumc.columbia.edu/ihn
MS Program Curriculum and Coursework

**REQUIRED COURSEWORK**

**BIOCHEMICAL AND PHYSIOLOGICAL BASES OF NUTRITION I**
Carbohydrate, lipid, protein, and energy metabolism are covered with an emphasis on understanding the integration of metabolic pathways and principles of metabolic regulation.

**CRITICAL READING OF BIOLOGICAL AND CLINICAL LITERATURE**
Current literature is examined with an emphasis on topics not covered in other courses, with the purpose of developing a critical approach to scientific information using student presentations and discussion.

**INTRODUCTION TO EPIDEMIOLOGY FOR NUTRITIONISTS**
Students are introduced to the theory, methodology, and terminology used in epidemiology, using examples related to nutrition and disease from the current scientific literature.

**SUGGESTED ELECTIVE COURSEWORK**

**BIOSTATISTICS: BASIC TO ADVANCED METHODS**
The goal is self-sufficiency in biostats by analyzing real clinical research datasets: begin with Excel for data organization, and our own resource for 2x2 and power analysis; proceed to R for advanced topics (linear and logistics regression, survival analysis by Kaplan - Meier and Cox modeling); discuss the thesis plan for registrants to understand when and how to use different statistical methods.

**BIOCHEMICAL AND PHYSIOLOGICAL BASES OF NUTRITION II**
The roles of vitamins and minerals are covered, helping to understand their sources, biochemistry, functions, and the nutritional standards and guidelines for their intake.

**INTEGRATIVE NUTRITION AND PATHOPHYSIOLOGY**
This course covers the physiological aspects of clinical disorders, including symptoms, risk factors, biological pathology, and clinical management, as well as the role of nutrition in their prevention and treatment.

**THESIS PLANNING AND RESEARCH METHODS I**
Students are assisted in the development of the personal and professional skills needed to become a professional nutrition scientist. Information needed to successfully select a research setting and Master’s Thesis project is provided.

**INTEGRATIVE NUTRITION AND PATHOPHYSIOLOGY**
This course covers the physiological aspects of clinical disorders, including symptoms, risk factors, biological pathology, and clinical management, as well as the role of nutrition in their prevention and treatment.

**THESIS PLANNING AND RESEARCH METHODS II**
Students present their thesis projects to the class and faculty, and critically evaluate the presentations of their peers.

**SPRING ELECTIVE COURSEWORK (at least TWO)**

**BIOSCIENCE RESEARCH**

**PHYSIOLOGY AND NUTRITION THROUGH THE LIFECYCLE**
A focus on how nutrition affects growth and development throughout the lifecycle, with attention to the special needs of each developmental stage.

**PUBLIC HEALTH NUTRITION**
The course focuses on what people eat, what should they eat, factors that influence dietary intake, and how health promotion influences these factors.

**THESIS PLANNING AND RESEARCH METHODS I**
Students are assisted in the development of the personal and professional skills needed to become a professional nutrition scientist. Information needed to successfully select a research setting and Master’s Thesis project is provided.

**17 CREDITS**

**SPRING ELECTIVE COURSEWORK (at least TWO)**

**BIOSTATISTICS: BASIC TO ADVANCED METHODS**
The goal is self-sufficiency in biostats by analyzing real clinical research datasets: begin with Excel for data organization, and our own resource for 2x2 and power analysis; proceed to R for advanced topics (linear and logistics regression, survival analysis by Kaplan - Meier and Cox modeling); discuss the thesis plan for registrants to understand when and how to use different statistical methods.

**CU-WIDE (GRADUATE LEVEL) ELECTIVE**
Students can choose any graduate-level course from any of Columbia’s Schools.

**ESSENTIALS OF NUTRITION COUNSELING AND MEDICAL NUTRITION THERAPY**
The basic tenets of health literacy, psychodynamics, behavioral, and motivational interviewing are covered, along with their application to medical nutrition therapy for nutrition-related conditions.

**NEW! NARRATIVE MEDICINE SEMINARS**
The seminar allows students to reflect upon and write about topics related to health, illness, and care from the perspective of different health professions on these topics.

**OBESITY: ETIOLOGY, PREVENTION AND TREATMENT**
The primary course goals are to 1) provide an understanding of the importance of the current epidemic of obesity and its impact on disease development throughout the lifespan; 2) translate basic science, clinical and public health findings related to obesity towards prevention and treatment in clinical settings; and 3) examine the roles and responsibilities of health care providers in the prevention and treatment of obesity and related co-morbidities.

**NEW! STRUCTURED OBSERVATIONS IN CLINICAL PRACTICE**
This course provides an introduction to critical communication skills necessary to translate scientific knowledge into clinical practice. It also highlights how nutrition is integrated into the medical, behavioral, social and cultural factors that contribute to a patient’s well-being.

**US & INTERNATIONAL NUTRITION POLICY AND PROGRAMS**
This course examines programs and policies that have been developed to improve global public health, and the effects of food, nutrition, and nutritional diseases on the health of societies.

**5+ CREDITS**

**SUMMER**

**MS THESIS RESEARCH**
Ten weeks of full time work (350 hours or more). Any alternative plan must be completed within one year and must be approved by the Program Director.

**3 CREDITS**

**OCTOBER**

**DEGREES CONFERRED**