

Course Bulletin

100869	Prin Of Physiology
Subject: CRSK	Catalog Nbr: 166

101370	Gene Exp In Eukaryotes
Subject: CRSK	Catalog Nbr: 212B

101722	Graduate Pathobiology
Subject: CRSK	Catalog Nbr: 293G

101800	Muscle Physiology
Subject: CRBU	Catalog Nbr: 592

101892	Adv Anatomy/physiology
Subject: CRBU	Catalog Nbr: 701A

102187	Human Physiology
Subject: CRBR	Catalog Nbr: 42A

102313	Exercise Physiology
Subject: CRBU	Catalog Nbr: 731

102358	Prin Of Biochemistry
---------------	-----------------------------

Course Bulletin

Subject:	Catalog Nbr:
CRBU	223

102763	Principles Of Biostatics
Subject:	Catalog Nbr:
CRMD	202

102794	Public Health Politics
Subject:	Catalog Nbr:
CRMD	203

102830	Interm Biostatistics
Subject:	Catalog Nbr:
CRMD	206

102865	Epidemiologic Methods
Subject:	Catalog Nbr:
CRMD	207

102915	Adv Prof Communication Emerson College
Subject:	Catalog Nbr:
CRMD	500

102952	Public Health/care Health Communications
Subject:	Catalog Nbr:
CRMD	503H

102979	Population Dynamics
Subject:	Catalog Nbr:
CRBU	881H

Course Bulletin

--

103167	Communication Theory Emerson College
Subject: CRMD	Catalog Nbr: 520

103291	Emerson College Media Strategies/health
Subject: CRMD	Catalog Nbr: 579

103349	Dir Std:public Relations
Subject: CRMD	Catalog Nbr: 585Q

103423	Writing For Press Emerson College
Subject: CRMD	Catalog Nbr: CS55

107606	Economic Development
Subject: CRFL	Catalog Nbr: E231

122478	Physical Activity, Nutrition, And Health
Subject: NUTR	Catalog Nbr: 0272
2015 SPRG	Primary Jennifer Sacheck jennifer.sacheck@tufts.edu
<p>Inadequate physical activity and a sedentary lifestyle are thought to be important causes of many of the major diseases of developed societies, including coronary artery disease, stroke, hypertension, diabetes, obesity, osteoporosis, and arthritis. There has been an explosion of information over the past two decades on the health benefits of exercise. In addition, exercise and nutrition are closely linked, with each modifying the effects of the other. Athletes, for example, may have markedly increased needs for some nutrients, but not others. Exercise has potent effects on the metabolism of protein, energy, fat, and some micronutrients. In addition, exercise is an important form of oxidative stress, and the ability of nutrients to alter the effect of</p>	

Course Bulletin

exercise is not well understood. Exercise and nutrition together offer an extremely powerful intervention for a variety of problems, including the frailty of aging, the wasting of AIDS, and the obesity that underlies most cases of diabetes and atherosclerosis. This course is designed to give students an understanding of the fundamental interactions between exercise and nutrition, and to offer students an opportunity to examine the application of nutrition to exercise and vice versa. Each lecture will also discuss how these factors are important in disease prevention, and where applicable, treatment.

122782	Globalization, Development And Humanitarianism: Ethics And Personal Transformation
Subject: NUTR	Catalog Nbr: 0279
<p>(Cross-listed as DHP D238 (Fletcher School)). This course challenges students to reflect on the moral and ethical ideas underpinning today's changing global interests and power. As we witness humanitarian crises and failed development efforts, we will consider ethical and moral values that support humanitarian and developmental interventions. We will consider the ethical implications that are inherent in the choice between justice and mercy, freedom and order and truth and loyalty. Students will analyze the moral and ethical underpinnings of ideas that promote new approaches to development and humanitarian action with a personal, academic and institutional perspective. Even as the world is coming closer together in the information age, divisions on the lines of regional, ethnic and religious identities continue to grow more pronounced and stark. This course will encourage students to articulate their personal beliefs and ethical values. As students move to become policy makers and stakeholders it is essential that they are grounded in an understanding of their own moral framework and also appreciate the differences that exist in their midst. Students will explore ideas of minimalist ethics, just wars, realists and liberal arguments around humanitarian and developmental intervention.</p>	

127008	General Nutrition
Subject: NRAK	Catalog Nbr: 0202

127043	Epidemiology: Nutr Profs
Subject: NRAK	Catalog Nbr: 0204

127080	Nutr Biochem I
Subject: NRAK	Catalog Nbr: 0205

Course Bulletin

127118	Statistical Methods
Subject: NRAK	Catalog Nbr: 0207

127151	Mgmt:nutr&health Ngos
Subject: NRAK	Catalog Nbr: 0208

127193	Monitoring & Evaluation
Subject: NRAK	Catalog Nbr: 0210

127213	Food Policy Fundamentals
Subject: NRAK	Catalog Nbr: 0211

127234	Nutrition Policy
Subject: NRAK	Catalog Nbr: 0212

127247	Nutr Comm In Glb Context
Subject: NRAK	Catalog Nbr: 0213

127265	Food Science Fundamental
Subject: NRAK	Catalog Nbr: 0219

Course Bulletin

127285	Global Nutritional Pgms	
	Subject: NRAK	Catalog Nbr: 0227

127313	Dir Study:	
	Subject: NRAK	Catalog Nbr: 0297

127331	Masters Thesis	
	Subject: NRAK	Catalog Nbr: 0300

127368	Nutr Biochem II	
	Subject: NRAK	Catalog Nbr: 0305

127387	Adv Medical Nutr Therapy	
	Subject: NRAK	Catalog Nbr: 0316

128471	Foundations of Nutrition Science	
	Subject: NUTC	Catalog Nbr: 0200
	2015 FALL	Primary Diane McKay diane.mckay@tufts.edu
<p>This course provides an understanding of basic nutrition science, including the principles of diet planning and government standards; the biological functions of the macro- and micronutrients; energy balance, weight control, and physical activity; and the role of nutrition in chronic diseases, nutrition throughout the life cycle, and contemporary nutrition-related issues. Prerequisite: Graduate standing or instructor consent. Copy link into browser to review Fall 2015 Syllabus: https://docs.google.com/document/d/1E3kH1bg3DA30bOJFxmWOGshdBwOZKYFzvgygb3HV2IY/edit?usp=sharing</p>		

128489	Program Development and Delivery	
---------------	---	--

Course Bulletin

Subject:	Catalog Nbr:			
NUTC	0203			
2015 FALL	Primary	Erin Boyd		Erin.Boyd@tufts.edu
<p>This course provides presentations, readings, and exercises relating to the broad range of nutrition interventions utilized in global programs, including: growth monitoring and promotion; nutrition counseling and IEC; supplementary feedings and food-based income transfers; household food security and agricultural-based interventions; micronutrient activities; and breast-feeding. The course covers malnutrition causality, nutrition and structural adjustment, social funds, economic and food aid, active learning capacity and the nutrition transition. Students become versed in program design and appraisal techniques including dynamic models and program constraint assessments, and are responsible for major exercises relating to programs in Asia, Africa and Latin America. Prerequisite: Graduate standing or instructor consent.</p>				

128508	Nutrition Related Consum Marketing			
Subject:	Catalog Nbr:			
NUTC	0205			
2015 SUMR	Primary	Rachel Cheatham		Rachel.Cheatham@tufts.edu
2015 SUMR	Primary	Ashley Reynolds		Ashley.Reynolds@tufts.edu
<p>This course examines the issues of consumer psychology and food choice, and explores the interplay of nutrition and marketing from both the consumer and the marketer's perspectives. The course will examine historical effectiveness of efforts by food companies, health advocacy organizations, and governments aimed at improving nutritional habits. Students will gain an understanding of consumer behavior and approaches to affect positive nutrition-related health outcomes.</p>				

128532	Program Monitoring & Evaluation			
Subject:	Catalog Nbr:			
NUTC	0210			
2015 SUMR	Primary	Marion Min-Barron		Marion.Min-Barron@tufts.edu
2015 SUMR	Primary	Natalie Valpiani		Natalie.Valpiani@tufts.edu
<p>This course provides an introduction to the principles and practices of program monitoring and evaluation, as applied to food security and nutrition-related programs in developing countries. The course content will be imparted through online lectures, case studies, interactive discussion, and assignments that prompt students to grapple with monitoring and evaluation challenges facing ongoing global efforts to combat malnutrition and food insecurity. By the end of the semester, course participants will: be familiar with the strategies and techniques for monitoring and evaluating projects, particularly those related to nutrition and food security; be able to assess the adequacy of monitoring and evaluation proposals and program evaluations designed by others; be exposed to multiple domestic and international examples of monitoring and evaluation systems, both large and small; and gain experience in the design of monitoring and evaluation plans for real programs.</p>				

128568	Theories of Behavior Change & their Application in Nutrition/Public Health Interventions			
Subject:	Catalog Nbr:			

Course Bulletin

NUTC	0211			
2015 SPRG	Primary	Emily Vikre	No Email on file.	
<p>This course explores the theories of behavior change most commonly used in nutrition and public health. Includes an examination of several individual-based, social-based, organization-based and eco-social theories, including the Health Belief Model, the Theory of Planned Behavior, the Trans-theoretical Model, Decision-Making, Social Support, Social Learning Theory, and Diffusion of Innovations. Knowledge of these theories will help inform the design of research and program interventions based on psycho-biological, social, cultural and organizational frameworks. The course emphasizes an understanding of core theory concepts and issues in measurement.</p>				

128591	Social Media For Nutrition Audiences		
Subject:	Catalog Nbr:		
NUTC	0220		

128622	Pd Theories Methods Proc	
Subject:	Catalog Nbr:	
NUTC	0318	

128667	Theories Of Pd	
Subject:	Catalog Nbr:	
NUTC	0319	

128687	Positive Deviance In Practice	
Subject:	Catalog Nbr:	
NUTC	0320	

128785	Directed Study/undergrad	
Subject:	Catalog Nbr:	
NUTR	0102	

128948	Directed Study	
Subject:	Catalog Nbr:	
NUTR	0297	

Course Bulletin

2015 FALL	Primary	Jeanne Goldberg	jeanne.goldberg@tufts.edu
2015 FALL	Primary	Susan Roberts	susan.roberts@tufts.edu
2015 FALL	Primary	Miriam Nelson	miriam.nelson@tufts.edu
2015 FALL	Primary	Ligi Paul Pottenplackel	Ligi.Paul_Pottenplackel@tufts.edu
2015 FALL	Primary	William Masters	William.Masters@tufts.edu
2015 SPRG	Primary	Sara Folta	sara.folta@tufts.edu
2015 SPRG	Primary	Martin Obin	martin.obin@tufts.edu
2015 SPRG	Primary	Gail Rogers	gail.rogers@tufts.edu
2015 SPRG	Primary	Hugh Joseph	hugh.joseph@tufts.edu
2015 SPRG	Primary	Caren Smith	Caren.Smith@tufts.edu
2015 SPRG	Primary	Daniel Maxwell	Daniel.Maxwell@tufts.edu
2015 SPRG	Primary	Timothy Griffin	Timothy.Griffin@tufts.edu
2015 SPRG	Primary	Sean Cash	Sean.Cash@tufts.edu

Directed Study is a mechanism for a student to receive academic credit for work completed under the tutelage of a faculty member. This is generally done on a one-to-one basis with the student taking major responsibility for his/her progress. Research conducted in a laboratory during a Directed Study project can be either problem-oriented or technique-based. Directed Studies must be supervised by Friedman School faculty. Students must register for a Directed Study using the online form.

129095	Special Tps:study Abroad Nutrition		
Subject:	Catalog Nbr:		
NUTR	0196		

129117	Special Tps:study Abroad Nutrition		
Subject:	Catalog Nbr:		
NUTR	0197		

129335	Principles of Nutrition Science		
Subject:	Catalog Nbr:		
NUTR	0202		
2015 FALL	Primary	Diane McKay	diane.mckay@tufts.edu

This course presents the fundamental scientific principles of human nutrition. Students will become familiar with food sources; recommended intake levels; biochemical role; mode of absorption, transport, excretion; deficiency/toxicity symptoms, and potential major public health problems for each macro- and micronutrient. The student goals for this course are: 1) to describe the components of a healthy diet, 2) understand the major nutrition problems that affect individuals and populations from conception and throughout the life cycle, and 3) understand the scientific basis for nutritional recommendations brought before the scientific and lay communities. Prerequisites: Students are required to have taken a one semester college-level course in either human biology, chemistry, or physiology (preferred).

Course Bulletin

Copy link into browser to review Fall 2015 Syllabus:

<https://docs.google.com/document/d/1JHovD3UAMsMn9rohJDphi2dZrCb7-zB033U34sgWMAQ/edit?usp=sharing>.

129416	Fundamentals Of Public Policy			
Subject: NUTR		Catalog Nbr: 0203		
2015 FALL		Primary	Patrick Webb	patrick.webb@tufts.edu
2015 FALL		Primary	Eileen Kennedy	Eileen.Kennedy@tufts.edu
<p>Nutrition 203 is a course that will allow students at the Friedman School to become familiar with policy processes (domestic and international), typologies of policy initiatives (laws, regulations, program interventions, legal restrictions and systems, institutional mandates), and to be able to critically analyze and discuss how policy and science interact with regard to food and nutrition. The class will cover: a) how science influences the policy agenda, and how policy debates influence the scientific agenda; b) the scientific underpinnings of food and nutrition policies; c) how empirical findings in scientific research and operational programming make their way into policy and law; d) debates and controversies in US and international nutrition; e) the range of options for intervention that exist (to improve nutrition), and those that are used; f) how do we know what works best and what the alternatives might be?; g) approaches to problem assessment and measurement; h) success stories in the nutrition pantheon; i) constraints to success (what makes or breaks major program successes), and j) key institutions and organizations involved in nutrition policy and programming in the US and around the world.</p>				

129475	Principles Of Epidemiology			
Subject: NUTR		Catalog Nbr: 0204		
2015 FALL		Primary	Mark Woodin	mark.woodin@tufts.edu
<p>(Cross-listed as CEE 154.) Methods that quantify disease processes in human populations. Topics include study design, sources of inaccuracy in experimental and observational studies, the methodology of data collection, and an introduction to the statistical evaluation of epidemiological data. Fall.</p>				

129491	Communicating Health Information To Diverse Audiences, Part A			
Subject: NUTR		Catalog Nbr: 0205		
2015 SPRG		Primary	Patrick Skerrett	Patrick.Skerrett@tufts.edu
<p>The objective of this course is to learn to write articles and on the editing process; the other will focus on pragmatic issues such as choosing topics, judging sources, elements of successful writings, and how to "break in" to the popular press. This course was formerly listed as NUTR 201A. Prerequisites: NUTR 220, graduate standing or instructor consent. NOTE: 10-week course; enrollment limited to 12 students. Enrollment priority is given to Nutrition Communication program students. Prerequisite may not be taken concurrently with NUTR 205.</p>				

Course Bulletin

129583	Statistical Methods For Nutrition Research (policy)			
Subject:	Catalog Nbr:			
NUTR	0207			
2015 FALL	Primary	Sean Cash		Sean.Cash@tufts.edu
Part one of a one-year, two-semester course covering descriptive statistics, graphical displays, confidence intervals, hypothesis testing, t test, chi-square test, nonparametric tests, multiple linear regression, multiple logistic regression, experimental design, multi-factor and multiple comparisons procedures. Students will learn how to use Stata statistical analysis software. This course was formerly listed as NUTR 209A-02.				

129603	Human Physiology			
Subject:	Catalog Nbr:			
NUTR	0208			
2015 SPRG	Primary	Paul Leavis		paul.leavis@tufts.edu
This course meets the physiology requirement for students in the following programs: Human Nutrition, Nutritional Epidemiology, Cell and Molecular Nutrition. This course will cover the functions of mammalian organisms as we understand them at various levels of organization - organ system, organ, cellular and subcellular levels. Our goal is to provide a working knowledge of the fundamental properties and regulation of these systems so that the student can understand and relate this material to that learned in other basic science courses with particular emphasis on those related to nutrition.				

129664	Statistical Methods For Nutrition Research (science)			
Subject:	Catalog Nbr:			
NUTR	0209			
The first of a two course sequence covering study design, descriptive statistics, graphical displays, confidence intervals, hypothesis testing, Student's t test, chi-square test, nonparametric tests, sample size calculations, multiple linear regression, multiple logistic regression, multi-factor experimental design, repeated measures, and multiple comparisons procedures. NUTR 209 generally covers topics through the start of linear regression. Students will make extensive use of SAS for Windows. NOTE: Students cannot receive credit for both NUTR 209 Statistical Methods in Nutrition Research (Science) and its second semester counterpart NUTR 207 Regression Analysis for Nutrition Research (Policy). This course was formerly listed as NUTR 209A-01.				

129679	Survey Research Nutrition			
Subject:	Catalog Nbr:			
NUTR	0210			
2015 SPRG	Primary	Beatrice Rogers		beatrice.rogers@tufts.edu
A methods course focusing on field research in nutrition. How to identify policy-relevant issues, define hypotheses, and select and combine appropriate methods drawn from nutrition, epidemiology, anthropology, economics, psychology, sociology, education, and political science. How to develop research designs and samples, as well as how to analyze plans, and to construct and pretest the types of instruments commonly used in nutrition research and evaluation. Interviewer training, quality control, site operations, and database				

Course Bulletin

management.

129766	Theories of Behavior Change and Their Application in Nutrition and Public Health Interventions			
Subject:	Catalog Nbr:			
NUTR	0211			
2015 FALL	Primary	Sara Folta	sara.folta@tufts.edu	
<p>What motivates people to adopt healthier food and lifestyle choices? This course will explore various theoretical perspectives on nutrition and health-related behavior change. It will include an examination of several individual-based, social-based, organization-based and eco-social theories, including the Health Belief Model, the Theory of Planned Behavior, the Transtheoretical Model, Decision-Making, Social Support, Social Learning Theory, and Diffusion of Innovations. Knowledge of these theories will help inform the design of research and program interventions based on psycho-biological, social, cultural and organizational frameworks. The course emphasizes an understanding of core theory concepts and issues in measurement. In-class workshops will allow for direct application of the theories to students' current research and program intervention interests. The course will provide concepts and tools that can apply not only to the students' own research interests, but also to other courses, such as those focused on nutrition interventions, patient education, persuasive communication, social marketing and mass media. This course should be of great value to MS students in the Nutrition Communication, Nutrition Epidemiology, Nutrition Intervention Programs and to students in the MS/Dietetic Internship programs. Enrollment limited to 15 students. Priority enrollment is given to: 1) Nutrition Communication students (for whom the course is a requirement); 2) Second-year FPAN students, Nutrition Interventions specialization; 3) Second-year Friedman students in any program doing a Nutrition Communication minor; 4) First-year FPAN students, Nutrition Interventions specialization; 5) First-year Friedman students in any program doing a Nutrition Communication minor; 6) Any other Friedman students; 7) MPH students; 8) Any other Tufts students (Graduate standing or instructor consent); 9) Any other students from Boston Consortium Schools.</p>				

129922	Statistical Methods For Health Care Professionals			
Subject:		Catalog Nbr:		
NUTR		0214		
2015 SPRG		Primary	Robert Houser	robert.houser@tufts.edu
In this course students critically evaluate, compare, interpret, judge, summarize and explain statistical results published in research articles in health and nutrition journals that are influencing nutrition science, research, policy, and clinical practice. Students will also develop an intermediate level ability to analyzing research data with Stata statistical software.				

129943	Fundamentals Of U.S. Agriculture			
Subject: NUTR		Catalog Nbr: 0215		
2015 FALL		Primary	Timothy Griffin	Timothy.Griffin@tufts.edu
(Cross-listed as UEP0223) This course covers the major social, institutional and human aspects of the American agricultural system, both as it exists today as well as its historical development. After consideration				

Course Bulletin

of agricultural systems in general and of the values that underlie different concepts of agriculture, it covers some of the key historical forces that have made American agriculture what it is today, and the major role of the federal government, both past and present. The next part of the course deals with the economics of American agriculture as a whole and its large-scale structure, followed by an analysis of farming on the microlevel, emphasizing types of farms and farm-scale production economics. This course was formerly listed as NUTR 223.

129998	Management, Planning, And Control Of Nutrition And Health Programs And Organizations			
Subject:	Catalog Nbr:			
NUTR	0216			
2015 SPRG	Primary	David Hastings	david.hastings@tufts.edu	
Key management concepts and principles for managing nutrition and health programs and organizations will be addressed to equip students to function as program directors and project managers). Case studies and readings will be used to convey a practical understanding of how to manage and coordinate business functions to achieve the goals and objectives of the organization. This course will deal with for-profit and nonprofit organizations. Topics will include business and project planning, management control systems, financial management, budgeting, performance measurement, pricing and marketing of services, operations, management, cost analysis, human resource management, and the development of management information systems. The course is designed to provide practical tools in areas we believe students need to acquire skills. This course was formerly listed as NUTR 225.				

130033	Monitoring and Evaluation of Nutrition and Food Security Projects			
Subject: NUTR		Catalog Nbr: 0217		
2015 SPRG		Primary	Jennifer Coates	jennifer.coates@tufts.edu
Introduction to the principles and practice of program monitoring and evaluation with an emphasis on nutrition and nutrition-related programs in developing countries. By reviewing relevant literature and utilizing case studies in the areas of nutrition, primary health, agriculture, and other fields, students will garner basic literacy of the language and tools of evaluation. Focus on theory and practice of conducting program evaluation. Emphasis on participatory nature of the seminar: students will shape the curriculum, design assignments, and be expected to bring forth their personal experiences, opinions, and questions to the subject matter at hand.				

130080	Communication Strategies In Health Promotions				
Subject:		Catalog Nbr:			
NUTR		0218			
2015 SPRG		Primary	Jeanne Goldberg	jeanne.goldberg@tufts.edu	
A survey of communications strategies in health promotion. This course will provide students with the ability to decide when a health communication initiative is appropriate; to develop health communications programs based on appropriate theoretical foundations; and to select and plan evaluation strategies appropriate for the particular intervention. Spring.					

Course Bulletin

130123	Fundamentals Of Food Science		
	Subject:	Catalog Nbr:	
	NUTR	0219	
<p>This course will provide students a broad overview of certain aspects of both the U.S. and worldwide food supply. This course is intended to provide students with an understanding of : 1) the basic groups of foods in the food supply and their nutrient profiles; 2) the effects of harvesting, processing and storage; and 3) the important issues affecting food safety. Requirement for all students in the Food Policy and Applied Nutrition (FPAN), Agriculture, Food, and Environment (AFE), and Nutrition Communication programs who entered before the Fall of 2006. (0.5 credits)</p>			

130290	The Global Food Business			
Subject: NUTR		Catalog Nbr: 0221		
2015 SPRG		Primary	James Tillotson	james.tillotson@tufts.edu
<p>(Cross-listed as EIB B280 (Fletcher School)). The purpose of this course is to introduce the student to the field of international food and agribusiness. Today, international trade in agricultural commodities and foods is a major segment of the world's business. This business continues to grow yearly, motivated by new and potential international trade agreements (GATT, NAFTA), expansion by both established and new multinational companies, and export policies by countries seeking new markets for their growing food and agricultural production. The focus of this course will be to develop in each student a conceptual knowledge of the analytical skills in administration, marketing, business strategy, research, governmental policies and technology that international food business requires today. The course also attempts to analyze the global food business from a transnational perspective, rather than any single nationalistic viewpoint of food and agribusiness. It is designed to meet the requirements of students aiming to enter the international food business world, as well as for students who in their professional careers (e.g., government, legal) will deal with this important sector of international business. This course was formerly listed as NUTR 245.</p>				

130334	Gender, Culture and Conflict in Complex Humanitarian Emergencies			
Subject: NUTR		Catalog Nbr: 0222		
2015 FALL		Primary	Dyan Mazurana	Dyan.Mazurana@tufts.edu
2015 FALL		Secondary	Elizabeth Stites	elizabeth.stites@tufts.edu
<p>This course examines situations of armed conflict, civilian experiences of these crises, and the international and national humanitarian and military responses to these situations from a gender perspective and highlights the policy and program implications that this perspective presents. Topics covered include gender analyses of current trends in armed conflict and terrorism, and of the links among war economies, globalization and armed conflict; the manipulation of gender roles to fuel war and violence; gender and livelihoods in the context of crises; masculinities in conflict; sexual and gender-based violations; women's rights in international humanitarian and human rights law during armed conflict; peacekeeping operations; peacebuilding; and reconstruction. Case studies are drawn from recent and current armed conflicts worldwide. This course is cross-listed with The Fletcher School (DHP D232). Prerequisites: Graduate standing or instructor consent.</p>				

Course Bulletin

130388	Seminar In Humanitarian Issues			
Subject:	Catalog Nbr:			
NUTR	0223			
2015 FALL	Primary	Daniel Maxwell		Daniel.Maxwell@tufts.edu
<p>Open for credit only to Master of Arts in Humanitarian Assistance (MAHA) students. This seminar will explore in depth key issues in humanitarian assistance, for example, humanitarian law, ethics, psycho-social interventions, the role of the military, program and agency management, and fund-raising. A hands-on course with an opportunity to discuss in depth much of the theory and academic literature of prerequisite courses. This course was formerly listed as NUTR 273.</p>				

130448	Community Food Planning And Programs			
Subject:	Catalog Nbr:			
NUTR	0224			
2014 FALL	Primary	Hugh Joseph		hugh.joseph@tufts.edu
<p>Key features of the course include field trips to community / local food and farm programs, guest presenters, and field-based planning projects with area non-profits, public sector agencies, or businesses. This course will cover (domestic) food and agriculture programs that focus on or operate at the community or regional levels. Such initiatives promote local/regional agriculture and food chain businesses that process, market, and use local or regional food products. In tandem, public sector and NGO initiatives now sponsor programs and policies with a community or urban food system agenda. The focus will be on more complex initiatives such as farm-to-institution projects, regional wholesaling initiatives, and food policy councils. A major course objective is to provide practical skills and tools for design, strategic planning, and implementation of these programs, including assessments, research, policy components, and funding. We will also provide contextual analyses and critical perspectives of community-based strategies as alternative food systems models.</p>				

130500	Introduction to Modern Biology Techniques			
Subject:	Catalog Nbr:			
NUTR	0225			
2015 FALL	Primary	Martin Obin		martin.obin@tufts.edu
<p>This intensive, 5-week course is designed to (1) familiarize basic science track (BMN, NEPI) students with the conceptual approaches and techniques used to study nutrition at the molecular, cell, tissue, whole organism and population levels and (2) introduce new students to the nutrition research and science culture of the HNRCA. Techniques covered include but are not limited to chromatography, mass spectrometry, cell culture and transfection, electrophoresis, immunoassays, PCR/RT-PCR, next generation sequencing (NGS), fluorescence cell sorting, microscopy, imaging techniques, bioinformatics, systems biology, data science (Big Data), and bioengineering. Web-based reading and assignments will form the basis of a weekly quiz given at the beginning of each class. Discussion of the quiz will occupy the bulk of actual class time, with student participation and creativity contributing significantly to student's grade. This is a required course for all Biochemical and Molecular Nutrition (BMN) degree program students. The grading basis for this course is Satisfactory/Unsatisfactory. Prerequisites: Graduate standing or instructor consent.</p>				

Course Bulletin

130524	Health Claims and the Food Industry			
Subject: NUTR		Catalog Nbr: 0226		
2015 SPRG		Primary	James Tillotson	james.tillotson@tufts.edu
<p>This course examines the U.S. food policies governing the use of diet and health information in commercial communications. In the mid-1980s, for the first time in history, the food industry began to use health claims in food advertising and labeling. This proved to be a highly effective marketing method for the food industry. However, industry use of health claims product promotion created public controversy and policies--a comprehensive new labeling law as well as many new FDA, USDA, and FTC regulations--governing food advertising and labeling that use nutritional and medical information. The object of this course is to review current food policies governing health claims and the regulatory regime controlling their use in commercial communications. Spring.</p>				

130571	International Nutrition Programs			
Subject: NUTR		Catalog Nbr: 0227		
2015 SPRG		Primary	Erin Boyd	Erin.Boyd@tufts.edu
<p>This intensive course provides presentations, readings, and exercises relating to the broad range of nutrition interventions utilized in international programs: growth monitoring and promotion, nutrition counseling and IEC, supplementary feedings and food-based income transfers, household food security and agricultural-based interventions, micronutrient activities, and breast-feeding. The course also covers malnutrition causality, nutrition and structural adjustment, social funds, economic and food aid, active learning capacity and the nutrition transition. Finally students become well versed in program design and appraisal techniques including dynamic models and program constraint assessments, and are responsible for major exercises relating to existing programs in Asia, Africa and Latin America. This course was formerly listed as NUTR 204.</p>				

130618	Community and Public Health Nutrition			
Subject:	Catalog Nbr:			
NUTR	0228			
2015 FALL	Primary	Virginia Chomitz	Virginia.Chomitz@tufts.edu	
<p>This intensive course provides presentations, readings and activities related to the broad range of community-based nutrition research, programs and policies in the U.S. today. Public health efforts in communities are implemented in many different types of settings, including community non-profit agencies, worksites, health centers, clinics, hospitals, schools, churches, supermarkets, recreational and sports centers, councils on aging/senior centers, and emergency feeding sites. Students will become familiar with community-based research and programs focused solely on nutrition as well as those in which nutrition is one component. Students will engage in skill-building and participatory activities, as well be introduced to case examples of creative and innovative approaches to community nutrition. Through field visits and guest speakers, students will have an opportunity to dialogue with public health experts and practitioners who can influence community nutrition practice. Upon completion of this course, the students will have a toolbox of skills to utilize and apply in a wide range of practice settings. Enrollment limited to 23 students. Prerequisites:</p>				

Course Bulletin

NUTR 0202: Principles of Nutrition Science or equivalent. Graduate standing or instructor consent.

130716	Humanitarian Action in Complex Emergencies			
Subject:	Catalog Nbr:			
NUTR	0229			
2015 FALL	Primary	Daniel Maxwell	Daniel.Maxwell@tufts.edu	
<p>The intent of the class is to introduce students to a broad range of research and writing that constitutes our knowledge on humanitarian action in complex emergencies, and to give the student the skills to read research and keep abreast of a rapidly evolving field. There is a strong emphasis on the practical application of this knowledge. The course simultaneously treats humanitarian action as a phenomenon to be understood and as a practice that urgently needs to be improved.</p>				
<p>This multi-disciplinary course will cover a broad range of subjects, and has a number of objectives. By the end of the course, students will be able to: Outline historical perspectives on humanitarian action; Describe and define the application of international humanitarian law, principles, and codes of conduct to humanitarian action in complex emergencies, and outline major debates surrounding these frameworks; Utilize the main analytical frameworks for addressing the protection of life, livelihoods, rights and safety of people caught in complex emergencies; Critically and quickly read, interpret and apply research on humanitarian action; Analyze the political economy of conflict and humanitarian assistance; Discuss the ethical and practical implications of incorporating human rights in humanitarian action; Utilize methodologies for improving the quality, effectiveness and accountability of humanitarian action; and Describe the evolving nature of conflict, crisis, and the architecture of the humanitarian system. This course is cross-listed with the The Fletcher School (DHP D230). Prerequisites: Graduate standing or instructor consent.</p>				

130855	International Ngo's: Ethics And Management Practice		
Subject: NUTR		Catalog Nbr: 0230	
<p>The course first examines the role and relevance of the non-governmental sector with a view to understanding the concepts underpinning NGO management, accountability and role in society. The course will then focus on a number of key issues essential for the effective running of NGOs. The course will end with an exploration of Southern NGOs and their relationship with the North and the future of international NGOs. This course will introduce students to such essential skills such as strategic planning, advocacy, the use of the press, fundraising, budgets and reading financial statements. It will also explore key questions including the role NGOs play in society and in international development and how and whether they are different from other institutions in society. This course focuses on key conceptual questions that are essential to understanding NGOs and on practical skills and tools needed for managing them. The course first examines the role and relevance of the non-governmental sector with a view to understanding the concepts underpinning NGO management, accountability and role in society. The course will then focus on a number of key issues essential for the effective running of NGOs. The course will end with an exploration of Southern NGOs and their relationship with the North and the future of international NGOs. This course will introduce students to such essential skills such as strategic planning, advocacy, the use of the press, fundraising, budgets and reading financial statements. It will also explore key questions including the role NGOs play in society and in international development and how and whether they</p>			

Course Bulletin

are different from other institutions in society. This course focuses on key conceptual questions that are essential to understanding NGOs and on practical skills and tools needed for managing them.

130915	Fundamentals Of GIS			
Subject:		Catalog Nbr:		
NUTR		0231		
2015 FALL		Primary	Paul Cote	Paul.Cote@tufts.edu
Many problems in agriculture, food and nutrition are inherently geographic in nature. For example, livestock production is increasingly concentrated in large feeding operations, leading to new spatial patterns of water and air pollution or foodborne illness. Spatial clustering is equally important for food consumption, nutrition and public health, as in hunger hotspots, food deserts and disease corridors. This course will equip students with the skills needed to capture, analyze and communicate spatial data in geographic information systems (GIS), using a variety of examples from agriculture, food and nutrition.				

130952	Nutrition Epidemiology Journal Club		
	Subject:	Catalog Nbr:	
	NUTR	0232	
The principal goals of the nutrition epidemiology journal club are 1) to enhance graduate students' understanding of the field of nutrition epidemiology and 2) to provide practice reviewing and critiquing research studies. In weekly sessions, the students will prepare a peer-reviewed or original article for class discussion that reinforces the principles of study design as they apply to nutritional epidemiology. This course will also help students to develop their peer review skills and thus become critical reviewers of epidemiologic literature.			

131013	Agricultural Science And Policy I			
Subject:		Catalog Nbr:		
NUTR		0233		
2015 SPRG	Primary	Timothy Griffin	Timothy.Griffin@tufts.edu	
2015 SPRG	Secondary	Christian Peters	Christian.Peters@tufts.edu	
First part of a two-semester sequence required of AFE students. This course covers the major biological, chemical and physical components of agricultural systems. Each is discussed from the viewpoints of both the underlying natural processes and principles, and their significance for major agricultural, food safety, and environmental policy issues in the US today. In the first semester, the topics covered are soils, water, nutrients, and genetic resources.				

131043	Junior Clinical Rotations			
Subject: NUTR		Catalog Nbr: 0235		
2015 SPRG		Primary	Kelly Kane	Kelly.Kane@tufts.edu
Required of junior standing students enrolled in the Combined Dietetic Internship/Masters Degree program.				

Course Bulletin

Grading is Satisfactory/Unsatisfactory.

131317	Practicum In Bioresearch Techniques			
Subject:		Catalog Nbr:		
NUTR		0236		
2015 FALL		Primary	Martin Obin	martin.obin@tufts.edu
<p>Biochemical and Molecular Nutrition students must enroll in one practicum in bioresearch techniques. Students who anticipate a career in basic nutritional sciences require extensive laboratory training. Practicums in bioresearch techniques, established as a single, 1.0 credit course, will provide students with an understanding of critical experimental evaluation as well as hands-on experience in essential techniques of modern biology. In the practicum, students will answer a specific biologic question through experimentation. Faculty in participating laboratories will be responsible for providing an overview of the biologic interest of the laboratory, overseeing the development of a specific, defined project, teaching the theory of specific techniques to be employed, and training the students in the application of these techniques. Students will be evaluated through a written report and oral presentation in a laboratory meeting-type setting. Formerly listed as NUTR 260A-D.</p>				

131352	Economics Of Food Policy Analysis			
Subject:	Catalog Nbr:			
NUTR	0238			
2015 SPRG	Primary	William Masters	William.Masters@tufts.edu	
<p>This course equips students with the principles used in economics for food policy analysis. We use the graphical methods taught in standard, one-semester courses on the principles of economics, but our motivation, examples and applications are focused on food and nutrition problems in the United States and around the world. Course objectives are to help students explain, predict and evaluate the social outcomes of individual choices using economics principles. Students gain familiarity with the data sources and analytical methods needed to: (1) explain and predict consumption, production and trade in agriculture and food markets; (2) evaluate the social welfare consequences of market failure, collective action and government policies including regulation, taxation and enforcement of property rights in agriculture and food markets; (3) measure poverty and inequality in income, wealth, nutrition and health, as influenced by changes in markets and policies; and (4) describe macroeconomic relationships, fluctuations and trends in incomes, employment, economic growth and development.</p>				

131383	Emerging Technologies And Nutrition Communication		
	Subject:	Catalog Nbr:	
	NUTR	0239	
The course begins with an overview of the role of technology in nutrition communication through a grounding in core concepts and a survey of technology in the field of health and nutrition communication. It then provides an orientation to three specific uses of Internet-based communication technology (dissemination, collaboration, and knowledge) through hands-on opportunities that encourage students to use and evaluate specific tools and their appropriateness to various nutrition communication contexts. Throughout the course, students work on a group that utilizes one or more technologies covered.			

Course Bulletin

131447	Nutrition Science Journal Club			
Subject: NUTR		Catalog Nbr: 0240		
2015 FALL		Primary	Paul Jacques	paul.jacques@tufts.edu
2015 FALL		Primary	Jeffrey Blumberg	jeffrey.blumberg@tufts.edu
<p>The principal goals of this student-run Nutrition Science Journal Club are to: (a) enhance graduate students' understanding of the current state of biochemical and molecular nutrition and (b) provide experience in reviewing and critiquing research articles. In alternate week sessions, students will critically evaluate peer-reviewed articles for class discussion that reinforce the principles of various research approaches (including in vitro experiments, animal models, observational studies, clinical trials) and analytical methods. This course will also help students to develop their evaluative skills and presentation performance. All BMN & NEPI MS and PhD students are encouraged to take this course within the first two years of matriculation to the Friedman School. This will be an intellectually stimulating course that will focus on recent findings in the field. In addition to the faculty advisor for this course, other faculty will be encouraged to attend to help facilitate discussions; for each session, faculty with expertise in a topic to be discussed during that class will be invited to participate. This approach also has the benefit of allowing students in their first and second year of their program to meet and interact with a variety of Friedman faculty. The primary format of this course will be student-selected and -led presentations of recent publications in the biochemical and molecular nutrition literature. The course covers two semesters, meeting every two weeks. During the year, all participating students will be required to give at least one PowerPoint presentation, and submit to the class a one-page summary that addresses the study aims, methods and results, and provides a critical assessment of the article. Presentation dates will be selected at the beginning of the semester. This course will also include two introductory faculty-led lectures on: (a) developing the skills and knowledge essential to understanding and critiquing research reports and (b) effectively communicating the relevant supporting material, results, and conclusions of primary research reports.</p>				

131468	Food for All: Ecology, Biotechnology & Sustainability		
Subject: NUTR		Catalog Nbr: 0241	
<p>With the human population expected to exceed 9 billion by 2050, how will we meet the increasing demand for food in an ecologically sustainable way? Historically, rapid increases in yield have been a result of advances in three main technologies:</p> <ul style="list-style-type: none">(1) genetic improvement(2) use of synthetic pesticides and fertilizers(3) expanded irrigation. <p>Each of these technological advances, however, has limitations or has led to significant environmental degradation. There is an urgent need for new approaches to food production without destroying the environment.</p> <p>In this interdisciplinary course, we will examine the pros and cons of two divergent approaches to meeting this food demand: organic farming and genetic engineering. Using contrasting crops grown in developing and industrialized countries as case studies, we will evaluate:</p>			

Course Bulletin

(1) how ecological knowledge makes food production more sustainable
 (2) what existing and emerging approaches can, in the face of climate change, contribute to a reliable supply of nutritious food
 (3) the political and economic drivers that shape who has access to these technologies.
 We will also explore stakeholder-specific perspectives (growers, advocacy groups, industry, governmental agencies), as well as develop important communication skills for negotiating these different perspectives.

132234	Summer Internship
Subject: NUTR	Catalog Nbr: 0298
Please see Departmental Website for detailed course description.	

132248	Nutrition In The Life Cycle
Subject: NUTR	Catalog Nbr: 0301
2015 SPRG	Primary Jennifer Truong Jennifer.Truong@tufts.edu
This course covers nutrition issues from preconception throughout life. It considers factors that affect growth and development, and the aging process. Among these are food insecurity, environmental factors, nutrition and disease interactions, congenital abnormalities, and inborn errors of metabolism. This course was formerly listed as NUTR 251.	

132280	Risk And Disaster Management
Subject: NUTR	Catalog Nbr: 0302
(Cross-listed as DHP D233 (Fletcher). This course (requiring advance reading and extensive participation in discussion) serves as a bridge between classes on nutrition in a developmental context and those focused on relief in complex emergencies. Manifestations of household and national vulnerability differ in these contexts, but only by a matter of degrees. Risks of individual nutrition failure are related to risks of household food security, which in turn relate to risks inherent in the physical, economic, cultural and political environment that is the backdrop to household behavior. The conditions that determine food and nutritional stresses persist in countries undergoing economic transformation and political unrest, but also in those ill equipped to cope with the stresses of globalization, increasing poverty, and declining public sector responsibility. Much international work involves being able to assess the potential risks and returns of alternative development strategies in such diverse contexts. This course was formerly listed as NUTR 231.	

132292	Determinants Of U.S. Food Policy
Subject: NUTR	Catalog Nbr: 0303
2015 FALL	Primary Parke Wilde Parke.Wilde@tufts.edu
Focuses on government food-related programs from an economic and political perspective. Reviews the	

Course Bulletin

evolution of a range of policies and programs, analyzing their effects on the U.S. economy and on household consumption and the farm economy, as well as on food consumption at the national, household, and individual level. Existing policies and programs are related to the political and economic environment and to changing food consumption patterns in American society. Food assistance programs (e.g., Food Stamps), nutrition programs, food supply and agricultural price policies, and consumer protection and information are considered. This course was formerly listed as NUTR 216.

132320		Nutrition, Food Security, and Development			
Subject:		Catalog Nbr:			
NUTR		0304			
2015 FALL		Primary	Jennifer Coates	jennifer.coates@tufts.edu	
<p>This course encourages critical, evidence-driven analysis of effective government policy responses to food security and nutrition challenges in low-income countries. Through lecture, discussion, case studies, and secondary data analysis, students will be able to: discuss the range of policy levers that are used to enact national food security policy in developing countries; describe evidence of the effectiveness of these policies and programs in improving food security, poverty, and nutrition in different contexts; analyze key sources of food and socio-economic data to understand and inform policy-relevant decisions; and produce reasoned and critical writing to influence critical policy debates. Prerequisites: NUTR 203: Fundamentals of Public Policy and NUTR 238: Economics of Food Policy Analysis, or instructor consent. NOTE: Prerequisites may not be taken concurrently with NUTR 304.</p>					

132334		Nutritional Epidemiology			
Subject:		Catalog Nbr:			
NUTR		0305			
2015 FALL		Primary	Fang Fang Zhang	Fang_Fang.Zhang@tufts.edu	
<p>This course is designed for graduate students at either the Master's or Ph.D. level, who are interested in conducting or better interpreting epidemiologic studies relating diet and nutrition to health and disease. There is an increasing awareness that various aspects of diet and nutrition may be important contributing factors in chronic disease. There are many important problems, however, in the implementation and interpretation of nutritional epidemiologic studies. The purpose of this course is to examine epidemiologic methodology in relation to nutritional measures, and to review the current state of knowledge regarding diet and other nutritional indicators as etiologic factors in disease. This course is designed to enable students to better conduct nutritional epidemiologic research and/or to better interpret the scientific literature in which diet or other nutritional indicators are factors under study. This course was formerly listed as NUTR 213B.</p>					

132349		Communicating Health Information To Diverse Audiences, Part B			
Subject:		Catalog Nbr:			
NUTR		0306			
2015 FALL		Primary	Laurie Larusso	Laurie.Larusso@tufts.edu	
A review and analysis of how nutrition and health issues are presented by the media. This course will reinforce concrete journalism skills and an understanding of the values and practices required of a competent and thoughtful writer and is structured around class discussions, selected readings, and writing and editing					

Course Bulletin

assignments. Classroom discussions and assignments will also focus on how to report controversial issues in nutrition and health. This course was formerly listed as NUTR 201B. Prerequisite: NUTR 220 or instructor consent. Enrollment priority is given to Nutrition Communication degree program students. NOTE: Prerequisite may not be taken concurrently with NUTR 306.

132363	Regression Analysis For Nutrition Policy			
Subject:		Catalog Nbr:		
NUTR		0307		
2015 SPRG		Primary	Parke Wilde	Parke.Wilde@tufts.edu
Part two of a one-year, two-semester course sequence in statistics. This course is intended for students whose main focus is non-experimental or survey-based research. The course covers non-experimental research design, simple linear regression, multiple regression, analysis of variance, non-linear functional forms, heteroskedasticity, complex survey designs, and real-world statistical applications in nutrition science and policy. Students will make extensive use of Stata for Windows.NOTE: Students cannot receive credit for both NUTR 307 and its second semester counterpart NUTR 309.				

132377	Nutrition In Complex Emergencies			
Subject: NUTR		Catalog Nbr: 0308		
2015 SPRG		Primary	Erin Boyd	Erin.Boyd@tufts.edu
(Cross-listed as DHP D237 (Fletcher School). Required for students enrolled in the Master of Arts in Humanitarian Assistance Program. This course will examine the central role and importance of food and nutrition in complex emergencies. The implications of this for nutrition assessment, policy development, program design and implementation will be examined. This will provide an understanding of; the nutritional outcomes of emergencies (malnutrition, morbidity and mortality); and also the causes of malnutrition and mortality in emergencies (the process and dynamics of an emergency). The course will also develop a broader range of management skills needed in relation to humanitarian response initiatives. This course was formerly listed as NUTR 264.				

132392	Statistical Methods For Nutrition Research II			
Subject:		Catalog Nbr:		
NUTR		0309		
2015 SPRG		Primary	Gerard Dallal	Jerry.Dallal@tufts.edu
Part two of a one-year, two-semester course covering descriptive statistics, graphical displays, confidence intervals, hypothesis testing, t test, chi-square test, nonparametric tests, multiple linear regression, multiple logistic regression, experimental design, multi-factor and multiple comparisons procedures. Students will make extensive use of SPSS for Windows.NOTE: Students cannot receive credit for both NUTR 309 and NUTR 307.LAB: Students must sign up for one of three lab sections, time/locations TBA				

132420	Qualitative Research Methods For Nutrition			
---------------	---	--	--	--

Course Bulletin

Subject: NUTR	Catalog Nbr: 0310	2015 SPRG	Primary	Justeen Hyde	No Email on file.
<p>This course teaches principles and practical skills of qualitative methods in an interactive seminar format. Participants will learn how to design and carry out qualitative research by drawing on weekly background readings and writings, critical case-study discussions, and practical class exercises. They will also take part in the design, implementation, and reflective evaluation of a local research project that involves practical, hands-on experience. The first part of the course will focus on the foundations of qualitative research, including epistemological and ontological assumptions, an overview of methods and their strengths and challenges, standards for quality, and tools for critical assessment of insights derived from these methods. The second part of the course will be dedicated to learning how to design qualitative studies, develop data collection instruments, create data management strategies, and approach data analysis. Students will utilize an identified, community-based interest to inform their qualitative studies. In the final part of the course, students will implement the studies they have designed and gain experience interviewing, analyzing, and disseminating qualitative research. Students should have exposure to research methods in social or health sciences prior to enrollment in this course.</p>					

132434	Nutrition Data Analysis				
Subject: NUTR	Catalog Nbr: 0311	2015 FALL	Primary	Robert Houser	robert.houser@tufts.edu
<p>This course will cover knowledge of advanced Stata statistical computing, data base construction, error detection and correction; creation of composite variables; descriptive statistics; univariate analyses, including ANOVA, regression, and factor analysis; and the construction of scales and factor scores. Students pose a research question, identify appropriate statistical techniques for answering the research question, perform the analyses and report on the results in an article suitable for publication in an academic journal. Advanced Stata programming will be taught in weekly hands on lab sessions.</p>					

132447	Nutrition and Chronic Disease				
Subject: NUTR	Catalog Nbr: 0312	2015 SPRG	Primary	Sarah Booth	Sarah.Booth@tufts.edu
<p>This course covers issues in modern nutrition, public health and chronic disease. We will focus on the major non-infectious diseases present in Western countries that are caused by modifiable lifestyle choices and the role that diet plays in maintenance of health and the risk of chronic diseases. Credit: 0.5</p>					

132462	Nutritional Assessment				
Subject: NUTR	Catalog Nbr: 0313	2015 SPRG	Primary	Sai Das	sai.das@tufts.edu
<p>This course will provide an overview of the common nutritional and food security assessment tools.</p>					

Course Bulletin

Laboratory and field methods for population wide nutritional deficiency assessment, nutritional screening and surveillance, dietary assessment, hunger and food security as well as diet diversity and food group indices will be examined. Clinical methods including body composition, biochemical and clinical factors related to macro and micronutrient deficiency will be discussed. Using practical training and demonstrations students will learn how to select and apply these methods in program-based or research-based settings. Issues of validity and reliability of these methods will be addressed mainly in the context of strengths and limitations of each method. At the end of the course, students should have some familiarity with the common nutritional assessment techniques as well as their practical applications at the individual and population wide levels.
Credit: 0.5

132476	Design Of Epidemiologic Studies For Nutrition Research			
Subject:	Catalog Nbr:			
NUTR	0314			
2015 SPRG	Primary	Julie Dunn		Julie.Dunn@tufts.edu
This course examines epidemiological principles of study design for nutrition research. Focuses primarily on valid, efficient, and ethical methods for studying relationships between nutritional exposures and chronic disease. Includes written assignments and oral presentations requiring the application of design principles to specific research questions. This course was formerly listed as NUTR 262.				

132516	Applied Nutritional Biochemistry			
Subject:	Catalog Nbr:			
NUTR	0315			
2015 FALL	Primary	Alice Lichtenstein		alice.lichtenstein@tufts.edu
This course will focus on human nutrition and metabolism. Emphasis will be placed on the biological ramifications of altering substrate load and essential nutrients caused by intended and unintended changes in dietary intake. The functional and regulatory roles of macronutrients and micronutrients will be stressed. Additional components of the course will include integrating nutrition policy with nutrition science. Students will be guided in connecting the lay and scientific literature in the areas of biochemistry and nutrition, and exploring how each informs the other. Opportunities will be available for preparing short written reports and oral presentations on contemporary research issues related to the essential nutrients and current topics. Current challenges in the field of nutrition will be related to the lecture material.				

132530	Advanced Medical Nutrition Therapy			
Subject:	Catalog Nbr:			
NUTR	0316			
2015 SPRG	Primary	Kelly Kane		Kelly.Kane@tufts.edu
2015 SPRG	Secondary	Kathrina Prelack		kprelack@tufts.edu
Nutritional biochemistry and physiology as related to selected pathophysiological conditions, with attention paid specifically to dietary assessment and various indices of nutritional status. Conditions with particular relevance to clinical nutrition are emphasized. This course was formerly listed as NUTR 250B.				

Course Bulletin

132544	Positive Deviance for Behavior Change: A Course for Practitioners			
Subject:	Catalog Nbr:			
NUTR	0317			
2015 FALL	Primary	Randa Wilkinson-Bouvier	Randa.Wilkinson_Bouvier@tufts.edu	
<p>Positive Deviance provides a unique approach for solving problems that require social or behavioral change. At its heart is the belief that in every community there are a few individuals "positive deviants" whose uncommon practices or behaviors enable them to outperform or find better solutions to pervasive problems than their neighbors with whom they share the same resource base. Identifying the positive deviants' special practices/behaviors reveals hidden resources already present in the environment, from which it is possible to devise solutions to pervasive community problems, solutions that are sustainable as well as cost-effective. Students will read and discuss positive deviance and behavior change literature, review and critique studies and programs, and design and carry out positive deviance inquiries in the Boston area. Grading is Satisfactory/Unsatisfactory (S/U). Course enrollment is limited to 15. This course was formerly listed as NUTR 291PD.</p>				

132557	Statistical Methods For Epidemiology		
	Subject:	Catalog Nbr:	
	NUTR	0318	
<p>This course focuses on the identification of confounding, effect modification and bias in epidemiological data. Methods of control of confounding for continuous, categorical and time to event data will be explored. Topics include analysis of data from normal, binomial and Poisson distributions, logistic and Poisson regression, and survival analysis using actuarial, Kaplan-Meier and Cox's proportional hazards, correlated data analysis, generalized estimating equations, and the mixed model. The art and science of statistical modeling and data reduction will be introduced. The course emphasizes practical application and makes extensive use of the SAS programming language.</p>			

132570	Intermediate Epidemiology			
Subject:		Catalog Nbr:		
NUTR		0319		
2015 SPRG		Primary	Fang Fang Zhang	Fang_Fang.Zhang@tufts.edu
Intermediate Epidemiology exposes students to a variety of key concepts and methods when carrying out epidemiologic studies and teaches students applied skills in analyzing epidemiologic data and interpreting study findings appropriately. This course includes a 2-hour lecture session followed by a 1-hour lab session. The lecture session will present epidemiologic methods and concepts beyond the Principles of Epidemiology, and review relevant statistical methods and their applications in epidemiologic studies. The lab session will prepare students with practical skills in conducting and analyzing epidemiologic studies using SAS. The lab session will be taught in a computer lab equipped with SAS.				

132584	Nutritional Impact On The Immune System And Related Diseases		
Subject:		Catalog Nbr:	

Course Bulletin

NUTR	0320				
	2015 FALL	Primary	Simin Meydani	simin.meydani@tufts.edu	
<p>This special topics course will review the impact of various nutrients (in both deficient and supplemental states) on maintaining the homeostasis of the immune system during physiological and pathological states as well as during different developmental stages of life. The implications for disease development and/or prevention will be discussed. Special emphasis will be given to understanding the mechanism of nutrients' effect on the immune system at biochemical, molecular and cellular levels. The role of nutrient status in maintaining "optimal" immune function and "disease prevention" and its implications for determining the recommended dietary allowance will be discussed. This course was formerly listed as NUTR 291IM.</p>					

132599	Dietary Antioxidants And Degenerative Diseases				
	Subject:	Catalog Nbr:			
	NUTR	0321			
	2014 FALL	Primary	Mohsen Meydani	mohsen.meydani@tufts.edu	
<p>This course will discuss the role of dietary antioxidants and pro-oxidants on the pathogenesis of degenerative diseases at molecular, cellular and whole body level. The balance of pro-oxidants-antioxidants on free radical generation, lipid peroxidation, protein oxidation, DNA damage and cell injury will be reviewed in the context of chronic and acute diseases such as cardiovascular disease, cancer, diabetes, arthritis, Alzheimer's disease. This course emphasizes the role of dietary antioxidant vitamins E and C, carotenoids, polyphenols, selenium, iron, zinc and copper on oxidative stress and antioxidant defense mechanisms. This course was formerly listed as NUTR 291DA.</p>					

132614	International Humanitarian Response				
	Subject:	Catalog Nbr:			
	NUTR	0324			
	2015 SPRG	Primary	Daniel Maxwell	Daniel.Maxwell@tufts.edu	
<p>This course will offer a practical and in-depth analysis of the complex issues and skills needed to engage in humanitarian work in field settings. Through presentations offered by the faculty of the Humanitarian Studies Initiative and guest speakers who are experts in their topic areas, students will gain familiarity with the primary frameworks in the humanitarian field (human rights, livelihoods, Sphere standards, international humanitarian law) and will focus on practical issues that arise in the field, such as rapid assessments, application of minimum standards for humanitarian response, and operational approaches to relations with the military in humanitarian settings. Each student will be part of a team representing an international humanitarian non-governmental organization. Topics covered: Humanitarian response community and history; International Humanitarian Law and Human Rights Law; Sphere standards and sectoral applications (shelter, water and sanitation, food security, health); Civil-military relations, media skills, logistics, and budgeting; Monitoring and evaluation, accountability, and livelihoods; Personal security, mental health, stress, and teamwork; and Humanitarian technology. These topics will provide the foundational knowledge and skills needed to perform successfully during a three-day intensive field simulation of a humanitarian crisis that will take place in April. There is a \$300 to cover camping gear hire, food, and other equipment costs.</p>					

132626	Science Based Interventions for Child Malnutrition				
---------------	---	--	--	--	--

Course Bulletin

Subject:	Catalog Nbr:			
NUTR	0325			
2015 FALL	Primary	Irwin Rosenberg	irwin.rosenberg@tufts.edu	
2015 FALL	Primary	Shibani Ghosh	Shibani.Ghosh@tufts.edu	
<p>This course will build on current knowledge and translation of nutrition science basis for interactions for prevention and treatment of child malnutrition (wasting and stunting) in developing countries. The emphasis will be on protein quality, micronutrient content especially iron, Vitamin A, zinc, folate and essential fatty acids. Current interventions will be analyzed and discussed in this manner with emphasis on criteria for effectiveness studies.</p>				

132640	International Food And Agricultural Trade
Subject:	Catalog Nbr:
NUTR	0326
<p>NUTR 326 will allow fourth-semester Friedman students to examine the impact of international food and agriculture trade on food security outcomes, rural livelihoods, food safety, value-chain organization, consumption and food-related health outcomes, the environment, etc. in a seminar style format. The semester will begin with an introduction to international trade theories and market models; international trade institutions and the multilateral and bilateral agreements that regulate food trade; and international agricultural commodity markets. The effects of border interventions, domestic support policies, and exchange rates on food and agricultural markets will be explored. The role of domestic and multilateral governance of trade-related food regulations (labeling, risk assessment measures, etc.) will also be discussed. Problem sets will familiarize students with tariff and non-tariff border interventions and their impacts, and the effects of exchange rates on agricultural prices, comparative advantage, and production. The semester will include a trade negotiation simulation exercise.</p>	

132654	Food Systems
Subject:	Catalog Nbr:
NUTR	0327
<p>Food Systems represents a form of capstone course with a discussion format. Students will provide input into selection of topics that they will focus and present on. The course primarily addresses food system structures and components, with an emphasis on sustainability & spanning agriculture, environment, power and economics, values and ethics, food security, food sovereignty, and food choices. Topics of concentration may cover contemporary issues and can include food miles and 'foodprints'; climate change; greening vs. greenwashing; ethics of eating meat and using bottled water; and eating sustainably. We will also examine the global political economy of the food system, and approaches to understanding and influencing food system change. Common terminology used in food systems and sustainability discourses are clarified. Classes will emphasize student presentations on components of the food system; student-led discussions of readings; and group exercises/debates. Assignments will include research-based projects focusing on food system change. This class is suitable for second year students, or for first year students with grounding in food systems literature and/or relevant experience (to be approved by the instructor).</p>	

132667	Understanding Nutrition Science Using Systematic Review And Meta Analysis
---------------	--

Course Bulletin

Subject: Catalog Nbr:
NUTR 0328

Nutrition is an increasingly important topic for clinical medicine and public health policy. An unbiased assessment of the scientific literature is critical when formulating public health policy, allocating health care resources, reviewing and approving health claims, counseling patients who have varying biological needs and comorbidities, and targeting scarce research dollars. The large body of scientific literature, often with seemingly conflicting results, presents a formidable challenge to those making these decisions. This course will focus on the methods and uses of systematic reviews and meta-analyses for nutrition studies and their applications to the field of nutrition.

132680	Agricultural Science And Policy II			
Subject: Catalog Nbr:				
NUTR 0333				
2015 FALL		Primary	Timothy Griffin	Timothy.Griffin@tufts.edu
2015 FALL		Secondary	Christian Peters	Christian.Peters@tufts.edu
Second part of a two-semester sequence required of AFE students. This course covers the major biological, chemical and physical components of agricultural systems. Each is discussed from the viewpoints of both the underlying natural processes and principles, and their significance for major agricultural, food safety, and environmental policy issues in the US today. In this second semester, the topics are best management practices, livestock systems, food systems, climate change and bio-energy. Major policy issues associated with these areas include protecting groundwater from nitrogen contamination; regulating and monitoring pesticide use; regulating agricultural biotechnology; and regulating "factory" animal production.				

132694	Senior Clinical Rotations			
Subject: Catalog Nbr:				
NUTR 0335				
2015 FALL		Primary	Kelly Kane	Kelly.Kane@tufts.edu
Required of senior standing students enrolled in the Combined Dietetic Internship/Masters Degree program. Grading is Satisfactory/Unsatisfactory. Formerly NUTR 880.				

132709	Nutritional Genomics And Epigenomics	
	Subject:	Catalog Nbr:
	NUTR	0336
<p>The course, which consists of two modules, Nutritional Genomics and Nutritional Epigenomics, will offer a state of science approach to unravel the effects of diet on health. In the Nutritional Genomics module, students will learn how nutrients affect gene expression, how nutrients and genes interact, and how nutrients affect the process of diseases such as cardiovascular diseases and metabolic syndrome through genetic mechanism. The Nutritional Epigenomics module will provide the most recent knowledge regarding epigenetic phenomenon, a mechanism that alters gene expression without genetic changes, how nutrients affect epigenetic phenomena, and how nutrients affect physiologic and pathologic processes such as embryonic development, aging, and cancer by modifying epigenetic phenomena.</p>		

Course Bulletin

132722	Economics Of Agriculture And The Environment			
Subject:	Catalog Nbr:			
NUTR	0341			
2015 SPRG	Primary	Sean Cash	Sean.Cash@tufts.edu	
<p>This course is highly recommended for AFE students and any Friedman student with an interest in economic aspects of the food/environment interface. In this class we will be studying a broad range of environmental and natural resource problems through the tools and concepts of microeconomics - the social science that deals with balancing our (seemingly unlimited) wants and needs within the limitations of our personal, social, and natural environments. It therefore provides useful frameworks for considering issues such as how we protect and use our land, forests, and oceans; the impact of climate change on food production; societal investment in land, water, and soil quality; and how private and social incentives can help overcome market failures. Economic aspects of environmental and agricultural policies will be a major focus.</p>				

132736	Nutritional Biochemistry And Physiology: Macronutrients			
Subject:	Catalog Nbr:			
NUTR	0370			
2015 FALL	Primary	Stefania Lamon-Fava	stefania.lamon-fava@tufts.edu	
<p>Required of all students in the Biochemical and Molecular Nutrition and Nutritional Epidemiology programs. The course will expand understanding of the biological roles of nutrients and their metabolism using basic knowledge in physiology, biochemistry, cell biology and molecular biology. It will integrate information on the roles of macronutrients in nutrition and health especially on their relationship to cardiovascular disease, diabetes and cancer, as well as provide a forum for discussing the experimental approaches to studying macronutrient metabolism and function. NUTR 370 is an advanced course in the nutrition sciences and will cover topics related to carbohydrates and energy metabolism, fiber, protein and amino acids, and lipids. Students are expected to be familiar with the material covered in NUTR 202, as well as the biochemistry and physiology courses offered at Tufts.</p>				

132750	Nutritional Biochemistry And Physiology: Micronutrients			
Subject:	Catalog Nbr:			
NUTR	0371			
2015 SPRG	Primary	Edward Saltzman	edward.saltzman@tufts.edu	
<p>Required of all students in the Biochemical and Molecular Nutrition and Nutritional Epidemiology programs, NUTR 371 is an advanced course in nutritional sciences. Nutr 371 will cover topics related to minerals, watersoluble micronutrients and fat-soluble micronutrients. Students are expected to be familiar with the material covered in an introductory nutrition course, as well as the biochemistry and physiology courses.</p>				

132762	Ms Cont Part Time			
Subject:	Catalog Nbr:			
NUTR	0395			

Course Bulletin

--

132774	Ms Cont Full Time
Subject: NUTR	Catalog Nbr: 0396

135600		Directed Study		
Subject:	Catalog Nbr:			
NUTR	0397			
2015 FALL	Primary	Sara Folta	sara.folta@tufts.edu	
2015 FALL	Primary	Robert Houser	robert.houser@tufts.edu	
2015 FALL	Primary	Stefania Lamon-Fava	stefania.lamon-fava@tufts.edu	
2015 FALL	Primary	Sarah Booth	Sarah.Booth@tufts.edu	
2015 FALL	Primary	Joseph Kehayias	joseph.kehayias@tufts.edu	
2015 FALL	Primary	Elizabeth Johnson	elizabeth.johnson@tufts.edu	
2015 FALL	Primary	Lynne Ausman	lynne.ausman@tufts.edu	
2015 FALL	Primary	Jeffrey Blumberg	jeffrey.blumberg@tufts.edu	
2015 FALL	Primary	Nicola McKeown	nicola.mckeown@tufts.edu	
2015 FALL	Primary	Chung-Yen Chen	Oliver.Chen@tufts.edu	
2015 FALL	Primary	Jimmy Crott	Jimmy.Crott@tufts.edu	
2015 FALL	Primary	Jennifer Obadia	Jennifer.Obadia@tufts.edu	
2015 FALL	Primary	Timothy Griffin	Timothy.Griffin@tufts.edu	
2015 FALL	Primary	Fang Fang Zhang	Fang_Fang.Zhang@tufts.edu	
2015 FALL	Primary	William Masters	William.Masters@tufts.edu	
2015 FALL	Primary	Sean Cash	Sean.Cash@tufts.edu	
2015 SPRG	Primary	Edward Saltzman	edward.saltzman@tufts.edu	
2015 SPRG	Primary	Alice Lichtenstein	alice.lichtenstein@tufts.edu	
2015 SPRG	Primary	Gail Rogers	gail.rogers@tufts.edu	
2015 SPRG	Primary	Jennifer Scheck	jennifer.scheck@tufts.edu	
2015 SPRG	Primary	Jennifer Coates	jennifer.coates@tufts.edu	
2015 SPRG	Primary	Eileen Kennedy	Eileen.Kennedy@tufts.edu	
Directed Study is a mechanism for a student to receive academic credit for work completed under the tutelage of a faculty member. This is generally done on a one-to-one basis with the student taking major responsibility for his/her progress. Research conducted in a laboratory during a Directed Study project can be either problem-oriented or technique-based. Directed Studies must be supervised by Friedman School faculty. Students must register for a Directed Study using the online form.				

135642	Doctoral Candidacy Preparation
Subject: NUTR	Catalog Nbr: 0399

Course Bulletin

Students should register for this course while preparing for the Ph.D. Qualifying Examination in order to remain in active status. Full time equivalent. This course was formerly listed as NUTR 397.

135681	Advanced Analytic Methods For Nutrition Policy Research		
	Subject:	Catalog Nbr:	
	NUTR	0401	
<p>This course teaches advanced methods for food and nutrition policy research. A central theme is the difficulty of inferring causation using non-experimental data, because of "omitted" or "confounding" factors. We focus on four strategies for addressing omitted variables: a) proxy variables, b) the "difference-in-differences" approach, c) simple models for panel data (fixed effects and random effects), and d) instrumental variables (two-stage least squares). We also address methods for solving the most frequently encountered data problems, such as multicollinearity, complex survey design, and outliers. Most methods are drawn from the field of econometrics, but they are chosen for their likely usefulness for social science research more generally. Using examples of real nutrition policy research questions in the United States and around the world, the course demonstrates the use of advanced analytic methods for defensible and convincing policy analysis. This course was formerly listed as NUTR 281.</p>			

135708	Phd Thesis Only Part Time		
	Subject:	Catalog Nbr:	
	NUTR	0402	

135787	Ph.d. Thesis Only	
Subject:	Catalog Nbr:	
NUTR	0403	
All doctoral students must register for NUTR403 every semester to remain in active and full time status (full time equivalent.)		

135801	Food And Nutrition Policy Doctoral Research Seminar		
	Subject:	Catalog Nbr:	
	NUTR	0404	
	2015 FALL	Primary	Irwin Rosenberg irwin.rosenberg@tufts.edu
<p>This seminar is designed to offer doctoral students a forum for discussing issues, methodologies, and research findings at a higher plane of analysis. Will represent a venue for in-depth, cross-disciplinary exploration of challenging topics. Under the direction of one or more faculty members, students will be expected to facilitate topic discussions and guide each other's research, evaluate methods, and critique research findings, often in fields outside of nutrition. Students will be actively challenged to explore cutting-edge topics in innovative ways. The seminar offers students an opportunity to apply new methodologies or insights directly to their own work and return to the seminar at different stages of preparation for further review. In addition, students will develop more presentational skills, and learn the art of giving and receiving constructive criticism. Grading</p>			

Course Bulletin

is Satisfactory/Unsatisfactory. This course was formerly listed as NUTR 292. NOTE: FPAN PH.D. REQUIREMENT. Food Policy and Applied Nutrition doctoral candidates are required to fulfill at least two semesters during the period of their doctoral program; participation by FPAN doctoral students beyond the requirement two is strongly encouraged. Strongly recommended for doctoral students in the (former) World Hunger, US Food and Nutrition Issues programs and AFE program. Other doctoral students are welcome.

136001	Directed Study			
Subject:	Catalog Nbr:			
NUTR	0497			
2015 FALL	Primary	Christina Economos	christina.economos@tufts.edu	
2015 FALL	Primary	Robert Houser	robert.houser@tufts.edu	
2015 SPRG	Primary	Edward Saltzman	edward.saltzman@tufts.edu	
Directed Study is a mechanism for a student to receive academic credit for work completed under the tutelage of a faculty member. This is generally done on a one-to-one basis with the student taking major responsibility for his/her progress. Research conducted in a laboratory during a Directed Study project can be either problem-oriented or technique-based. Directed Studies must be supervised by Friedman School faculty. Students must register for a Directed Study using the online form.				

136015	Research Practicum	
Subject:	Catalog Nbr:	
NUTR	0501	
Required of Post-Doctoral and Training Grant Fellows. Grading is Satisfactory/Unsatisfactory.		

138644	Transfer Credit	
Subject:	Catalog Nbr:	
TRAN	9999	

138792	Genetics & Epidmiology	
Subject:	Catalog Nbr:	
CRBU	0701	

138793	Microeconomic Thoery	
Subject:	Catalog Nbr:	
CRBU	0501	
Microeconomic Thoery		

Course Bulletin

138794	Advanced Microeconomics
Subject: CRBR	Catalog Nbr: 0301

138795	Graduate Bioinformatics
Subject: CRBC	Catalog Nbr: 0616

138799	Anthropology of Food and Nutrition
Subject: NUTR	Catalog Nbr: 0330
2015 SPRG	Primary Ellen Messer ellen.messer@tufts.edu

138928	MARKETING OPER MANAGEMNT
Subject: CRBC	Catalog Nbr: 0705

138929	MUSCLE BIO HLTH & DISEAS
Subject: CRBU	Catalog Nbr: 0560

138930	TPC ADVANCE ECONOMETRICS
Subject: CRBU	Catalog Nbr: 0711

138931	BIOLOGICAL DATABASE ANLY
Subject: CRBU	Catalog Nbr: 0768

Course Bulletin

138932	MASS SPEC&FUNCTNL GENOMC
Subject: CRBU	Catalog Nbr: 0793

138933	SUPPLY CHAIN MANAGEMENT
Subject: CRBU	Catalog Nbr: 0854

138956	Cross Reg: Research, Clinical and Public Policy Applications in Medical Nutr sci
Subject: CRBU	Catalog Nbr: 0620

138957	Comp. Bio of Human Disease
Subject: CRBU	Catalog Nbr: 0500

138959	Proteins, Mass Spectrometry & Functional Genomics
Subject: CRBU	Catalog Nbr: 0792

139037	STATISTICAL METHODS EPI
Subject: CRBU	Catalog Nbr: 0852

139207	Nutritional Biochemistry with Community/Clinical Applications: Macronutrients
Subject: NUTB	Catalog Nbr: 0205
2015 FALL	Primary Lynne Ausman lynne.ausman@tufts.edu
Students will explore the fundamental roles of nutrients in biological systems and the implications of macronutrient biological functions on food and nutrition policy. Emphasis will be placed on the function of nutrients as defined by their chemistry, interrelations among nutrient functions, mechanistic approaches in the analysis of nutrient-disease relationships, and recent advances in the basic sciences related to nutrition	

Course Bulletin

and nutrient function. The course will integrate examples of community, clinical and public health policy applications throughout the term. Published journal articles from the peer reviewed literature, case histories, and public policy documents will form the basis for critical review and discussion. This is the first of a two-course sequence (NUTB 205 and NUTB 305 – may be taken in either order).

139208	Economics for Food and Nutrition Policy			
Subject: NUTB		Catalog Nbr: 0238		
2015 FALL		Primary	William Masters	William.Masters@tufts.edu
<p>This course equips students with the principles used for economic analysis of food and nutrition policies around the world. We use the graphical methods taught in standard, one-semester courses on the principles of economics, but our motivation, examples and applications are focused on food and nutrition problems in the United States and elsewhere. On completion, students will be able to obtain the data and apply the analytical methods needed to: (1) explain and predict consumption, production and trade in agriculture and food markets; (2) evaluate the social welfare consequences of market failure, collective action and government policies including regulation, taxation and enforcement of property rights in agriculture and food markets; (3) measure poverty and inequality in income, wealth, nutrition and health, as influenced by changes in markets and policies; and (4) describe macroeconomic relationships, fluctuations and trends in incomes, employment, economic growth and development.</p>				

139209	Statistical Methods for Health Professionals I			
Subject: NUTB		Catalog Nbr: 0250		
2015 FALL		Primary	Robert Houser	robert.houser@tufts.edu
Students will critically evaluate, compare, interpret, judge, summarize and explain statistical results published in research articles in health and nutrition journals from the United States and around the world that are influencing the practice of nutrition science, policy and research. Students learn and use Stata® statistical software for their homework.				

139222	Field Research Methods in Humanitarian Settings			
Subject: NUTC		Catalog Nbr: 0235		
2014 FALL		Primary	Karen Jacobsen	karen.jacobsen@tufts.edu

139239	Intermediate Biostatistics: Regression Methods			
Subject: NUTR		Catalog Nbr: 0323		
2015 FALL		Primary	Kenneth Chui	Kenneth.Chui@tufts.edu
This course provides a survey of regression techniques for outcomes common in biomedical and public health				

Course Bulletin

data including continuous, count, binary, and time series data. Emphasis is on developing a conceptual understanding of the application of these techniques to solving problems, rather than to the numerical details. The objectives of this course are to (1) recognize when data can be described and analyzed by a regression model; (2) develop and interpret regression models; (3) plan and conduct an appropriate analysis; (4) summarize the results of the analysis in terms of the research question in both verbal and written formats suitable for targeted audiences. Prerequisites: PH 205 with a grade B or better, or NUTR 207 or NUTR 206 or NUTR 209 with a grade B- or better. Students who wish to use other statistics course as prerequisites please gather a syllabus of the said course and contact the course director for consent before the end of the add/drop period. This course is cross-listed with Public Health (PH 206).

139241	Food Security and Nutrition in Emergencies			
Subject: NUTC		Catalog Nbr: 0232		
2015 SPRG		Primary	Daniel Maxwell	Daniel.Maxwell@tufts.edu
2015 SPRG		Primary	Katherine Sadler	Kate.Sadler@tufts.edu
<p>The course will take a practical programming approach by first, reviewing issues of food security and nutritional assessment, interpretation and response analysis, followed by a focus on the core food security and nutrition actions including food assistance, direct nutrition interventions and interventions to protect and promote food security and livelihoods more broadly. Programming examples explored cover a range of applications from acute emergencies to protracted crises, recovery, and in some cases, food security and nutrition elements of social protection. The evidence base for these actions will be reviewed, along with related international policies, standards and guidelines. A broader range of related and topical issues will also be considered, including humanitarian protection, disaster risk reduction and emergency preparedness, coordination, capacity development, recovery and transition.</p>				

139243	Statistical Methods for Health Professionals II			
Subject: NUTB		Catalog Nbr: 0350		
2015 SPRG		Primary	Robert Houser	robert.houser@tufts.edu
<p>The purpose of this course is to help students gain proficiency applying statistical concepts and procedures for the analysis of health and nutrition data. Statistical analysis techniques used for the analysis of data from experimental and non-experimental research studies covered in this course will include multiple regression assumptions, diagnostics, transformations and robust standard errors, multiple logistic regression, analysis of variance and covariance and analysis of data from cluster randomized trials. In this course students critically evaluate, compare, interpret, judge, summarize and explain statistical results published in research articles in health and nutrition journals that are influencing nutrition science, research, policy, and clinical practice. Students will learn how to formulate research questions, how to identify appropriate statistical techniques, how to perform the analysis with Stata(R) statistical software and report results in tables, text and figures.</p>				

139371	Directed Study			
Subject: NUTR		Catalog Nbr: 0397		

Course Bulletin

2015 FALL	Primary	Paul Leavis	paul.leavis@tufts.edu
2015 FALL	Primary	Diane McKay	diane.mckay@tufts.edu
2015 FALL	Primary	Martin Obin	martin.obin@tufts.edu
2015 FALL	Primary	Jennifer Coates	jennifer.coates@tufts.edu
2015 FALL	Primary	Timothy Griffin	Timothy.Griffin@tufts.edu
2015 FALL	Primary	Donato Rivas	Donato.Rivas@tufts.edu
2015 FALL	Primary	Christian Peters	Christian.Peters@tufts.edu
2015 SPRG	Primary	Carole Palmer	carole.palmer@tufts.edu
2015 SPRG	Primary	Johanna Dwyer	johanna.dwyer@tufts.edu
2015 SPRG	Primary	Kelly Kane	Kelly.Kane@tufts.edu
2015 SPRG	Primary	Sean Cash	Sean.Cash@tufts.edu
2015 SUMR	Primary	Sara Folta	sara.folta@tufts.edu
Directed study to be used with a letter/numeric grading basis			

139426	Nutrition Child Development		
Subject:	Catalog Nbr:		
NUTR	0212		
2015 SPRG	Primary	Stephanie Frasca	Stephanie.Anzman_Frasca@tufts.edu
<p>This course provides an overview of development during gestation, infancy, childhood, and adolescence, and enables students to think critically about the role of nutrition in child development. We will focus primarily on current issues and controversies in the United States, notably for health promotion and obesity prevention, with international perspectives incorporated during select units. This course complements NUTR 301 (Nutrition & the Life Cycle), as well as NUTR 272 (Physical Activity, Nutrition and Health); the only prerequisite is NUTR 201 (Fundamentals of Nutrition Science) or equivalent.</p>			

139427	Food Politics and Policy in the US		
Subject:	Catalog Nbr:		
NUTR	0340		
<p>This course uses contemporary food issues to examine core elements of the U.S. system of government and to illuminate dynamics in American politics and policymaking. Its primary purpose is to develop a clearer understanding of how government institutions function, and how politics broadly understood shape what we end up calling (perhaps with some overstatement) “food policy.” As such, the course focuses its attention on such elements as the constitutional foundations of the U.S. system of government, how the structure of the election system affects policy debate and outcomes, why some organized societal interests have greater access to and leverage with policymakers than others, and, overall, why obtaining fundamental policy change is difficult – yet not impossible</p>			

139428	Food Systems Modeling and Analysis		
Subject:	Catalog Nbr:		
NUTR	0342		
2015 SPRG	Primary	Christian Peters	Christian.Peters@tufts.edu

Course Bulletin

Agriculture and food industries are a subject of growing interest in terms of their resource requirements, ecological impacts, and sustainability. This course will provide a foundation in some of the methods of modeling and analysis used to study food systems. We will address several types of approaches, generally building in complexity, starting with net balances of production and consumption and continuing through modeling food production capacity, foodshed analyses, life cycle assessment, and system dynamics and integrated modeling. Students will learn what types of questions are best addressed through modeling approaches, the methods used to conduct food systems models, and the data required to complete the analyses. In addition, they will have opportunities to conduct simple analyses through in-class exercises. Finally, students will learn how models might be relevant to the development of policy related to local and regional food systems or dietary changes to reduce environmental impact.

139439	Community Organizing
Subject: CRBU	Catalog Nbr: 0781

139456	Nutritional Biochemistry with Community/Clinical Applications: Micronutrients
Subject: NUTB	Catalog Nbr: 0305
2015 SPRG	Primary Lynne Ausman lynne.ausman@tufts.edu
Students will continue the exploration of the fundamental roles of nutrients in biological systems and the implications of micronutrient biological functions on food and nutrition policy. As with NUTB 205, emphasis will be on the function of nutrients as defined by their chemistry, interrelations among nutrient functions, mechanistic approaches in the analysis of nutrient-disease relationships, and recent advances in the basic sciences related to nutrition and nutrient function. This is the second of a two-course sequence (NUTB 205 and NUTB 305 – may be taken in either order).	

139457	Global Nutrition Programs
Subject: NUTB	Catalog Nbr: 0227
2015 FALL	Primary Sujata Dixit-Joshi Sujata.Dixit_Joshi@tufts.edu
The goal of this course is to expose students to major global nutrition programs and strategies designed to lessen the global burden of nutrition related morbidity and mortality. Both prevention and treatment options for major nutrition related disorders that dominate contemporary populations will be discussed. This course will cover: a) current debates in the cause, prevention and treatment of global nutrition challenges, b) the range of options for interventions that exist, and actually implemented, c) the strength of the evidence base underpinning actions, d) approaches to problem assessment, (including the process of considering alternatives according to context), e) examples of successful nutrition interventions, f) constraints to success (what makes or breaks major program successes), and g) key global organizations involved in nutrition policy and programming.	
Each session will seek to cover: a) main problems still needing to be resolved; b) priority/target populations; c)	

Course Bulletin

interventions used/not used. Students will examine solutions at the local, national, and international level, including policy impact on programs, public health interventions, and public health practices.

139458	Theories of Behavior Change			
Subject:		Catalog Nbr:		
NUTB		0211		
2015 SPRG		Primary	Sara Folta	sara.folta@tufts.edu
<p>This course explores the theories of behavior change most commonly used in nutrition and public health. Includes an examination of several individual-based, social-based, organization-based and eco-social theories, including the Health Belief Model, the Theory of Planned Behavior, the Trans-theoretical Model, Decision-Making, Social Support, Social Learning Theory, and Diffusion of Innovations. Understanding and being able to apply these theories will help researchers and practitioners design program interventions based on psychological, biological, social, cultural and organizational frameworks.</p>				

139459	Interpreting Nutrition Evidence			
Subject:		Catalog Nbr:		
NUTC		0230		
2015 SPRG		Primary	Adela Hruby	Adela.Hruby@tufts.edu
This course will familiarize students with the terms and tools required to navigate the scientific literature and dissect the components of nutrition research articles. The course covers literature searches, study designs, anatomy of a research paper, and common statistical terms. Through “hands-on” exercises, including a literature review and case studies of how nutrition-related scientific evidence is translated in press releases and social media, students will gain the skills required to translate and communicate this body of knowledge responsibly.				

139468	Obesity and Energy Regulation			
Subject:		Catalog Nbr:		
NUTB		0242		
2015 SPRG		Primary	Sai Das	sai.das@tufts.edu
This course is a perspective from the intersection of food and biology and will build upon principles of energy balance that were developed in Nutritional Biochemistry. In the first section, physiologic regulation of body weight and its dysregulation leading to obesity will be explored. The interaction between hormonal/neuroendocrine systems and dietary factors will featured. In the second half of the course, lifestyle, pharmacologic and surgical approaches to obesity treatment as well as maintenance of lost weight will be presented.				

139509	Systematic Reviews: Theory and Practice	
Subject:	Catalog Nbr:	
NUTR	0369	
This course is designed to train students how to conduct a systematic literature review and how to report it in		

Course Bulletin

a research article suitable for an academic journal. This course combines classroom sessions with substantial individual or group work to create a systematic literature review plan. Students will be taught how to perform each step in a review and will then be expected to apply it to a topic of their choosing. They will get feedback at each stage in the process. The final deliverable for the course will be a protocol for a systematic literature review.

Both masters and doctoral students can use the course as an opportunity to become an expert on a particular topic of interest. Masters students can use the written review protocol as a writing sample when applying for employment after graduation and some students might eventually complete the systematic review and publish it in an academic journal. Doctoral students can use the literature review as the basis for dissertation letter of intent since conducting a systematic review is a good first step in developing a research proposal.

Several course sessions and labs will be devoted to mathematical meta-analysis concepts and procedures. The primary course objectives are to understand how to conduct a systematic literature search, how to critically evaluate the quality of each study selected for inclusion in the review and how to write up the review in a form suitable for submission to an academic journal.

139570	Directed Study				
	Subject:	Catalog Nbr:			
	NUTR	0297			
	2015 FALL	Primary	Sean Cash		Sean.Cash@tufts.edu
	2015 SPRG	Primary	Johanna Dwyer		johanna.dwyer@tufts.edu
Directed study to be used with a letter/numeric grading basis.					

139588	Biology II: Cells, Genetics, Development and Physiology				
	Subject:	Catalog Nbr:			
	CRBU	BI108			

139604	Directed Study				
	Subject:	Catalog Nbr:			
	NUTR	0497			
Letter/grading basis					

139617	Policy, Systems, and Environmental Change for Physical Activity				
	Subject:	Catalog Nbr:			
	NUTC	0212			
	2015 SUMR	Primary	Rebecca Boulos		Rebecca.Boulos@tufts.edu
	2015 SUMR	Primary	Richard Fenton		Mark.Fenton@tufts.edu

Course Bulletin

Behavior change efforts alone are not sufficient to elicit population level improvements in physical activity and nutrition. This course will address policy and environmental approaches that are being utilized nationwide to create physical and cultural settings that routinely support healthier choices at all levels. The basics of physical activity measurement, epidemiology, and guidelines will be outlined, along with fundamental lessons of individually targeted approaches to physical activity and nutrition. The socio-ecological model will frame the evidence for systems-based approaches to population physical activity and nutrition, such as: key elements of the built environment that support routine activity and healthier food systems; policies such as land use plans and zoning, transportation networks and funding, and site design guidelines; school policies affecting physical activity (e.g., physical education and recess, shared-use agreements, Safe Routes to School) and nutrition (e.g., vending policies, concessions, fund-raising). The result will be a broad understanding of the evidence and best practice-based approach to healthy community development.

139618	Assessing and Measuring the Impact of Humanitarian Aid			
Subject:		Catalog Nbr:		
NUTC		0302		
2015 SUMR		Primary	Erin Boyd	Erin.Boyd@tufts.edu
<p>Progress has been made on monitoring and evaluation of humanitarian programs, yet little has been achieved in the field of measuring and understanding the impact of aid, both short and long term; leading to limited evidence of the effectiveness of humanitarian aid. This problem relates to both the methodological challenges of measuring impact in complex, remote or insecure humanitarian contexts, and a set of institutional constraints that hinder organizational and personal learning. This course will explore problems of impact assessment for emergency operations and will provide training in some of the most promising methodologies of impact assessment, paying attention to participatory assessment methodologies. The course explains the trade-offs between 'hard' quantitative approaches and methods in humanitarian situations, and 'soft' qualitative approaches and methods, leading to understanding of the benefits of mixed methods for impact assessment. Through analysis of institutional constraints to impact assessment, the course provides guidance on ways to use evidence to influence policy and programming in humanitarian contexts.</p>				

139619	Master's Thesis			
Subject: NUTB		Catalog Nbr: 0300		
2015 SUMR		Primary	Robert Houser	robert.houser@tufts.edu
2015 SUMR		Primary	Lynne Ausman	lynne.ausman@tufts.edu
Faculty will oversee the selection, scope and mentoring for a thesis project.				

139620	Global Food and Nutrition Policy			
Subject: NUTB		Catalog Nbr: 0206		
2015 SUMR		Primary	Eileen Kennedy	Eileen.Kennedy@tufts.edu
Varying global and national forces drive food production and consumption within and among nations. The possibilities and limitations facing nutrition professionals in any given situation require an understanding of policy and the basic principles of policy formation. In order to be effective, professionals need an				

Course Bulletin

understanding of the indicators that are available to diagnose the situation, the skills to seek out information, and the ability to correctly interpret the results. Students will examine and apply these skills to specific case examples and evaluate the range of programs used to address over and under-nutrition, and which interventions are appropriate in varying circumstances.

The class will cover: a) how science influences the policy agenda, and how policy debates influence the scientific and programmatic agenda; b) the scientific underpinnings of food and nutrition policies and development of normative guidance; c) how empirical findings in scientific research and operational programming make their way into policy and law; d) global debates and controversies in nutrition; e) how to evaluate what works best and what the alternatives should be considered; f) a review of key organizations involved in global food and nutrition policy and programming.

139621	Management of Health and Nutrition NGO's			
Subject: NUTB		Catalog Nbr: 0208		
2015 SUMR		Primary	David Hastings	david.hastings@tufts.edu
<p>Key concepts and principles for managing nutrition and health programs and organizations will be addressed to equip students to function as program directors and project managers. Case studies and readings will be used to convey a practical understanding of how to manage and coordinate business functions to achieve the goals and objectives of the organization. This course will deal with for-profit and nonprofit organizations. Topics will include business and project planning, management control systems, financial management, budgeting, performance measurement, pricing and marketing of services, operations management, cost analysis, human resource management, and the development of management information systems. The course is designed to provide students with practical tools.. The course is designed to develop an awareness of how each management function interacts and impacts the organization. Residencies will be comprised of lectures covering specialized topics, case discussions with student presentations, and journal discussions.</p>				

139622	Advanced Medical Nutrition Therapy			
Subject:	Catalog Nbr:			
NUTB	0316			
2015 SUMR	Primary	Kelly Kane	Kelly.Kane@tufts.edu	
2015 SUMR	Primary	Kathrina Prelack	kprelack@tufts.edu	
<p>This course aims to expand student’s knowledge on a variety of common pathophysiological conditions and integrate this knowledge with the intervention of clinical nutrition therapies. Students will learn about the basic elements of medical nutritional therapy. These include nutritional assessment, which incorporates the use of anthropometric, biochemical and clinical data to determine nutritional status. Particular emphasis is placed on understanding energy expenditure and body composition and their components, and how these may change during physiological stress or illness. Students then learn about enteral and parenteral nutrition and fundamental aspects of nutrition support. These core elements are then applied in the study of various disease states and clinical nutrition therapy. Students also have the opportunity to explore diet and disease in an approved area of their interest through written and oral presentation.</p>				

139777	Principles of Nutrition Science
---------------	--

Course Bulletin

Subject: NUTC	Catalog Nbr: 0202			
2015 FALL	Primary	Diane McKay	diane.mckay@tufts.edu	
<p>This course presents the fundamental scientific principles of human nutrition. Students will become familiar with food sources; recommended intake levels; biochemical role; mode of absorption, transport, excretion; deficiency/toxicity symptoms, and potential major public health problems for each macro- and micronutrient. The student goals for this course are: 1.) to describe the components of a healthy diet, 2.) understand the major nutrition problems that affect individuals and populations from conception and throughout the life cycle, and 3.) understand the scientific basis for nutritional recommendations brought before the scientific and lay communities. Prerequisites: Students are required to have taken a one semester college-level course in either human biology, chemistry, or physiology (preferred, Tufts offers an online Physiology course every summer). Copy link into browser to review Fall 2015 Syllabus: https://docs.google.com/document/d/1VvfU7ycz7gVrcWiuqZ3aHhoujSlo5xuRC8y6_TL2ghU/edit?usp=sharing</p>				

139834	Behavior Change Theory and Positive Deviance			
Subject: NUTC	Catalog Nbr: 0213			
2015 SPRG	Primary	Sara Folta	sara.folta@tufts.edu	
2015 SPRG	Primary	Emily Vikre	No Email on file.	
2015 SPRG	Primary	Randa Wilkinson-Bouvier	Randa.Wilkinson_Bouvier@tufts.edu	
<p>How do you achieve behavior change in challenging circumstances? This course explores that question, first by examining theories of behavior change commonly used in nutrition and public health and then with an in-depth introduction specifically to the Positive Deviance Approach. In the first half, several individual-based, social-based, organization-based and eco-social theories will be explored, with an emphasis on understanding of core theory concepts and issues in measurement. Building on this base, the second half will cover the concept, theory, history and application of PD. Students will develop their own problem statement and map out the steps required to apply the PD approach to their identified problem. By the end of this course, students will understand the steps involved in the PD process, acquire basic skills to complete step one of the PD process, and develop a proposal to design a PD inspired project plan. Interactive activities and assignments will teach students when to apply each of the behavior change methods.</p>				

139852	Epidemiology for Nutrition Professionals			
Subject: NUTB	Catalog Nbr: 0204			
2015 SPRG	Primary	Silvina Choumenkovitch	silvina.choumenkovitch@tufts.edu	
2015 SPRG	Primary	Maria Lammi	Maria.VanRompay@tufts.edu	
<p>This course covers basic epidemiologic concepts and methods and introduces students to techniques, including dietary assessment methods, which are used in human nutrition research. Students will learn to calculate and interpret basic measures of disease frequency and measures of effect, will be introduced to methods for recognizing and addressing sources of error in human studies, and will learn the basics of study design and implementation for nutrition research.</p>				

Course Bulletin

139853	Monitoring and Evaluation of Nutrition and Food Security Programs			
Subject: NUTB		Catalog Nbr: 0210		
2014 FALL		Primary	Erin Boyd	Erin.Boyd@tufts.edu
2014 FALL		Primary	Marion Min-Barron	Marion.Min-Barron@tufts.edu
<p>Inadequate project monitoring and evaluation (M&E) represent a major constraint in domestic and international programmatic efforts to address problems of malnutrition. The absence of sound M&E processes in large numbers of nutrition projects, despite continued evidence of their value in assessing and improving project performance, suggests that many project planners and managers may not yet have the necessary skills or understanding to develop and operate such systems. In this course students will become familiar with the strategies and techniques for monitoring and evaluating projects, particularly those related to nutrition and food security. They will be exposed to multiple domestic and international examples of monitoring and evaluation systems. Students will gain experience in the design of regional monitoring and evaluation plans and be able to assess the adequacy of proposals and program evaluations designed by others.</p>				

139854	Nutrition, Brain and Behavior			
Subject: NUTB		Catalog Nbr: 0243		
2015 FALL		Primary	Marcy Goldsmith	marcy.goldsmith@tufts.edu
During the past two decades there has been an increasing awareness of the interaction between nutrition and behavior. To examine this interaction, two general themes will be pursued. First, we will investigate the effects of nutritional variables on brain functioning and behavior. Second, we will study the influence of psychological variables in determining food intake and nutritional status. Examples of topics to be covered includes: the effects of protein- caloric malnutrition on brain development and intellectual functioning; obesity and other eating disorders; food additives and behavior; the role of brain mechanisms in determining nutritional intake; food choice; food as an addiction; and the importance of vitamins and minerals for behavioral functioning.				

139855	Nutrition and Aging	
Subject:	Catalog Nbr:	
NUTB	0241	
<p>This course will address the impact of nutrition on aging and the impact of aging on nutrient needs. The worldwide population is experiencing a dramatic increase in the number of elderly, due to socioeconomic improvements, and advances in science, technology, medicine and nutrition. It is of primary importance to determine both the nutritional needs of the elderly and to adequately determine long-term nutrient needs that will prevent or ameliorate nutrition- related chronic diseases. Topics will include changes in body composition and their adverse effects such as frailty and sarcopenia, controversies about healthy weights for older adults, roles of micronutrients in ameliorating age-related deterioration in bone health and immune function, and therapies that may prevent cognitive decline. Approaches to maximizing healthy aging from physiological and sociologic aspects of these problems will be presented.</p>		

Course Bulletin

139856	Food Science Fundamentals			
Subject: NUTB		Catalog Nbr: 0219		
2015 FALL		Primary	Lynne Ausman	lynne.ausman@tufts.edu
<p>The foundation of knowledge for any nutrition professional is a thorough understanding the nutritional components of food and foodborne pathogens that are linked with disease and issues affecting food safety. Students will become adept with the basic groups of foods in the food supply and their nutrient profiles, their harvesting, processing and storage procedures and policies. The course will provide students a broad overview of certain aspects of the food supply both locally and worldwide and will examine issues affecting food safety including some of the mechanisms by which foodborne pathogens that cause disease in humans, as well as the human consequences of infection by major foodborne pathogens such as E. coli O157:H7, Campylobacter and Listeria.</p>				

139922	Cardiovascular Epi II	
Subject:	Catalog Nbr:	
CRHA	EPI245	

140094	Sustainability on the Farm			
Subject: NUTC		Catalog Nbr: 0261		
2015 FALL		Primary	Timothy Griffin	Timothy.Griffin@tufts.edu
2015 FALL		Secondary	Zachary Conrad	Zach.Conrad@tufts.edu
Agriculture is the single largest user of land and water and, thus, has broad environmental impacts. Gains in yield productivity over the last five decades have met increasing demands without increasing agricultural area in the U.S., but environmental, economic and social costs have been considerable. In this first course of the series, the farm level primary costs and benefits will be analyzed, along with a profile of current conventional and alternative approaches to food production in the U.S. Students will examine the policy response to environmental and conservation concerns, focusing on the balance between meeting increased demand while mitigating environmental and social costs. Prerequisite: Graduate standing or instructor consent.				

140108	Biology of Muscle Wellness & Disease		
Subject:		Catalog Nbr:	
CRBU		HS560	

140148	Introduction to Epidemiology
Subject:	Catalog Nbr:

Course Bulletin

CRBU	713
------	-----

140163	Principles of General Chemistry
Subject: CRBU	Catalog Nbr: CAS171

140277	Genetic Epidemiology
Subject: CRHA	Catalog Nbr: 507

140278	Bayesian Methodology in Biostatistics
Subject: CRHA	Catalog Nbr: 249
Bayesian Methodology in Biostatistics	

140279	Econometrics for Health Policy
Subject: CRHA	Catalog Nbr: 525
Econometrics for Health Policy	

140280	Population, Health, and Development
Subject: CRHA	Catalog Nbr: 225
Population, Health, and Development	

140281	Mobilizing the Science of Early Childhood Development to Drive Innovation in Policy and Practice
Subject: CRHA	Catalog Nbr: 299
Mobilizing the Science of Early Childhood Development to Drive Innovation in Policy and Practice	

140373	Sustainable Food Systems and Markets
Subject: NUTC	Catalog Nbr: 0262

Course Bulletin

2015 SPRG	Primary	Jennifer Obadia	Jennifer.Obadia@tufts.edu
<p>The food sector, one of the largest components of the U.S. economy, includes transforming raw agricultural products and moving them to retail points of contact. Although highly integrated and increasingly global, the food system does not provide equal access to all consumers and significant food losses occur at all stages of the supply chain. In this course, students will analyze causes of the market failure to provide equal access; explore solutions to minimize losses within the food system; and evaluate alternative supply chains, including values-based, direct to consumer, and food hubs.</p>			

140392	Mass Spectrometry, Proteomics, & Functional Genomics		
Subject:	Catalog Nbr:		
CRBU	BI793		

140478	Environmentally Sustainable Development		
Subject:	Catalog Nbr:		
CRBU	CAS304		
Environmentally Sustainable Development			

140483	Social Networks in Strategic Communication Planning		
Subject:	Catalog Nbr:		
CRBU	0737		
Social Networks in Strategic Communication Planning			

140491	Data Mining and Predictive Modeling	
Subject:	Catalog Nbr:	
CRHA	288	
Data Mining and Predictive Modeling		

140492	Intro to Programming in SAS	
Subject:	Catalog Nbr:	
CRHA	111	
Intro to Programming in SAS		

140493	Biological Database Systems		
Subject:	Catalog Nbr:		
CRBU	0768		
Biological Database Systems			

Course Bulletin

140539	Fundamentals of Writing About Nutrition and Health			
Subject:		Catalog Nbr:		
NUTR		0220		
2015 FALL		Primary	Christine Smith	Christine.Smith@tufts.edu
<p>This introductory course is designed to teach the basic skills necessary to write nutrition- and health-related papers that are clear, accurate, and audience-appropriate. It is a practical review of grammar, writing, and revision, and will enable students to develop a clear, fluent, and readable style. The course will include both individual and collaborative exercises and will require several writing and editing assignments. NUTR 220 is a prerequisite for NUTR 205 and NUTR 306. Enrollment limited to 20 students. NOTE: NUTR 220 may not be taken concurrently with NUTR 205 or NUTR 306.</p>				

140575	Systems Science in Public Health	
Subject:	Catalog Nbr:	
CRHA	0212	
Systems Science in Public Health		

140576	Research Synthesis of Meta-Analysis		
Subject: CRHA		Catalog Nbr: 0233	
Research Synthesis of Meta-Analysis			

140583	Built Environment and Human Health Energy Expenditure		
Subject:		Catalog Nbr:	
CRHA		0539	
Built Environment and Human Health Energy Expenditure			

140639	Sustainability and the Food Consumer			
Subject:		Catalog Nbr:		
NUTC		0263		
2015 SUMR		Primary	Sean Cash	Sean.Cash@tufts.edu
Every day, we make numerous choices about what to eat - and what not to eat. How do consumers and households make these choices, and how can the environments in which we make these choices be shaped to enhance sustainability without sacrificing our health or enjoyment of food? In this course we draw upon insights from economics, psychology, marketing, and nutrition to explore topics such as current food consumption patterns, determinants of food choice, the role of food labeling and market-based initiatives in enhancing sustainability, and the impact of regulation and "nudges" on consumer behavior around food.				

140640	Human Physiology			
---------------	-------------------------	--	--	--

Course Bulletin

Subject: NUTC	Catalog Nbr: 0268	2015 SUMR	Primary	Paul Leavis	paul.leavis@tufts.edu
<p>This course will introduce the functions of mammalian organisms as we understand them at various levels of organization - organ system, organ, cellular and subcellular levels. Our goal is to provide a broad overview of the fundamental properties and regulation of these systems so that the student can understand and relate this material to that learned in other nutrition science courses. This course will cover topics that are based upon biological and chemical concepts; however, no prior background in science is required. This course does not fulfill the degree requirement for NUTR 208.</p>					

140715	Muscle Biology in Health & Disease
Subject: CRBU	Catalog Nbr: SAR560
Muscle Biology in Health & Disease	

140781	Econometric Methods in Impact Evaluation
Subject: CRHA	Catalog Nbr: GHP228
Econometric Methods in Impact Evaluation	

140813	Consumer Behavior
Subject: CRBU	Catalog Nbr: MK856
Consumer Behavior	

140824	Food Justice: Critical Approaches in Policy and Planning
Subject: NUTR	Catalog Nbr: 0285
2015 FALL	Primary
Julian Agyeman	julian.agyeman@tufts.edu
<p>This class offers students different lenses, such as critical race theory to see how the intersectionality of race, class, gender, sexuality, ability and citizenship play out in the development of systemic structural and socio-spatial inequities and injustices in food systems. It develops an understanding and contextualization of the role of food justice activism within the broader narrative of the alternative food movement and offers emerging ideas about how policymakers and planners can take a role in increasing food justice beyond the more mainstream and ultimately contested notions of what is 'local' and 'sustainable.' The course will help participants chart their role(s) in advocating for 'just sustainability' as a defining factor in becoming food systems planners and policymakers. Prerequisite: Graduate standing or instructor consent. This course is cross-listed with UEP 0285.</p>	

Course Bulletin

140905	Biostatistics I			
Subject: NUTR		Catalog Nbr: 0206		
2015 FALL		Primary	Angie Rodday	Angie.Rodday@tufts.edu
2015 FALL		Primary	Farzad Noubary	Farzad.Noubary@tufts.edu
<p>This course introduces basic principles and applications of statistics to problems in clinical research. Topics covered include descriptive statistics, probability and random variation, sampling, hypothesis testing, proportions, measures of frequency, t-tests, chi-square tests, one-way analysis of variance, correlation, linear regression and nonparametric statistics. This course has a required Laboratory (NUTR 0206.1L) linked to the NUTR 0206.01 course and it is cross-listed with Sackler's CTS 0527. NOTE: Students cannot receive credit for both NUTR 206 Biostatistics I and its counterpart NUTR 207: Regression Analysis for Nutrition Research (Policy).</p>				

140942	Financial Management in Human Service Organizations		
Subject: CRBU		Catalog Nbr: 776	
Financial Management in Human Service Organizations			