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## Nutrition and Food Science (NUFD)

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## Nutrition & Food Science

NUFD110	Title	International Cuisine.
	Prerequisites	Nutrition and Food Science majors with concentrations in Food Systems (NUSY) and Applied Nutrition (NUFA).
	Special Fee	Special fee.
	Number and type of credits	2 hours lecture, 1.5 hours lab.
	Course Description	Introductory course for the study of cooking styles associated with the development of ethnic and international cuisine. The course will primarily focus on a particular culinary region to be determined, giving students a holistic understanding of how ingredients and food customs develop into a cuisine. The lessons learned will enable students to research and prepare complete menus reflective of the culture and food goods of a region with emphasis on local ingredients and authentic preparation methods.
NUFD130	Title	Introduction to Nutrition and Food Science Profession.
	Prerequisites	Nutrition and Food Science majors with concentration in Dietetics (NUFD), Food Systems (NUSY), Applied Nutrition (NUFA) or Food Science (NUFC); or Nutrition and Food Science minors (NUFS).
	Number and type of credits	1 hour lecture.
	Course Description	An introductory course which provides general information about nutrition and food science fields and acquaints students with professional requirements and opportunities.
NUFD150	Title	Food Composition and Scientific Preparation.
	Special Fee	Special fee.
	Number and type of credits	1 hour lecture, 3 hours lab.
	Course Description	An introduction to food science, nutrition and food preparation with emphasis on scientific principles involved in the characteristics of acceptable standardized products and product evaluation.
NUFD153	Title	Dynamics of Food and Society.
	Number and type of credits	3 hours lecture.
	Course Description	This course is designed to give students an opportunity to explore issues of food consumption through a study of: basic nutrition requirements; social/psychological factors influencing food behaviors; food acquisition through history as compared to contemporary situations; the impact on the ecological system in the quest for food; and the social, economical, and political aspects of the world food situation and potential means of

NUFD175	Title Special Fee Number and type of credits Course Description	alleviating the problems of hunger and nutrient deficiencies. Meets Gen Ed 2002 - Social Science, Social Science. Meets World Cultures Requirement. Soup and Sauce Technology. Special fee. 1.5 hours lecture, 1.5 hours laboratory. This course introduces the students to basic, traditional and modern culinary principles of volume stock soup and sauce preparation. The course primarily focuses on how to make traditional soups and sauces and then develop production strategies necessary to bring these products to modern markets. Lessons learned enable students to formulate soup and sauce recipes that are tasteful, flavorful and targeted to modern markets. Artisanal and modern packaging, safety and marketing strategies are emphasized. The course features lecture and hands-on laboratory experiences. Laboratory fee.
NUFD182	Title Number and type of credits Course Description	Nutrition. 3 hours lecture. This course is designed to give students a general knowledge of the components of the food we eat, the nutrients necessary for a healthy life, the functions
NUFD182	Course Description	of nutrients and the interrelationships and metabolism of nutrients. The factors which influence the recommended dietary intake of nutrients, and theories and guidelines for screening nutrition risk and disease and prevention are presented.
NUFD185	Title Course Description	Artisanal and Modern Baking Techniques. This course is designed for students who need baking skills to produce artisanal breads and pastries in traditional and modern bakery production environments. Students learn basic methods and techniques for producing ferments, dough and bakery emulsions. They design and produce bakery products including breads, baguettes, flat breads, tortillas, pies, cakes and pastries. The students also learn how to preserve, add flavor to, and extend the shelf life of mass-produced bakery products. The course features hands-on laboratory baking experiences. Laboratory fee.
NUFD192	Title Prerequisites	Nutrition with Laboratory. Nutrition and Food Science majors with concentrations in Dietetics (NUFD),

		Applied Nutrition (NUFA), Food Systems (NUSY) or Food Science (NUFC); and Business Administration majors with a concentration in Hospitality Management (BAHM); and Academy of Nutrition and Dietetics Certificate Program students (ADA).
	Special Fee	Special fee.
	Number and type of credits	3 hours lecture, 2 hours lab.
	Course Description	This course is designed to provide students with a general understanding of the components of the food we eat and the nutrients necessary for life. The functions of nutrients, their interrelationships, digestion, absorption and metabolism of nutrients are discussed. The factors, such as age, gender, ethnicity, physical activity, and environmental factors, which influence food intake and requirements of nutrients, are covered. Students learn to measure and evaluate their nutritional status and body composition using equipment used in laboratory and analyze their diets using computer software. They plan meals considering individual's nutritional requirements in the laboratory. Historical, national, and international issues regarding food and nutrition are presented.
NUFD240	Title	Sanitation Management and Food Microbiology: Certification.
	Prerequisites	NUFD 150 (may be taken as prerequisite or corequisite) or HOSP 250 (may be taken as prerequisite or corequisite).
	Number and type of credits	1 hour lecture.
	Course Description	Food safety for effective food service management. Understanding of Sanitation Risk Management, microbial food contaminants, and food safety regulations. Students will be entitled to take the "ServSafe Food Protection Manager Certification" examination.
NUFD253	Title	Quantity Food Purchasing and Production.
	Prerequisites	NUFD 182 or NUFD 192.
	Number and type of credits	3 hours lecture.
	Course Description	Determining needs, purchasing, storing, preparing and serving food in large volume.
NUFD254	Title	Foodservice Equipment and Facilities Design.
	Prerequisites	NUFD 350. Starting Winter 2016: NUFD 150.
	Number and type of credits	3 hours lecture.
	Course Description	Facilities layout and design. Selection of equipment based on design

		criteria. Purchasing standards and procedures.
NUFD255	Title	Meal Design and Management.
	Prerequisites	NUFD 150; and either NUFD 182 or NUFD 192. Current health insurance and negative PPD test required.
	Special Fee	Special fee.
	Number and type of credits	3 hours lecture, 1.5 hours lab.
NUFD255	Course Description	In this course, students learn about the design and analysis of meals for individuals and families, giving special emphasis to therapeutic nutrition and economic needs balanced with current lifestyles. Students also learn about principles involved in meal management and practice those in class labs.
NUFD257	Title	Principles of Food Science.
	Prerequisites	NUFD 150 and CHEM 113.
	Number and type of credits	3 hours lecture.
	Course Description	Students will learn basic principles of Food Science with emphasis on food processing and the chemical, physical and biological reactions occurring in food that affect nutritional, sensory and safety during processing and storage. This course is appropriate for students in the Food Science concentration and well as Food Systems, Biology, Chemistry and Health Sciences.
NUFD282	Title	Applied Nutrition in the Lifecycle.
	Prerequisites	NUFD 130 (may be taken as prerequisite or corequisite); and NUFD 182 or NUFD 192.
	Number and type of credits	3 hours lecture.
	Course Description	The application of basic nutrition knowledge to individuals in various life stages. Analysis of the physiological, biochemical, psychological and social factors that affect nutrient needs throughout the lifecycle.
NUFD285	Title	Nutrition in Chronic Disease Prevention.
	Prerequisites	NUFD 182 or NUFD 192.
	Number and type of credits	3 hours lecture.
	Course Description	This course uses a systems approach to understand the role of nutrition in influencing chronic disease outcomes among adults. The course focuses on five specific organ systems (immune, circulatory, skeletal, endocrine, and

excretory) and their role in influencing risks to diseases such as cancer, heart disease, osteoporosis, overweight/obesity, diabetes, and hypertension. The functions and metabolism of the major nutrients related to these diseases will be discussed in detail. Finally, the course will use an applied format (case studies) to help students demonstrate a basic knowledge of how reliable nutrition information is derived from scientific research, and be able to discern facts from fallacy in diet-related issues. Utilizing this knowledge, they will be able to work with community-based agencies in developing initiatives that help various population groups make healthier food choices and prevent chronic disease risks more effectively.

NUFD292	Title Prerequisites Number and type of credits Course Description	Applied Community Nutrition. NUFD 192. 3 hours lecture. This course provides a comprehensive overview of the impact of federal and state legislation on community nutrition service, dietetics practice, and health care within the United States. Students learn about the Nutrition Care Process, which is a systematic approach to providing quality nutrition care consisting of four distinct, interrelated steps entailing nutrition assessment, diagnosis, intervention, and monitoring/evaluation. The course demonstrates the application of this process. Nutrition informatics-the intersection of information, nutrition, and technology-is also presented. This course may be repeated for a maximum of 6 credits.
NUFD304	Title Prerequisites Number and type of credits Course Description	Introduction to Research. MATH 109; and NUFD 282 may be taken as prerequisite or corequisite. 3 hours lecture. A study of the basic concepts, principles and methodologies of scientific research and their application to the investigation of research problems in health, nutrition, and food science.
NUFD350	Title	Quantity Food Applications.
NUFD350	Prerequisites  Special Fee	NUFD 253 or HOSP 390; and junior or senior standing. Students must provide proof of current health insurance coverage and a negative PPD test.  Special fee.

	Number and type of credits	4 hours lab.
	Course Description	Capstone lecture and laboratory experiences to support basic concepts of quantity food purchasing and production. Students will learn hands-on skills to produce culinary products in large quantities. Laboratory assignments in the MSU Food Management laboratory and in functioning food service facilities off campus.
NUFD352	Title	Organization and Management of Foodservice Systems.
	Prerequisites	NUFD 282 may be taken as prerequisite or corequisite.
	Number and type of credits	3 hours lecture.
	Course Description	Principles of management, organizational structure, policy and decision-making. The menu in management, budgeting and cost control, sanitation and safety, personnel policies and management. Meets the University Writing Requirement for majors in Nutrition and Food Science.
NUFD353	Title	Catering and Banquet Management.
	Prerequisites	NUFD 350. Current health insurance and negative PPD test required. Starting Winter 2016: NUFD 253 or HOSP 390. Current health insurance and negative PPD test required
	Special Fee	Special fee.
	Number and type of credits	3 hours lecture.
	Course Description	This course is designed for those who need to know how food is prepared and then served in a catered or banquet setting. Students learn how to select and determine costs of catered food, plan a catered banquet and various culturally influenced serving styles.
NUFD357	Title	Experimental Food Science.
	Prerequisites	CHEM 113; NUFD 240 may be taken as prerequisite or corequisite.
	Special Fee	Special fee.
	Number and type of credits	1 hour lecture, 3 hours lab.
	Course Description	Study of the theory and applications of the chemical and physical changes involved in food processing, storage and preparation through objective and subjective analytical techniques.
NUFD360	Title	Urban Agriculture and Sustainable Food Systems.
	Prerequisites	NUFD 240.
	Number and type of credits	3 hours lecture, 1 hour lab.
	Course Description	In this service-learning course, students gain hands-on experience in urban

agriculture, including garden planning, growing and harvesting vegetables, and designing garden-based lesson plans. While gaining a foundation in agroecology and community development approaches, students critically assess the role urban agriculture plays in creating sustainable food systems and promoting community empowerment. By participating in a service-learning field experience, students develop a place-based understanding of the potentials and challenges confronting urban agriculture. May be repeated for a maximum of 12 credits.

NUFD367	Title	Fundamentals of Food Processing and Preservation.
	Prerequisites	NUFD 257.
	Number and type of credits	3 hours lecture.
	Course Description	Students learn general food processing and preservation principles and methods. They learn about emerging technologies for processing, packaging, and preserving foods and beverages, the appropriate use of food processing equipment, and quality assessment techniques for food processing and preservation. Students visit food processing facilities where they have hands-on experiences of the food processing principles learned in the class. Course activities include reading and analyzing scenarios that demonstrate the
NUFD367	Course Description	food scientist's role in the Integration and application of food processing and preservation concepts, principles, and skills in solving real-world food science problems.
NUFD377	Title	Sensory Evaluation of Foods.
	Prerequisites	NUFD 150, NUFd 257 and NUFd 357.
	Number and type of credits	3 hours lecture.
	Course Description	This course is an upper level Food Science course within the Nutrition and Food Science major. It expands and builds on previous food science courses and is designed to integrate and increase knowledge and skills in determining food quality and consumer acceptance via use of the human senses. The students will follow step by step procedures to learn how to evaluate food sensory characteristics such as appearance, color, flavor, odor, texture, and choices via sensory methods and techniques. Students will learn various sensory testing methods and statistical methods in evaluating food quality.



		May be repeated for a maximum of 9 credits.
NUFD382	Title	Advanced Nutrition.
	Prerequisites	CHEM 270 and NUFD 182 or NUFD 192. BIOL 243 may be taken as a prerequisite or a corequisite.
	Corequisites	BIOL 243 may be taken as a prerequisite or a corequisite.
	Special Fee	Special fee.
	Number and type of credits	4 hours lecture.
	Course Description	The physiological and chemical bases for nutrient needs, mechanisms through which nutrients meet the biological needs of humans, evaluation and interpretation of research findings.
NUFD384	Title	Nutrition in Developing Countries.
	Prerequisites	NUFD 282.
	Number and type of credits	3 hours lecture.
	Course Description	Nutritional problems; factors which contribute to malnutrition; effect of under-nutrition and malnutrition; methods of assessing nutrition status of a population and application of measures for improvement.
NUFD387	Title	Molecular Cuisine.
	Prerequisites	NUFD 240. Current health insurance and negative PPD test required.
	Special Fee	Special fee.
	Number and type of credits	2 hours lecture and 2 hours lab.
	Course Description	This course focuses on current gastronomic trends, utilizing innovative scientific approaches to food production. The course includes combining classical cooking techniques with state-of-the-art methods, deconstruction of recipes and scientific preparation of edible foods. Lessons learned will enable students to critically assess traditional food combinations to open up creative avenues of thinking for future food production and presentation strategies. The course features lectures and hands-on laboratory experiences.
NUFD392	Title	Food Systems and Agribusinesses Issues.
	Prerequisites	BSLW 235. Starting Winter 2016: NUFD 282.
	Number and type of credits	3 hours lecture.
	Course Description	This course provides an introductory examination of the systems of production, processes, and distribution of food throughout the food chain. The course places particular critical emphasis on the current agribusiness model through the examination of the role and impact of government and politics in food

		processes and distribution. Text, required readings, current events, guest speakers, and current journal articles are utilized in the course as the means to explore and evaluate the current agribusiness model, alternatives, and regulatory and policy influences.
NUFD395	Title	Applied Nutrition for Populations.
	Prerequisites	NUFD 182 or NUF 192 or NUF 282 or HLTH 240. Starting Winter 2016: NUF 182 or NUF 192; and HLTH 102; and HLTH 240 or NUF 282.
NUFD395	Number and type of credits	3 hours lecture.
	Course Description	This course is a comprehensive overview of the concepts and principles of nutrition, especially as it relates to using a population-based approach to preventing and managing chronic disease in the community. In this course, an emphasis is placed on the distinct chronic disease states of overweight/obesity, heart disease, hypertension, diabetes, cancer, and HIV/AIDS. Students learn about the socio-ecological model and the various personal, social, environmental, and policy-related factors that influence prevalence rates of these diseases among diverse population groups. Through this course, students also learn to apply their knowledge of nutritional principles, make important and practical connections between diet and disease in the community, and improve their oral and written communication skills.
NUFD405	Title	Concepts of the Sommelier.
	Prerequisites	NUFD 150; must be over 21 years old; departmental approval. Starting Winter 2016: NUF 357 or HOSP 390; must be over 21 years old; departmental approval
	Special Fee	Special fee.
	Number and type of credits	2 hours lecture, 2 hours lab.
	Course Description	This course provides an overview of the wine producing regions of the world and the elements of wine appreciation and service. Students participate in several tasting sessions in which they analyze wine through three sensory attributes: appearance, smell and palate sensation. Through blind tasting and sensory deduction, the students learn to compare and contrast wine quality and flaws. The students learn to recognize the diversity of the world of wine production by studying variables such as grape variety, climate, soil, and local approaches to grape growing and wine making. Additionally, students

NUFD409	Title	apply the principles of the wine service.
	Prerequisites	Internship in Nutrition and Food Science.
	Number and type of credits	NUFD 352 and senior standing or minimum of 24 credits in the major. Nutrition and Food Science majors only. 2.67 GPA required.
	Course Description	4 - 8 hours other. Opportunity to work as an intern in a professional setting related to food management, nutrition or dietetics related profession. Application available from advisor.
NUFD412	Title	Nutrition Education Techniques.
	Prerequisites	NUFD 282; and NUFD 304 may be taken as prerequisite or corequisite.
	Number and type of credits	3 hours lecture.
	Course Description	Procedures and techniques for developing programs and teaching nutrition to a variety of target populations. Individual and group methods emphasize innovation. Field studies.
NUFD456	Title	Research in Foods.
	Prerequisites	NUFD 357.
	Special Fee	Special fee.
	Number and type of credits	1 hour lecture, 3 hours lab.
	Course Description	Scientific method in the design and execution of experimental food studies and in the interpretation and evaluation of results. Independent laboratory research.
NUFD466	Title	Food Product Development.
	Prerequisites	NUFD 367.
	Number and type of credits	3 hours lecture.
	Course Description	In this course students will learn to integrate knowledge and skills from previous food science and nutrition courses to develop new, nutritious, safe and sensory acceptable food products. Students will develop oral and written reports that will document information on current food trends, shelf life stability, nutrition labeling, quality assurance parameters, marketing, sensory evaluation, and packaging of food products.
NUFD470	Title	Selected Topics in Nutrition and Food Science.
	Prerequisites	Departmental approval. Starting Winter 2016: NUFD 304 or departmental

	Course Description	approval This course provides students with the opportunity to expand their professional preparation and expertise about selected topics in nutrition and food science not covered in other undergraduate courses. These topics will be based on significant, emerging nutrition and food problems and issues, on new scientific developments and discoveries pertinent to the nutrition and food science professions. May be repeated once for a maximum of 6.0 credits.
NUFD482	Title Prerequisites Number and type of credits Course Description	Nutrition Counseling. NUFD 304; and NUFD 412 may be taken as prerequisite or corequisite. 3 hours lecture. This course offers practical experience dealing with the principles of marketing, adult learning, helping skills, assessment, documentation, and evaluation as related to weight control and the role of food in promotion of a healthy lifestyle. Six hours of clinical experience is required.
NUFD488	Title Prerequisites Special Fee Number and type of credits Course Description	Medical Nutrition Therapy. NUFD 182 or 192 and NUFD 382 and BIOL 243 and CHEM 270. Special fee. 4 hours lecture. This course enables students to apply nutrition science to the prevention and treatment of human diseases and medical conditions. Nutrition assessment, diet modification, and specialized nutrition support, such as enteral and parenteral feeding, are covered.
NUFD489	Title Prerequisites Course Description	Externship in Food and Nutrition. NUFD 253 and NUFD 382. A supervised experience in selected quantity food services, agencies, clinics or organizations involved in foods and nutrition problems of the community.
NUFD490	Title Prerequisites  Number and type of credits Course Description	Nutrition and Food Science Professional Seminar. NUFD 130 and NUFD 304; Restricted to Nutrition and Food Science majors with concentrations in Dietetics (NUFD), Food Systems (NUSY), Food Science (NUSC), or Applied Nutrition (NUFA). 1 hour seminar. A capstone course which provides skills necessary for beginning professionals in nutrition and food science fields.
NUFD499	Title	Medical Nutrition Applications.

	Prerequisites	NUFD 382; and NUFD 488 may be taken as prerequisite or corequisite.
	Number and type of credits	2 hours lecture.
	Course Description	Provides an overview of the concepts, principles and methodology for nutrition assessment. Emphasis is placed on practical application and case models.
NUFD501	Title	Principles of Nutrition.
	Number and type of credits	4 hours lecture.
	Course Description	Topics include advanced study of the biochemical and physiological aspects of human nutrition with emphasis on vitamins, minerals, lipids, protein, carbohydrate, water and energy.
NUFD506	Title	Research and Evaluation in Nutrition and Food Science.
	Number and type of credits	1 - 3 hours lecture.
	Course Description	This course gives students a foundation in the design of research in Nutrition and Food Science, and in the analysis of research data in these fields. Students critically evaluate, interpret, and summarize reports of research in articles published in health, nutrition and food science journals. They develop knowledge and skills for posing research questions in Nutrition and Food Science, designing studies to answer the questions, detecting threats to validity of the research, identifying appropriate techniques for analyzing data, performing nutrition/food science data analyses, and reporting on the
NUFD506	Course Description	results in a format suitable for publication in an academic journal.
NUFD507	Title	Research in Nutrition and Food Science.
	Prerequisites	NUFD 304; Nutrition and Food Science (NUFS) majors only. Starting Winter 2016: NUFD 501; and NUFD 506 may be taken as prerequisite or corequisite.
	Special Fee	Special fee.
	Number and type of credits	3 hours lecture.
	Course Description	Designed to provide basic research and statistical literacy so that students can develop a research proposal in its entirety in nutrition and food science.
NUFD508	Title	Independent Study in Nutrition and Food Science.
	Prerequisites	Departmental approval.
	Course Description	An opportunity to study in-depth areas of nutrition and food science which are not offered in the regular curriculum. May be repeated for a maximum of 6.0 credits as long as the topic is different.

NUFD509	<p>Title</p> <p>Prerequisites</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Research Seminar.</p> <p>NUFD 507.</p> <p>3 hours seminar.</p> <p>Carrying out a research study on specific problems of limited scope. Work to be taken in nutrition and food science.</p>
NUFD557	<p>Title</p> <p>Special Fee</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Food Safety.</p> <p>Special fee.</p> <p>3 hours lecture.</p> <p>This course is offered for those who must understand food sanitation and safety for effective food management and production. The course emphasizes the understanding of food safety and food sanitation risk management and microbial food contaminants as it encompasses changing federal and state compliance regulations including Hazard Analysis Critical Control Point (HACCP), good manufacturing practices and Safe, Sanitary Operational Procedures (SSOP).</p>
NUFD560	<p>Title</p> <p>Prerequisites</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Advanced Nutrition Counseling for Diverse Population Groups.</p> <p>NUFD 501 may be taken as prerequisite or corequisite.</p> <p>3 hours lecture.</p> <p>Topics include ethnic variations in health care beliefs; culturally sensitive nutrition counseling skills, developmental skills and dietary behaviors of children, adolescents and aging adults and nutrition counseling approaches for these age groups. Six hours of nutrition counseling clinical experience required.</p>
NUFD570	<p>Title</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Selected Topics in Nutrition and Food Science.</p> <p>1 hours lecture.</p> <p>This course provides students with the opportunity to expand their professional preparation and expertise about selected topics in nutrition and food science not covered in other graduate courses. These topics will be based on significant, emerging nutrition and food problems and issues and on new scientific developments and discoveries pertinent to the nutrition and food science professions. Such issues could include sports nutrition, nutrition in complementary care, environmental nutrition, advanced clinical nutrition, research methodology, gerontology nutrition, and sustainable food systems.</p>

NUFD572	Title Number and type of credits Course Description	Food Systems: Politics and Ecology. 3 hours lecture. In this course, students engage in a comprehensive examination of the systems of production, processes, and distribution of food throughout the food chain. They give particular attention to critically examining the agribusiness model through analysis of the role and impact of government and politics in food processes and distribution. To enhance their understanding of the competing ideologies and micro and macro food economic concepts and effects, students
NUFD572	Course Description	explore current events and learn from guest speakers as well as reading current journal articles.
NUFD573	Title Number and type of credits Course Description	Food and Nutrition Regulations and Compliances. 3 hours lecture. This course will provide an in-depth understanding of the legal and regulatory compliances of food and dietary supplement products in the United States. Topics will cover issues such as food and food safety regulation, regulatory compliance, Hazard Analysis Critical Control Points (HACCP), International Standards Organization (ISO), the regulation of Genetically Modified Organisms (GMOs), food additives, food labeling, dietary supplements and, more recently, the protection of the food supply from bio or chemo terrorism or "food security."
NUFD577	Title Prerequisites Number and type of credits Course Description	Social Marketing in Nutrition. NUFD 501 may be taken as prerequisite or corequisite. 3 hours lecture. Social Marketing in Nutrition course entails a comprehensive view of the applications of social marketing in the design, implementation, and evaluation of nutrition education programs. Social marketing is an audience-centered approach that focuses on multiple, reinforcing channels of communication along with environmental changes to influence behavior. Highlights of social marketing will be presented in light of its usefulness and applicability to nutrition education.
NUFD580	Title Number and type of credits	Current Applications in Nutrition. 3 hours lecture.

	Course Description	This course enables students to develop detailed and in-depth knowledge of recent findings in human nutrition and to apply this knowledge by learning how to write a grant application for funding. Emphasis is placed on the critical review and analysis of recent developments in nutrition research and developing a successful proposal.
NUFD581	Title Prerequisites Number and type of credits Course Description	Nutrition Education. NUFD 501 may be taken as prerequisite or corequisite. 3 hours lecture. This course is designed to provide students with skills for developing, implementing, evaluating and funding nutrition education programs for populations with various demographic characteristics.
NUFD583	Title Prerequisites Number and type of credits Course Description	Nutritional Aspects of Food Processing and Handling. NUFD 501 may be taken as prerequisite or corequisite. 3 hours lecture. A course designed to study the theory and practice of evaluating food processing from a nutritional standpoint and to compare food availability with the effects that various kinds of processing have on nutrient content. This course is appropriate for graduate students and selected seniors in food and nutrition, food service management, biology, chemistry, and health sciences.
NUFD585	Title Prerequisites Number and type of credits Course Description	Food and Nutrition Issues. NUFD 501 may be taken as prerequisite or corequisite. 3 hours lecture. An investigation of current issues in food and nutrition with an emphasis on consumer, food industry, government and professional perspectives.
NUFD587	Title Prerequisites Number and type of credits Course Description	Practicum. NUFD 501 and NUF 595. Departmental approval. 3 hours practicum. This practicum provides students in nutrition, food science and food management with planned supervised experiences in a variety of selected business, agencies or organizations offering nutrition education or food-related services. Students engage in experiential and in-class work at a
NUFD587	Course Description	specific corporate setting, agency or organization, depending on their



NUFD588	<p>Title</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>professional goals and previous experiences. They work productively with business, agencies and/or organizations for a total of 90 hours.</p> <p>Organizational Behavior in Food Businesses.</p> <p>3 hours lecture.</p> <p>In this course, students critically assess principals of management currently being used in the food industry. In doing so they learn novel approaches to organizational structure and policy and decision-making in the manufacturing, retail restaurant and institutional food sectors. Students analyze food systems and the economic and production activities of food businesses by using economic theories and case studies.</p>
NUFD590	<p>Title</p> <p>Prerequisites</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Nutrition Policy.</p> <p>Graduate Standing.</p> <p>3 hours lecture.</p> <p>This course introduces students to theories, models, and analytic frameworks for understanding the dynamics of policy making and evaluation processes that address nutrition policy problems. Students develop a project for evaluating policy decision-making, outcomes and impacts. Case studies are used as a teaching tool to underscore policy lessons, facilitate small group discussion, and introduce students to several policy initiatives (i.e., School Meal Programs, Food stamps, Special Supplemental Nutrition Program for Women, Infants and Children).</p>
NUFD595	<p>Title</p> <p>Prerequisites</p> <p>Number and type of credits</p> <p>Course Description</p>	<p>Principles of Food Science.</p> <p>A college level chemistry course or permission of instructor.</p> <p>3 hours lecture.</p> <p>This course provides students with advanced knowledge in food science, giving them in-depth exposure to key elements of this growing field of study. Students learn about principles and processes in chemistry and microbiology that are essential to work in food science. They explore the processing of food and food products. They examine concepts of food preservation, the packaging and marketing of foods and global food issues.</p>
NUFD668	<p>Title</p> <p>Prerequisites</p>	<p>Nutrition Assessment.</p> <p>Anatomy and Physiology, Chemistry, Biochemistry, Nutrition, or NUFD 501 (Principles of Nutrition), or departmental approval. Starting Winter 2016: NUFD 501 or departmental approval.</p>

	Number and type of credits	3 hours lecture.
	Course Description	This course covers the systematic principles and comprehensive steps of human nutrition assessment. This includes screening of nutritional status, planning nutrition intervention as well as implementation and evaluation of nutrition intervention processes. The tools and techniques used in nutrition assessment will be utilized by the students in this course.
NUFD698	Title	Master's Thesis.
	Prerequisites	Departmental approval.
	Course Description	Independent research project done under faculty advisement. Students must follow the MSU Thesis Guidelines, which may be obtained from the Graduate School. Students should take NUF 699 if they don't complete NUF 698 within the semester.
NUFD699	Title	Master's Thesis Extension.
	Prerequisites	NUFD 698.
	Course Description	Continuation of Master's Thesis Project. Thesis Extension will be graded as IP (in Progress) until thesis is completed, at which time a grade of Pass or Fail will be given.
PALG210	Title	Law and Litigation.
	Number and type of credits	3 hours lecture.
	Course Description	An introduction to the legal system with a focus on the New Jersey court
PALG210	Course Description	system. Review of substantive areas of law and application of procedural concepts from initiation of a civil lawsuit through entry of judgment. The unique role and function of attorney and paralegal in the process of client interviewing, ethical considerations, investigation and preparation for trial. Drafting of pleadings and other documents used in litigation and trial.
PALG301	Title	Criminal Law and Procedure.
	Prerequisites	PALG 210 or JUST 200 or JUST 201 or departmental approval.
	Number and type of credits	3 hours lecture.
	Course Description	Legal concepts of criminal law and their application to criminal procedure. Contrast between civil law and criminal law. Study of crimes against persons, property and the public. Searches and seizure, arrest and interrogation. Students may take PALG 301 or POLS 321 but not both courses as part of the