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Handbook for the Master of Public Health Degree Program *Department of Nutrition* 2014—2015

I. INTRODUCTION

A. *Program Overview*

The Master of Public Health (MPH) in Nutrition was the first degree offered by the Department of Nutrition. Since the first three students received their MPH degrees in 1951, the program has grown with an average of 20-24 graduating per year. The program is recognized throughout the United States for the excellence of its training in public health nutrition. The Coordinated Master's Program in Public Health Nutrition received initial accreditation in 1987. The program was reviewed and reaccredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) for 10 years in 2005. ACEND is the body within the Academy of Nutrition and Dietetics that is recognized by the United States Department of Education and the Council for Higher Education Accreditation as a reliable authority on the quality of nutrition/dietetics education programs. Additional information on ACEND can be obtained from The Accreditation Council for Education in Nutrition and Dietetics, Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6995; phone (321) 899-0040 ext. 5400. Successful completion of the Coordinated Master's Program (MPH/RD track) leads to both the MPH degree and eligibility to take the examination to become a registered dietitian (RD).

Nutrition is recognized as one of the most important environmental determinants of health throughout the life cycle. It is a key factor in successful pregnancy outcomes, in the physical and mental development of infants and children and in promoting health at all ages. Current research stresses nutrition and diet as critical factors in prevention and treatment of major diseases, which disable or kill: obesity, heart disease, cancer, stroke, diabetes and osteoporosis. The safety, quality, quantity and distribution of local, national and world food supplies are major public policy issues.

Completion of the MPH program provides the graduate with a strong background in the science and practice of public health along with a sound knowledge of the science of human nutrition and food science. The professional MPH tracks provide a working knowledge of nutrition programs and services gained through clinical nutrition experiences and public health nutrition management experiences, which augment classroom experiences.

We offer two tracks: 1) MPH with combined Registered Dietitian (RD) component and 2) MPH (this does not include any RD component).

Students enrolled in either of the MPH professional tracks can choose one concentration area to focus on during their final field experience (NUTR 730, Advanced Nutrition Field Experience). The topic of the student's Master's Paper will also reflect their choice of concentration. The two concentration areas offered are: **public health nutrition** or **clinical nutrition**. Students will choose their initial selection of concentration area during their second fall semester of the program.

The mission of the Coordinated Master's Program in Public Health Nutrition is to prepare future leaders in nutrition through effective classroom education and practical community and clinical experiences both locally and globally.

Three program goals have been identified:

Goal #1: To provide an educational environment that enhances students' critical thinking, problem solving and decision-making skills, producing graduates that will lead the field of nutrition (public health, clinical, policy advocacy and nutrition research).

Goal #2: To prepare competent entry-level practitioners who can assess and support the nutritional needs of individuals and communities.

These goals are measured annually. The outcome data measuring program achievement of these goals is available, upon request. Please contact the Program Director if you would like this information.

The MPH/RD track leads to the MPH degree and completion of the registered dietitian (RD) requirements. The MPH/RD track qualifies graduates for careers in nutrition and dietetic experts who manage nutrition programs in public health agencies, hospitals, clinics, educational institutions, and industry. Recent graduates are working in federal, state, and local public health agencies, Health Maintenance Organizations, health promotion/wellness programs, hospitals, and in the nutrition advocacy and legislative and public policy arenas. Others have earned doctoral degrees and pursued academic careers in research and teaching.

The MPH track is a program for individuals who do not intend to practice nutrition/dietetics in the United States and those who already have a clinical credential. This includes some international students, students with a medical or dental degree who desire breadth of knowledge of the field of public health with a specialization in nutrition, and students who are already registered dietitians. Students choosing this track do NOT complete RD requirements.

Students enrolling in the MPH Program may wish to consider completing a certificate program concurrently. Please visit the SPH GPS website for a list of available programs.

Students have found the Global Health Certificate to be of particular interest to the field of nutrition. (<http://sph.unc.edu/global-health/ggg-certificate-in-gh/>)

B. Admission Requirements

Applicants must hold an appropriate baccalaureate degree from a four-year college or university, or its international equivalent with a 3.0 GPA or better. Applicants are required to submit Graduate Record Examination (GRE) scores. Physicians and dentists may submit Medical or Dental Aptitude Test scores in lieu of GRE scores. All international applicants — except those from countries where English is the SOLE OFFICIAL language of instruction (Australia, Bahamas, Barbados, Canada — except Quebec, England, Ghana, Ireland, India, Jamaica, Kenya, New Zealand, Nigeria, Scotland, St. Vincent and the Grenadines, Trinidad, Tobago, Uganda and Wales) OR those who have received or will receive a degree from a university in the United States — must submit an acceptable,

official (reported directly from ETS) Test of English as a Foreign Language (TOEFL) score. If you are currently enrolled at a U.S. institution, you must submit an official transcript or verification of degree candidate status from that institution to qualify for a TOEFL waiver. If the degree or an official verification is not received, the TOEFL score will again be required. The minimum score accepted by the Graduate School is 550 for the paper-based total (a minimum score of 50 on each section), 79 for the internet-based, and a 7 on the IELTS exam.

In addition to satisfying the TOEFL requirement, all new international students must take the University's English Proficiency Test before registering for their first semester of study, unless they have been awarded a degree from a U.S. institution or are a resident of a country where English is the language of instruction. All international applicants must also complete a financial certificate.

All applicants are required to submit a personal statement stating their reasons for applying to this program (see application for specific questions). The statement should identify career goals and discuss why the student is a good "fit" for the UNC MPH program. Applicants should also include a resume, which details paid and volunteer experiences. Applicants are encouraged to have work and/or volunteer experience in areas relevant to nutrition, health or other areas related to management, education, fitness or the social services and public health.

The following prerequisite course requirements *must* be completed prior to enrollment:

- Chemistry through organic
- Human Physiology
- General Psychology
- Biochemistry
- Microbiology with Lab
- Intro. to Anthropology or Sociology
- Human Anatomy
- Human Nutrition

We highly recommend that you submit online your COMPLETED application prior to **December 1st**. The MPH Committee begins making admission offers among completed applications in early January on a rolling basis. Applications received after **December 1st** will be considered until the class is filled. No applications will be accepted by the Graduate School after **January 13th**.

Applications received prior to **December 16th** will be eligible for consideration for Graduate School fellowships (<http://gradschool.unc.edu/funding/>).

C. Time Required

A graduate student has five calendar years from the date of first registration in the Graduate School to complete the Master's degree. Typically, it takes 28-months to complete the MPH/RD including summers sessions and 24-months to complete the MPH. Full time registration is considered to be a minimum of nine credits per semester, but 12-15 credits per semester is a more usual course load. MPH/RD students build a knowledge base in foods and nutrition, participate in clinical and advanced nutrition field experiences, and take elective courses. MPH students complete many of the same courses as MPH/RD students however they complete only one ten-week field experience. Students may also choose to extend their program to take additional elective coursework or to complete a research project.

II. THE FACULTY ADVISOR

A faculty adviser is assigned to each student. At a minimum, this academic advisor meets with the student during orientation and during each pre-registration period to discuss courses that meet Department and School of Public Health requirements and to review grades from the prior registration period. Student should obtain their faculty advisor's signature on the MPH Individual Student Progress Form (Appendix E). We view student/faculty communication as a mutual responsibility. Meetings should be scheduled periodically as required by the student or the advisor. The advisor serves as the major source of guidance to the student in the areas of coursework, field placement and career planning. In addition to guidance from an advisor, students are encouraged to consult with other faculty members, in order to benefit from the diversity of faculty research and experience.

III. SCHOOL OF PUBLIC HEALTH AND DEPARTMENT OF NUTRITION REQUIREMENTS

All candidates for the MPH degree in the School of Public Health are required to successfully complete:

- 1) A major in one of the departments or curricula of the School, by satisfying whatever requirements that department or curriculum may set.
- 2) At least four health-related courses in at least three different departments or curricula other than the major. No portion of this requirement may be waived.
- 3) A minimum of 42-credit hours.

In addition to these requirements, the Department of Nutrition requires that MPH candidates shall successfully complete approved courses in each of five areas:

- | | |
|---------------------------------|-----------------------------------|
| 1) Biostatistics | 4) Environmental Health Sciences |
| 2) Epidemiology | 5) Social and Behavioral Sciences |
| 3) Health Policy and Management | |

A. *Courses Recommended for Nutrition MPH students to meet School of Public Health Requirements (see Appendix A)*

BIOS 600	<i>Principles of Statistical Inference (3)</i>
EPID 600	<i>Principles of Epidemiology (3)</i>
HPM 600	<i>Introduction to Health Policy and Management (3)</i>
ENVR 600	<i>Environmental Health (3)</i>
HBEH 600	<i>Social and Behavioral Sciences in Public Health (3)</i>

B. Required Coursework for the MPH Tracks

MPH/RD in Nutrition.

The MPH/RD is a twenty-eight month program preparing Public Health and Clinical Dietitians for careers in clinical nutrition or public health and community leadership. This program includes coursework and experiences that satisfy both the Foundation Knowledge and Competencies/Learning Outcomes Requirements (Appendix C) of the Academy of Nutrition and Dietetics to prepare students for eligibility to take the examination for dietetic registration.

This twenty-eight month program is also for students who have received a Verification Statement from an ACADEMY Accredited/Approved Didactic Program in Dietetics.*

**An official Verification Statement must be given to the Student Services Manager: Mrs. Joanne Lee. Field hours for both concentrations are highlighted in red.*

MPH-RD in Nutrition:

Fall Semester

		<u>Credits</u>
BIOS 600	Principles of Statistical Inference	3
NUTR 611	Nutrition Across the Lifecycle	3
NUTR 630	Nutrition Communication, Counseling and Culture	3
HBEH 600	Social and Behavioral Sciences in Public Health	3
Total Semester Credits		12

Spring Semester

ENVR 600	Environmental Health (online)	3
EPID 600	Principles of Epidemiology	3
NUTR 400*	Introduction to Nutritional Biochemistry	3
NUTR 640	Medical Nutrition Therapy I: Chronic Disease Management	3
Total Semester Credits		12

Summer Session I (12-weeks)

NUTR 720	Public Health Nutrition Management I	
Section 001	Field Hours: 336 hours (324 community/PH Nutrition, 6 hours WIC, 6 hours of Schools)	
Total Semester Credits		5

Fall Semester

NUTR 600	Human Metabolism: Macronutrients	3
NUTR 642	Medical Nutrition Therapy: Acute Disease Management	3
NUTR 725	Public Health Nutrition Management II	3
NUTR 735	National Nutrition Issues	1
Total Semester Credits		10

Spring Semester

HPM 600	Introduction to Health Policy and Management (online)	3
NUTR 620	Human Metabolism: Micronutrients	3
NUTR 650**	Food Science, Production and Meal Preparation	2
NUTR 650L**	Food Science, Production and Meal Preparation Lab	1
NUTR 728	Nutrition Translational Research and Application (Optional or Elective)	2-3
NUTR 813	Nutritional Epidemiology	3
Total Semester Credits		12-15

April/	Food Systems Management Workshop
May	Comprehensive Examination

Summer Session I

NUTR 710	Clinical Nutrition Experience	5
	Field Hours: 480 hours (432 clinical/hospital-acute/critical care, 8 hours of long term care and 40 hours of foodservice)	
	Total Semester Credits	5

Fall Semester

NUTR 730	Advanced Nutrition Field Experience	6
	Field Hours:	
	PH Concentration: 400 hours PH Nutrition OR	
	Clinical Nutrition Concentration: 400 hours Clinical/Hospital	
NUTR 992	Master's Paper	3
	Total Semester Credits	9

***Students may opt to take an exemption exam for Nutrition 400 early in the Fall Semester. Contact Student Services Manager to schedule an examination date.**

****Students who are RDs or have a verification statement may take an elective or a core public health course in place of this course.**

MPH in Nutrition:

The MPH is a twenty-four month program for students who want an MPH degree but do not want/need the RD credential to practice. This includes some international students, medical or dental students, registered dietitians (RD) and those with clinical degrees (R.N., M.D., D.D.S., D.V.M.).

Fall Semester

		<u>Credits</u>
EPID 600	Principles of Epidemiology	3
HBEH 600	Social and Behavioral Sciences in Public Health	3
NUTR 611	Nutrition Across the Lifecycle	3
NUTR 630	Nutrition Communication, Counseling and Culture	3
	Total Semester Credits	12

Spring Semester

NUTR 400*	Introduction to Nutritional Biochemistry*	3
NUTR 640**	Medical Nutrition Therapy I: Chronic Disease Management**	3
ENVR 600	Environmental Health (online)	3
	Elective (Optional)	3
	Total Semester Credits	9-12

Summer Session I

NUTR 720	Public Health Nutrition Management I	2
Section 002	(Didactic and Community Assessment Assignment)	
	Total Semester Credits	2

Fall Semester

BIOS 600	Principles of Statistical Inference	3
NUTR 600	Human Metabolism: Macronutrients	3
NUTR 725	Public Health Nutrition Management II	3
NUTR 735	National Nutrition Issues	1
	Elective (Optional)	3
	Total Semester Credits	10-13

Spring Semester

HPM 660	International and Comparative Health Systems	3
NUTR 620	Human Metabolism: Micronutrients	3
NUTR 813	Nutritional Epidemiology	3
NUTR 728	Nutrition Translational Research and Application (Optional)	2
Total Semester Credits		9-11

May Comprehensive Examination

Summer Session I

NUTR 730	Advanced Nutrition Field Experience Field Hours: 320 (eight weeks full-time)	6
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Summer Session II

NUTR 992	Master's Paper (Session II)	3
Total Semester Credits		9

***Students may opt to take an exemption exam for Nutrition 400 early in the Fall Semester. Contact Joanne Lee for scheduled examination date.**

****Students who are RDs or have a verification statement may take an elective or a core public health course in place of this course.**

C. *MPH Experiential Placement Philosophy and Policy*

All Department of Nutrition MPH students are required to participate in a set of course requirements and experiential requirements. There are three groups of courses: *a) public health core courses that orient all MPH students to the public health perspective and use of population based data management; b) in-depth knowledge of biological, clinical and behavioral aspects of human nutrition and food selection; and c) understanding of nutrition problems in the community and application of public health to their solutions.* All students are required to take core courses or the approved equivalent in Biostatistics, Epidemiology, Environmental Sciences, Health Policy and Management and Health Behavior and Health Education or approved substitute courses.

The curriculum for the MPH student in Nutrition is designed to prepare public health dietitians/nutritionists and clinical dietitians with the knowledge and skills to serve in leadership positions. As described in greater detail in section D, Nutrition MPH students participate in a variety of practice placements designed to provide the opportunity for each student to experience and practice basic clinical and public health skills.

During the first summer of study, students in the MPH/RD program are placed for 9-weeks (336 hours) in a concurrent Public Health Nutrition Management experience, which is at a state or local health agency. Students gain skills in community assets mapping and grant writing, as well as team building and partnering.

Students participate in a 3 and one-half day Washington, DC seminar between fall and spring semesters in which they meet with personnel in the legislative, advocacy, non-profit, and federal agency areas with the objective to better understand current topics of policy interest and methods of policy development and analysis.

During the second summer of study, students in the MPH/RD program are placed for 12-weeks, full time (40 hours/week, 480 hours) in a hospital (5-credits). The clinical field placement experience is designed to enhance clinical decision-making and to provide specialty knowledge and skills required of those practicing clinical dietetics. Forty (40) foodservice hours are also included in this hospital-based experience.

The final semester of study, each student is placed in an individualized Advanced Nutrition Field Experience lasting 10-weeks/400 hours of full time work (6-credits). Nutrition 730 is the culminating course for Nutrition MPH students. This 10-week Advanced Nutrition Field Experience follows completion of required coursework. This experience may be done domestically or internationally. Students choosing an international experience should note that the experience can only contribute 300 of the 400 hours of internship. The remaining 100 hours need to be completed domestically and should prepare the student for their international experience. Preceptors for international experiences must be a nutrition professional and ideally, a Registered Dietitian with U.S. credentials. This experience provides students with the opportunity to integrate theory with practice, facilitate the transition from student to professional status, and clarify short-term career objectives in a supportive and nurturing environment. Each student is expected to participate in a variety of activities as well as take major responsibility for one major project planned with the Field preceptor and faculty advisor. Public Health Nutrition and Clinical Nutrition field experiences are jointly selected (between advisor/student) according to the student's needs, interests, career goals, and experience.

D. Field Experiences

The completion of the clinical, public health nutrition management field placement, and advanced nutrition field experiences involves traveling from campus to the various sites. Students assume full responsibility for their own safety in the course of this travel to and from the sites. Students should also be prepared to cover the cost of this travel although some financial assistance may be provided (ex. AHEC). Students are also responsible for any injury that occurs during field placements. During these experiences, students participate in educational activities that further their learning. Students are not placed in sites to replace employees.

Public Health Nutrition Management Experience (MPH-RD and MPH)

Students enrolled in NUTR 720 will complete the didactic portion of the course prior to their field experiences. Students are assigned to a state or local health agency for their community field experience under the direction of a public health nutritionist/dietitian preceptor. These preceptors are considered field faculty in the Department of Nutrition. Course objectives are: (1) to introduce students to the organization and delivery of nutrition services in a local health agency; (2) to create an awareness of the interrelated roles of public health professionals in a local health agency; (3) to obtain an overview of the health status of a community by conducting a community assessment; (4) to use the community assessment to describe priority community nutrition needs for intervention; (5) to provide baseline information to develop a nutrition program and grant proposal; (6) to work with a public health nutritionist and observe him/her as a role model; and (7) to provide experience in

delivering public health nutrition intervention. Students spend a total of 336 hours in the field during the summer sessions. Five credits are awarded for NUTR 720.

Field preceptors are identified annually depending on the availability of the health agency. A Community Field Preceptor's Conference is held each fall to orient concurrent experience preceptors to course objectives and the educational philosophy of the department. This conference is also used to begin to plan field experiences with each student. **This five-credit course carries a field fee of \$107.00, in addition to summer semester tuition and fees.**

Food Systems Management Workshop

This workshop will assist students in preparing for their foodservice rotations. Core principles in menu planning, purchasing, receiving, storage and food production will be reviewed. Students will also learn key principles in food safety and sanitation as well as facility planning and design. This workshop will take place over several days. There are no field hours directly associated with this workshop but it is required prior to the clinical nutrition experience as the content prepares students to complete their foodservice modules during their hospital hours.

Clinical Nutrition Experience [NUTR 710] (MPH-RD)

This course provides learning experiences to provide basic competencies in clinical nutrition and dietetics practice. The student develops an understanding of the role of the clinical dietitian, the opportunities and constraints of the health care setting in providing nutritional care to patients and awareness of the need for continuity of patient care between the health care facility and the public health agency. A manual on the Clinical Nutrition Experience contains in-depth details about this experience.

Criminal background checks, as well as, drug screening will be conducted prior to the start of this 12-week (480 hours, 40 hours per week). This supervised practice experience spans two consecutive summer sessions. In 2013, course field sites ranged from local facilities such as UNC-Hospitals to other sites in North Carolina such as Asheville, Greenville, Charlotte and Wilmington. Students rotate through various clinical services, (e.g., medical, surgical, pediatrics, cardiology, long-term care and renal) and report to the dietitian responsible for the nutritional care of patients on each unit. To relate classroom instruction [NUTR 620, NUTR 630] to the course, a clinical instructor meets with the students on-site and observes them as they conduct nutritional screenings, nutritional assessments and nutrition education. In addition to other assignments, each student is required to present a written case study on one patient to integrate applied and theoretical aspects of nutrition into a comprehensive approach to patient care. **This five-credit course carries a field fee of \$450.00, in addition to summer semester tuition and fees.**

Advanced Nutrition Field Experience [NUTR 730] (MPH-RD and MPH)

This 10-week Advanced Nutrition Field Experience follows completion of required coursework. It provides students with the opportunity to integrate theory with practice, facilitate the transition from student to professional status, and clarify short-term career objectives in a supportive and nurturing environment.

The faculty field experience coordinator individually plans placements with each student in a series of conferences during the fall and spring semesters of the second year of study. Individual interests and qualifications are carefully considered in arranging placements. For students concentrating in public health nutrition; field sites are established in recognized public health nutrition programs in the United States (federal, state or local) and abroad. Preference is given to agencies where the nutrition program is directed by qualified Public Health Nutritionists and where agency administration supports allocation of staff professional time to the supervision and guidance of field students. For student concentrating in clinical nutrition, hospitals and condition specific clinics/programs are used for field sites for these students. Students are expected to have a sound background in foods, nutrition, dietetics, and public health. Prerequisites are NUTR 710 Clinical Nutrition Experience, NUTR 720 Public Health Nutrition Management I, and NUTR 725 Public Health Nutrition Management II, or equivalent.

Field counselors are identified annually depending on their availability and the interests of students. A Manual on Advanced Nutrition Field Practice Experience is kept current as a reference to faculty advisors, students and field counselors. **This six-credit course carries a \$450.00 field fee, in addition to normal semester tuition and fees.**

National Nutrition Issues [NUTR 735] (MPH-RD and MPH)

This three and one-half day course in Washington, D.C. is conducted in early January, prior to the start of the spring semester. It includes small group conferences with staff of the Departments of Agriculture and Health and Human Services, U.S. Congress, and with professional organizations and advocate groups concerned with legislation and nutrition policy. **This one-credit course carries a \$50.00 field fee, in addition to normal semester tuition and fees.**

E. Optional Applied Research in Public Health Nutrition

Students have the option of learning about the process of applied nutrition research by integrating a research component into their coursework and public health concurrent and/or community field experiences. Within this emphasis, students will become familiar with one or more research skills such as defining a research problem, assessing the feasibility of research in the field setting, evaluating alternative research methodologies, selecting an appropriate study sample, and/or communicating results to the appropriate audience.

Students interested in applied research in areas such as innovative public health service delivery, nutrition surveys and surveillance, data collection tool development and evaluation, program evaluation or policy analyses should discuss their interests with their faculty advisor and faculty field experience coordinator at the initial registration period. This will allow time for planning the necessary course sequence and appropriate field site selection. Students with this interest may

wish to extend their program by one semester. In addition to the required course load, the student should take additional coursework to gain more advanced experience in research methods.

During the summer or early fall semester of the second year, the student should explore research interests with a member of the nutrition faculty. A field site for NUTR 730 Advanced Nutrition Field Experience should be identified, and the potential field counselor, the student and the academic faculty adviser should be included in the planning/development of the research project. Registration of courses in the spring semester should include NUTR 695 Nutrition Research.

NUTR 695 Nutrition Research

The student should identify a faculty member willing to supervise the development of the research project. With the faculty advisor selected for this project, during the second year of study, the student will develop a proposal, conduct a literature review and/or develop data collection instruments as part of the independent study course NUTR 695. During the late fall and early spring semesters of the second year, the student will work with the faculty field experience coordinator to finalize a field placement and work with the field counselor to coordinate activities of NUTR 695 and make detailed plans for conducting the project. The student will implement the research project as a major part of the NUTR 730 Advanced Nutrition Field Placement experience. The results will be incorporated into the NUTR 992 Master's Paper.

NUTR 728 Nutritional Translational Research and Application

This course has been designed to focus on translational nutrition research and its application in grant writing. Students will apply evidenced-based nutrition interventions (education, counseling and research) in clinical public health and policy arenas. This course is optional but recommended for students who are interested in grant writing.

Expanded Study Options:

MPH students may wish to extend the period of study to include expanded study in an area related to nutrition professional practice. For example, some students wish to pursue additional coursework in exercise science, maternal and child health or health behavior. At this University, a formal minor in a subject area requires 9-credit hours for a master's student and requirements vary across departments and disciplines. However, many students take fewer credits to gain the desired knowledge and skill base. Students are encouraged to discuss these interests with the faculty advisor early in the course of study in order to tailor the educational program of study. Many students extend the course of study for an additional semester to meet such goals.

IV. LEARNING OBJECTIVES AND STUDENT EVALUATION

The MPH Program in the Department of Nutrition is designed to provide graduates with a breadth of integrated knowledge and skills in nutrition science, clinical nutrition, nutrition behavior, and public health principles and practice. The following learning objectives describe the expected breadth of knowledge and competencies on completion of the MPH degree program in Nutrition.

Learning Objectives:

Upon satisfactory completion of the MPH program in the Department of Nutrition, graduates will be able to:

- ◆ Critically think, problem solve and utilize decision-making skills as they relate to public health nutrition program and/or policy development in the field of public health nutrition practice, clinical practice, policy or research.
- ◆ Provide entry-level care and be able to assess and support the nutritional needs of individuals and communities.
- ◆ Define and interpret the anthropometric, biochemical, clinical, dietary and environmental elements needed for nutritional assessment of the individual
- ◆ Describe how social, cultural and economic characteristics influence dietary practices of individuals, groups and populations
- ◆ Describe the roles of diet in growth and development
- ◆ Describe the roles of medical nutritional therapy in the treatment of disease
- ◆ Plan menus to achieve optimal nutrition for individuals and groups in health and disease
- ◆ Communicate and educate effectively by using varied media and informational systems as appropriate for varied audiences
- ◆ Critically evaluate the epidemiological evidence linking nutritional indicators and public health problems
- ◆ Identify the data elements needed for community assessment, and summarize the criteria by which community problems are prioritized in program plans
- ◆ Distinguish among the elements of alternative theoretical frameworks to develop program or policy strategies which maximize efficacy and cost-effectiveness in achieving optimal dietary and nutritional status at the population level
- ◆ Develop an operational plan to implement nutrition-related interventions which are appropriate to a given community or subpopulation to promote health and prevent disease
- ◆ Write structure, process and outcome objectives for nutrition care plans at the individual level and nutrition program plans at the agency and community levels
- ◆ Develop and defend an operational budget, identifying resources needed to implement the nutrition program plan
- ◆ Design program evaluation strategies and data monitoring systems appropriate to agency mission and resource constraints

- ◆ Apply effective management principles in the administration of nutrition programs and services including human and financial resources
- ◆ Describe political and ethical considerations within and across organizations (public, private and voluntary sectors) involved in planning, decision making, and policy analysis

Competencies are based in part on knowledge and skills articulated by the relevant professional accreditation associations such as the Accreditation Council for Education in Nutrition and Dietetics and the Association of Graduate Faculties in Public Health Nutrition. Learning objectives are used to develop course-specific content and learning outcomes.

Student monitoring and evaluation

Graduate student progress is monitored in a variety of ways including monitoring of course grade performance, monitoring of experiential performance through individual conferences between students, faculty and field faculty, performance on the comprehensive exam, and the master's paper. The faculty advisor and the student have a mutual responsibility to work with each other to assure appropriate performance in coursework and planning, as needed, to prepare for successful completion of the comprehensive examination.

Formal and informal evaluation is built into field placements. Student assessment is part of course requirements. For example, during the Advanced Nutrition Field Experience, informal on-site evaluation is built into the experience to allow student and preceptor-designated time to assess performance and expectations. Formal evaluation is provided where the faculty paper advisor/mentor assigns a grade to the master's paper, which is written to fulfill graduate school requirements. The faculty field experience coordinator provides a course grade in conjunction with recommendations from the field faculty and student self-assessment.

V. RESOLUTION OF CONFLICTS

A variety of avenues exist for problem-solving. In the event that there is a dispute regarding a permanent course grade, the student shall first address his or her concerns to the instructor who assigned the grade. Thereafter, procedures are outlined in the Graduate School Handbook. For other conflicts between students and staff or faculty, every attempt should first be made to solve the problem independently. If resolution is not gained, the Chair of the MPH committee should be consulted. If unresolved by the committee chair, a faculty member appointed by the department Chair to head the department grievance committee, an ombudsperson, can be asked to meet with both parties of a dispute. Subsequent steps to resolve disputes are set forth in the booklet, Teaching Assistants and Professors as a Teaching Team, available from The Center for Faculty Excellence (formerly The Center for Teaching and Learning, UNC-CH).

VI. INSURANCE FOR STUDENTS

While students are in Chapel Hill, their routine health needs are met through Campus Health Services. All graduate students who meet three specific criteria are required to have health insurance coverage.

- enrolled in 1-credit hour,
- degree-seeking, and
- eligible to pay the student health fee

For further questions, please visit the Campus Health Services website at:

<http://campushealth.unc.edu/>

Costs for services not covered by insurance are the responsibility of the student and not the Department. Students completing NUTR 710 Clinical Nutrition Experience and NUTR 730 Advanced Nutrition Field Experience are required to demonstrate health insurance coverage on the first day of their experience.

Malpractice insurance is provided for all students involved in professional practice experiences (NUTR 710, 720, and 730). The Department presently covers the cost of this insurance.

VII. STUDENT EXPENSES

***Estimated** expenses for a graduate student for a typical 28-month program based on the anticipated tuition increase for 2014-2015:*

YEAR 1	NC RESIDENT	NON-NC RESIDENT
Tuition/Fees Academic Year	\$14,966	\$31,420
Tuition/Fees Summer Session (1 session)	\$1,450	\$4,400
Additional Field Fee:		
NUTR 720 Public Health Management I (Field Placement)	\$107	\$107
Books and Supplies:		
For 2 Semesters	\$1,484	\$1,484
Estimated Total for YEAR 1	\$18,007	\$37,411

Health Insurance – Semester (if not already covered) **Varies depending upon plan chosen by student** **Varies depending upon plan chosen by student**

YEAR 2	NC RESIDENT	NON-NC RESIDENT
Tuition/Fees Academic Year*	\$14,966	\$31,420
Tuition/Fees Summer Session (1 session)*	\$1,450	\$4,400
Additional Field Fee:		
NUTR 650L Food Science, Production and Meal Preparation Lab	\$50	\$50
NUTR 710 Clinical Nutrition Experience (Field Placement)	\$450	\$450
NUTR 735 National Nutrition Issues	\$50	\$50
Books and Supplies:		
For 2 Semesters	\$1,484	\$1,484
Estimated Total for YEAR 2	\$18,450	\$37,854

Health Insurance – Semester (if not already covered) **Varies depending upon plan chosen by student** **Varies depending upon plan chosen by student**

* Tuition and fees is determined by the North Carolina State Legislatures each year and it is expected that tuition and fees will increase for 2015-2016.

FINAL SEMESTER	NC RESIDENT	NON-NC RESIDENT
Tuition/Fees Academic Year*	\$7,483	\$15,710
Additional Field Fee:		
NUTR 730 Advanced Nutrition Field Experience	\$450	\$450
Books and Supplies:		
For 1 Semester	\$500	\$500
Estimated Total for Final Semester ONLY	\$8,433	\$16,660

Health Insurance - Semester (if not already covered)	Varies depending upon plan chosen by student	Varies depending upon plan chosen by student
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* Tuition and fees is determined by the North Carolina State Legislatures each year and it is expected that tuition and fees will increase for 2015-2016.

- NOTE:**
- A) This does not include additional incurred expenses for housing, food, travel, etc. during the Clinical Nutrition Experience, Public Health Nutrition Management Field Placement, Advanced Nutrition Field Experience, and the Washington, D.C. trip during the master program.
 - B) This does not include the cost of the RD examination (\$250.00).

VIII. THE STUDENT SERVICES REPRESENTATIVE

During the admissions process, most students will have interacted with the student services manager (SSM) in the Department of Nutrition. The SSM is available as a student advocate, to assist students in identifying and locating resources and requirements at the department, School of Public Health, and University levels. The SSM can assist students with a variety of needs including:

- **Obtaining** *Email addresses
UNC One Card*
- **Finding** *Nutrition Student Workroom/Mailboxes
Health Science and other University libraries
Health Affairs Bookstore within Student Stores*
- **Seeking** *Financial assistance or department
employment opportunities
Assistance with registering, adding/dropping
courses or withdrawal from the University*
- **University-wide Resources** *Student health, insurance and counseling
services
Parking permits
ConnectCarolina - online registration system
The Writing Center*

The SSM can be reached at: 260 Rosenau Hall, CB#7461
(919) 966-7212-OFC; (919) 966-7216-FAX
Email: nutrition@email.unc.edu

- For more information and graduate school policies pertaining to withdrawal from the university, refund of tuition and fees, protection of privacy of student information, access to health services, counseling, testing and financial aid please visit: <http://handbook.unc.edu>

IX. THE MPH COMMITTEE MEMBERSHIP

A committee of Department faculty is responsible for administration of the MPH program. Their responsibilities include admissions to the MPH program, curriculum requirements, and development and grading of the MPH Comprehensive Examination. For the 2014-2015 school year, Committee members include Professors, Peggy Bentley (co-chair), Amanda Holliday (co-chair), Kyle Burger, Liza Makowski, Michelle Mendez, Shuwen Ng, Patricia Sheridan, and Janice Sommers.

X. MPH COMPREHENSIVE EXAMINATION

Upon completion of the program didactic requirements, each student must pass a written, comprehensive examination. This examination covers and integrates the general areas of:

- ♦ biological and clinical aspects of nutrition
- ♦ behavioral aspects of food and nutrition
- ♦ nutritional epidemiology
- ♦ public health nutrition programs and policy.

Primary competencies, which will be evaluated on the comprehensive examination, may include the following:

- ♦ Describe the normal metabolism (absorption, digestion, metabolism, storage, excretion) of nutrients important to health and disease outcomes from a public health perspective.
- ♦ Explain the roles of one or more nutrients in the etiology and/or the medical nutrition therapy and treatment of chronic conditions of public health importance. [e.g., What is the strength of the evidence that diet and/or nutritional status is related to the development or effective treatment of a particular health outcome (as evaluated across different kinds of research study designs and subjects-molecular biology, animal, clinical and biomedical, population-based studies?)]
- ♦ Differentiate nutritional needs and risk in the population at different stages of the life cycle. Identify and characterize dietary and non-dietary factors important as risk factors for chronic conditions as well as to generally describe the prevalence, incidence and trends in such conditions for the population at large and subpopulations at elevated risk.
- ♦ Articulate and support with literature-based evidence the rationale for public health nutrition intervention programs. [e.g., if a positive diet-disease

relationship exists, what is the theoretical rationale behind alternative intervention strategies, and what is the strength of the evidence that particular intervention strategies will achieve the desired level of change in health outcome in a specific population?]

- ◆ Illustrate the practice of public health science by applying the knowledge of community assessment, program planning (including writing behavioral objectives), program implementation, and program evaluation to the development of population and community-based nutrition interventions.
- ◆ Contrast the efficacy, effectiveness, and/or cost effectiveness of alternative intervention or policy strategies as needed for programmatic decision making.
- ◆ Describe the political considerations involved in agency planning and decision making and in influencing policy.

The comprehensive examination for BOTH tracks will be offered in May only. Students are asked to answer three questions; all three of which are closed book. The exam usually takes approximately 4 hours. Typical multicomponent questions might ask the student to:

- ◆ Characterize the epidemiology of a given public health problem
- ◆ Identify and evaluate potential metabolic or etiologic mechanisms
- ◆ Compare the role of one or more nutrients in condition etiology or treatment
- ◆ Describe and contrast efficacy and effectiveness of alternative intervention approaches
- ◆ Describe the political considerations involved in planning and decision making on influencing policy.

Students are required to pass the comprehensive examination. If a student fails the examination he/she may retake the examination at the next scheduled exam administration. No student may take an examination a third time without approval by the Administrative Board of the Graduate School.

XI. APPLICATION FOR GRADUATION

Each student must be registered for 3-credits of NUTR 992 during the semester he/she expects to graduate signifying that he/she has completed all requirements for the master's degree, and is eligible to graduate at the end of the Advanced Nutrition Field Experience. Students must complete the *Application for Graduation* form online through ConnectCarolina student portal.

XII. BECOMING A REGISTERED DIETITIAN

The Coordinated Program provides both the didactic and supervised practice components of the registration eligibility process. For those students planning on becoming registered dietitians (RD), a verification statement will be issued upon successful completion of course work, the comprehensive exam and all supervised practice experiences.

The Program Director submits documents to the Commission on Dietetic Registration (CDR) of the Academy of Nutrition and Dietetics ("The Academy") verifying the names

of students who have been issued a Verification Statement and are eligible to take the exam. CDR sends candidates a packet of information that includes the application to take the registration examination for dietitians and a handbook that explains the application procedure. Candidates completing the RD Exam should use the program code of 1486 on their application. A fee, currently \$250.00, must be submitted with the completed application.

After processing the application, CDR will send the candidate an Authorization to Test letter along with a current list of authorized test centers. Candidates need to contact a test center to make arrangements to take the registration examination.

XIII. COURSE DESCRIPTIONS

NUTR 240 INTRODUCTION TO HUMAN NUTRITION (3)

Prerequisites, BIOL 101/101L and CHEM 102/102L. Relationships of human nutrition to health and disease. Integration of biology, chemistry, and social sciences as related to human function. Nutrient composition of foods and safety of the food supply. Fall. Beck and Faculty.

NUTR 245 SUSTAINABLE LOCAL FOOD SYSTEMS: INTERSECTION OF LOCAL FOODS AND PUBLIC HEALTH (3)

Examines the intersection of local foods and public health in respect to nutrition, environmental, economic, and community issues. Students explore impacts of the increasingly industrialized and centralized food system, as well as, potential solutions, while assisting community partners increase opportunities for farmers, local food marketers, distributors, and entrepreneurs. Spring. Ammerman.

NUTR 295 UNDERGRADUATE RESEARCH EXPERIENCE IN NUTRITION (3)

Permission of the instructor. For undergraduates enrolled in the department's baccalaureate degree program. Directed readings or laboratory study on a selected topic. May be taken more than once for credit. Fall, Spring, Summer. Faculty.

NUTR 400 INTRODUCTION TO NUTRITIONAL BIOCHEMISTRY (3)

Prerequisites, BIOL 101, CHEM 101, 102 and NUTR 240. Permission of the instructor for students lacking the prerequisites. Function of the human body focusing on nutrient interaction. Biochemistry of nutrients with a limited focus on medical aspects of nutrient metabolism. For advanced undergraduates and graduate students needing to enhance background prior to NUTR 600. Spring. Styblo and Drobna.

NUTR 600 HUMAN METABOLISM: MACRONUTRIENTS (3)

Prerequisite, NUTR 400. Permission of the instructor for students lacking the prerequisites. Cell biochemistry and physiology emphasizing integration of proteins, carbohydrates and lipids in whole-body metabolism, regulation of energy expenditure, food intake, metabolic adaptations, and gene expression, and macronutrient-related diseases (atherosclerosis, obesity). Fall. Coleman and Faculty.

NUTR 611 NUTRITION ACROSS THE LIFE CYCLE (3)

Prerequisite, NUTR 400. This course covers nutrition during the life cycle. Units include women during preconception, pregnancy, and lactation; infancy; childhood; adolescence; and older adults (65+). Nutrient and energy needs, assessment of nutritional status, and cultural and socioeconomic barriers are discussed for each phase.. Fall. Gordon-Larsen, Siega-Riz, and Holliday.

NUTR 620 HUMAN METABOLISM: MICRONUTRIENTS (3)

Prerequisite, NUTR 400 and 600. Permission of the instructor for students lacking the prerequisites. Cell biochemistry and physiology emphasizing metabolism of vitamins and minerals including antioxidant protection, immune function, nutrient control of gene expression and disease states induced by deficiencies (e.g., iron-deficient anemia). Spring. Makowski.

NUTR 630 NUTRITION COMMUNICATION, COUNSELING AND CULTURE (3)

Prerequisite, NUTR 240. Permission of the instructor for students lacking the prerequisite. Course teaches the future nutrition professional the art and science of communicating with individuals, groups, and the public. Students will enhance cultural awareness, practice counseling individuals and facilitating groups, and frame nutrition messages for mass media including social media. Fall. Sommers.

NUTR 640 MEDICAL NUTRITION THERAPY I: CHRONIC DISEASE MNGT. (3)

Prerequisite, NUTR 630. Course designed to examine the rationale and implementation of diet therapy and nutrition support in the prevention or treatment of chronic diseases. Spring. Holliday.

NUTR 642 MEDICAL NUTRITION THERAPY II: ACUTE DISEASE MNGT. (3)

Prerequisite, NUTR 640. Course designed to examine the rationale and implementation of diet therapy and nutrition support in the prevention or treatment of acute diseases. Fall. Holliday.

NUTR 650 FOOD SCIENCE, PRODUCTION AND MEAL PREPARATION (2)

Concurrent with NUTR 400. Permission of the instructor for students lacking the prerequisites. Introduction to foods, food composition and properties; factors affecting selection, handling and prep of foods; food safety; basic food industry knowledge; meal planning. NUTR 650 Lab required. Spring. Wyler.

NUTR 650L FOOD SCIENCE, PRODUCTION AND MEAL PREPARATION LAB (1)

Concurrent with NUTR 650. Permission of the instructor for students lacking the prerequisites. This is the lab that accompanies NUTR 650. This lab applies the basic concepts of meal preparation, food production and food science. Lab fee required. Three lab hours per week. Spring. Wyler.

NUTR 692H HONORS RESEARCH IN NUTRITION (3)

Permission of instructor. Directed readings or laboratory study of a selected topic. Requires a written proposal to be submitted to and approved by BSPH Committee and faculty research director. A written report is required. May be taken more than once for credit. Six laboratory hours per week. Fall, spring, summer. Faculty.

NUTR 695 NUTRITION RESEARCH (VAR. 1-9)

Permission of the instructor. Individual arrangements with faculty for bachelor and master students to participate in ongoing research. Fall, spring, and summer. Faculty.

NUTR 696 READINGS IN NUTRITION (VAR. 1-9)

Permission of the instructor. Reading and tutorial guidance in special areas of nutrition. Fall, spring, and summer. Faculty.

NUTR 700 NUTRITION IN MEDICINE (2)

Prerequisite, BIOL 252 and NUTR 600 or equivalent. Comprehensive review of nutrition basics with strong clinical perspective. Integrates nutrient biochemistry and metabolism into a framework of nutritional assessment and dietary intervention. Fall. Kohlmeier.

NUTR 710 CLINICAL NUTRITION EXPERIENCE (5)

Prerequisite, NUTR 644. Students are assigned to medical facilities where, under the supervision of registered dietitians, they participate in the nutritional care of patients. Field fee required. Forty hours per week for twelve weeks. Summer. Holliday and field preceptors.

NUTR 720 PUBLIC HEALTH NUTRITION MANAGEMENT I (2-5)

Prerequisites, NUTR 630 and NUTR 640. Allows student to focus on the roles and functions of the health care team and nutritionist in providing nutrition services at the community level. Includes community assessment and organization, quality assurance and program evaluation, and basic personnel management. Three-five lecture hours and 24-32 hours of field experience per week depending on MPH track. Field fee required. Summer. Sommers and Samuel-Hodge.

NUTR 725 PUBLIC HEALTH NUTRITION MANAGEMENT II (3)

Prerequisite, NUTR 720. An overview of the planning and management of local, state, federal, and voluntary public health nutrition programs. Examines legislative and administrative structures. Fall. Sommers.

NUTR 728 NUTRITION TRANSLATIONAL RESEARCH AND APPLICATION (2)

Prerequisite, EPID 600, NUTR 725, and NUTR 813 recommended. Permission of instructor for nonmajors. Designed to focus on translational nutrition research and application, including grant writing, to prepare students in clinical, public health, and policy arenas. Spring. Mayer-Davis.

NUTR 730 ADVANCED NUTRITION FIELD EXPERIENCE (6)

Prerequisites, NUTR 710 and NUTR 720. During a consecutive ten-week block of time, students are assigned to a) hospital or b) state, local, or district health agency or other appropriate agency for their supervised field experience. Field fee required. Fall, spring, summer. Holliday and Sommers.

NUTR 735 NATIONAL NUTRITION ISSUES (1)

Prerequisite, NUTR 725 or permission of the instructor. Three-day in-depth seminar held in Washington, DC on national nutrition issues, policy formulation and program development with key congressional staff, federal agencies staff, and pertinent public interest/consumer advocacy groups. Paper required. Field fee required. Fall. Ng.

NUTR 740 BLOCK FIELD RESEARCH (4)

Prerequisite, NUTR 700 and NUTR 813. During a consecutive ten-week block of time, students conduct nutrition-related research on topics including cancer, diabetes, hypertension, obesity, and cardiovascular disease. Supervised by an approved faculty and mentor. Field fee required. Fall, spring, summer. Faculty.

NUTR 745 INTERNATIONAL NUTRITION (3)

Provides a broad overview of international nutrition research issues, programs, and policies. Topics will include micronutrient deficiencies, child feeding and growth, determinants of under- and over-nutrition, chronic disease and nutrition, food fortification and supplementation, and nutrition intervention programs and policy. Fall. Adair and Bentley.

NUTR 750 INTERNATIONAL NUTRITION: SPECIAL TOPICS (1).

Prerequisite, NUTR 745. Follow-up in greater detail of selected issues discussed in NUTR 745. Two seminar hours per week. Spring. Adair.

NUTR 780 PUBLIC HEALTH ENTREPRENEURSHIP (3)

Prerequisite, Approval of Instructor (complete application ~ <http://www.unc.edu/cei/grad>). Basic concept underlying commercial and social entrepreneurship applied to public health, including guest lectures by individuals with proven success in these areas. Spring. Ammerman.

NUTR 785 GRADUATE TEACHING EXPERIENCE (1)

Prerequisite, permission of the instructor. Individual arrangements with faculty for a graduate student to serve as a teaching assistant for a Nutrition course. Fall and Spring. Beck.

NUTR 801 ADV. NUTRITION INTERVENTION AND RESEARCH METHODS I (2)

Prerequisite, permission of instructor. Fundamentals of nutrition intervention and policy research including conceptualization of research questions, hypothesis writing, and design of clinical and community trials. Applied focus on historical and innovative trials' design and implementation. Fall. Faith and Burger.

NUTR 802 ADV. NUTRITION INTERVENTION AND RESEARCH METHODS II (2)

Prerequisite, NUTR 801. Selected topics in nutrition intervention and policy research design and evaluation; continuation of NUTR 801. Spring. Faith and Burger.

NUTR 803 NUTRITION INTERVENTION ADVANCED RESEARCH SEMINAR (2).

Prerequisite, NUTR 801 and 802. Development of critical thinking skills in the analysis of important nutrition and policy interventions. The course will examine conceptual models, research designs, intervention strategies, and measures of effectiveness. Course may be repeated once. Fall, Spring. Faith and Burger.

NUTR 809 QUALITATIVE RESEARCH METHODS IN NUTRITION (2)

Prerequisite, permission of instructor. Introduces students to qualitative research methods with an emphasis on their use in nutrition-related programmatic research, both locally and globally. Uses a combination of didactic, interactive, and applied techniques to teach qualitative research knowledge and skills. Students will work in teams to collect several types of qualitative data on a project that they design. Spring. Bentley and Flax.

NUTR 810 PHYSICAL ACTIVITY EPIDEMIOLOGY AND PUBLIC HEALTH (3)

Prerequisite, EPID 600 or equivalent. Course provides an overview of major issues in physical activity measurement, population distribution, correlates, impacts (physically and economically), and public health recommendations. Interventions, including relevant theories, will be reviewed. Spring. Ward and Hales.

NUTR 811 DEVELOPMENT OF HEALTH PROMOTION AND DISEASE PREVENTION INTERVENTIONS (VAR. 1-3)

Prerequisite, permission of the instructor. Understanding of the role and application of both theory and empirical data in the design and development of effective behavior change interventions, with particular focus on changing nutrition behaviors. Fall. Tate.

NUTR 812 INTRODUCTION TO OBESITY: CELL TO SOCIETY (3)

Prerequisite, permission of the instructor. This course provides a broad survey of obesity research including measurement issues, biological, social and economic etiologies, health and economic consequences, and prevention and treatment of obesity. Spring. Gordon-Larsen and Poti.

NUTR 813 NUTRITIONAL EPIDEMIOLOGY (3)

Prerequisites, EPID 600 or 710 and BIOS 600 or equivalent. This course introduces basic methods of dietary assessment, reviews various topics in nutrition epidemiology and teaches the skills needed for critical evaluation of the nutritional epidemiologic literature. Spring. Mendez.

NUTR 814 OBESITY EPIDEMIOLOGY (3)

Prerequisites, BIOS 600, EPID 710, EPID 715, and NUTR/EPID 813. Examines epidemiology research on the causes, consequences, and prevention of obesity. Emphasis on methodological issues pertinent to obesity research. Spring, alternating years. Stevens and Bradshaw.

NUTR 818 ANALYTICAL METHODS IN NUTRITIONAL EPIDEMIOLOGY (3)

Prerequisites, EPID 600 or 710, NUTR 813 and BIOS 545, or permission of the instructor. Skills and techniques to study how dietary exposures, physical activity and anthropometric status relate to disease outcomes. Focus is hands on data analysis using STATA, and interpretation of results from statistical analysis. Fall, alternate years. Adair.

NUTR 820 ADVANCED PUBLIC HEALTH NUTRITION MANAGEMENT (3)

Prerequisite, MPH degree or permission of the instructor. Analysis of policy development and management techniques used in the public and private sectors with relevance to the development and management of nutrition policy and programs. Spring, alternate years. Faculty.

NUTR 845 NUTRITIONAL METABOLISM (3)

Prerequisite, NUTR 600 or equivalent. A problem-based approach to examine current topics in biochemistry relevant to nutrition and metabolism. Students interpret data and design experiments related to recent advances in nutritional biochemistry. Spring. Coleman.

NUTR 861 ADV. NUTRITIONAL BIOCHEMISTRY: NUTRITION & IMMUNOLOGY (2)

Prerequisites, NUTR 600 and 620 or equivalent. Presents an understanding of basic immunology and the role of nutrition in modifying the immune response. Fall, alternate years. Beck.

NUTR 863 ADV. NUTRITIONAL BIOCHEMISTRY: MICROENVIRONMENTS: INFLAMMATION IN OBESITY, ATHEROSCLEROSIS AND CANCER (2)

Prerequisite, NUTR 600. Permission of the instructor for students lacking the prerequisite. Will examine the interaction of cells in the microenvironment and recent advances in the role of metabolism and inflammation. Fall, alternate years. Makowski.

NUTR 864 ADV. NUTRITIONAL BIOCHEMISTRY: OXIDATIVE STRESS AND NUTRITIONAL ANTIOXIDANTS IN HUMAN HEALTH AND DISEASE (2)

Prerequisite, BIOL 101, CHEM 102, NUTR 400 (or equivalent). Permission of the instructor for non-majors. Provide basic information about the cellular and molecular mechanisms that are responsible for generation of reactive oxygen and nitrogen species, about key cellular structures targeted by these species, and about the role of oxidative stress and antioxidants in etiology and prevention of human diseases. Fall, alternate years. Styblo.

NUTR 865/GNET 865 ADVANCED NUTRITIONAL BIOCHEMISTRY: NUTRIGENOMICS (2)

Permission of Instructor. Course focuses on nutrigenomics, the effect of diet on gene expression, with an emphasis on the genetic and dietary interactions predisposing one to increased risk of disease. Spring, alternate years. Bennett.

NUTR 866 ADV. NUTRITIONAL BIOCHEMISTRY: NUTRITION AND POPULATION GENETICS (2)

Prerequisites, NUTR 600 and 620, or permission of instructor. Course focuses on the genetic susceptibility to nutrition-related diseases and population variance in response to diet. Fall, alternate years. Voruganti, S.

NUTR 868 NUTRIENTS AND DISEASE: BRAIN FUNCTION AND DEVELOPMENT (2)

Prerequisites, NUTR 600 and 620 or equivalent. Seminar on nutrients that influence brain and neuron development and function. Spring, alternate years. Zeisel.

NUTR 875 NUTRITION POLICY SEMINAR (1)

Prerequisite, permission of the instructor for undergraduates. Graduate seminar addressing current public health nutrition policy challenges and controversies including school lunch standards, sugar sweetened beverages, the Farm Bill, federal food programs, the Affordable Care Act, and policies affecting local food systems such as food policy councils, farm to school programs, and good agricultural practices (GAP) certification. Fall. Ammerman.

NUTR 880 ELEMENTS OF BEING A SCIENTIST (3)

Prerequisites, for doctoral students permitted by instructor/prepared with PHD aims/focus. Course focuses on key elements that contribute to a successful career as a scientific researcher. These include scientific presentations, NIH proposal grant writing, evaluating published manuscripts, sources of funding, peer review, use of animals and humans in research, and scientific ethics. Fall. Zeisel, Popkin, and Ward.

NUTR 885 DOCTORAL SEMINAR (1)

This course is designed for doctoral and master of science students only. Critical review of current literature in nutritional biochemistry, intervention and policy, and population-based nutrition science. Focuses on the development of skills in reviewing and criticizing articles. Fall/Spring. Faculty.

NUTR 910 NUTRITION RESEARCH (VAR. 1-9)

Individual arrangements with faculty for doctoral students to participate in ongoing research. Fall, spring, and summer. Faculty.

**NUTR 920 RESEARCH ROTATIONS FOR NUTRITIONAL BIOCHEMISTRY
DOCTORAL STUDENTS (VAR. 1-3)**

Two laboratory or research group rotations supervised by nutritional biochemistry faculty. Provides a breadth of research experience for students prior to selecting dissertation adviser. Up to six laboratory hours per week. Fall, spring, and summer. Sheridan.

NUTR 992 MASTER'S PAPER (3)

Fall, spring, and summer. Faculty.

NUTR 993 MASTER'S THESIS (3)

Fall, spring, and summer. Faculty.

NUTR 994 DOCTORAL DISSERTATION (3)

Fall, spring, and summer. Faculty.

XIV. APPENDICES

APPENDIX A.

COURSES THAT MEET SCHOOL OF PUBLIC HEALTH REQUIREMENTS FOR THE MPH DEGREE:

Approved basic core courses are noted for each category with alternative courses listed below.

BIostatistics (BIOS 600)

Any BIOS course higher than BIOS 600

EPIDEMIOLOGY (EPID 600 or 710)

EPID 711/ Clinical Measurement/Evaluation
PUBH 760

ENVIRONMENTAL HEALTH (ENVR 600) ~ online

ENVR 430 Health Effects on Environmental Agents

HEALTH POLICY AND MANAGEMENT (HPM 600) ~ online

HPM 660 International and Comparative Health Systems
MHCH 701 Foundations of Maternal and Child Health I
MHCH 702 Foundations of Maternal and Child Health II

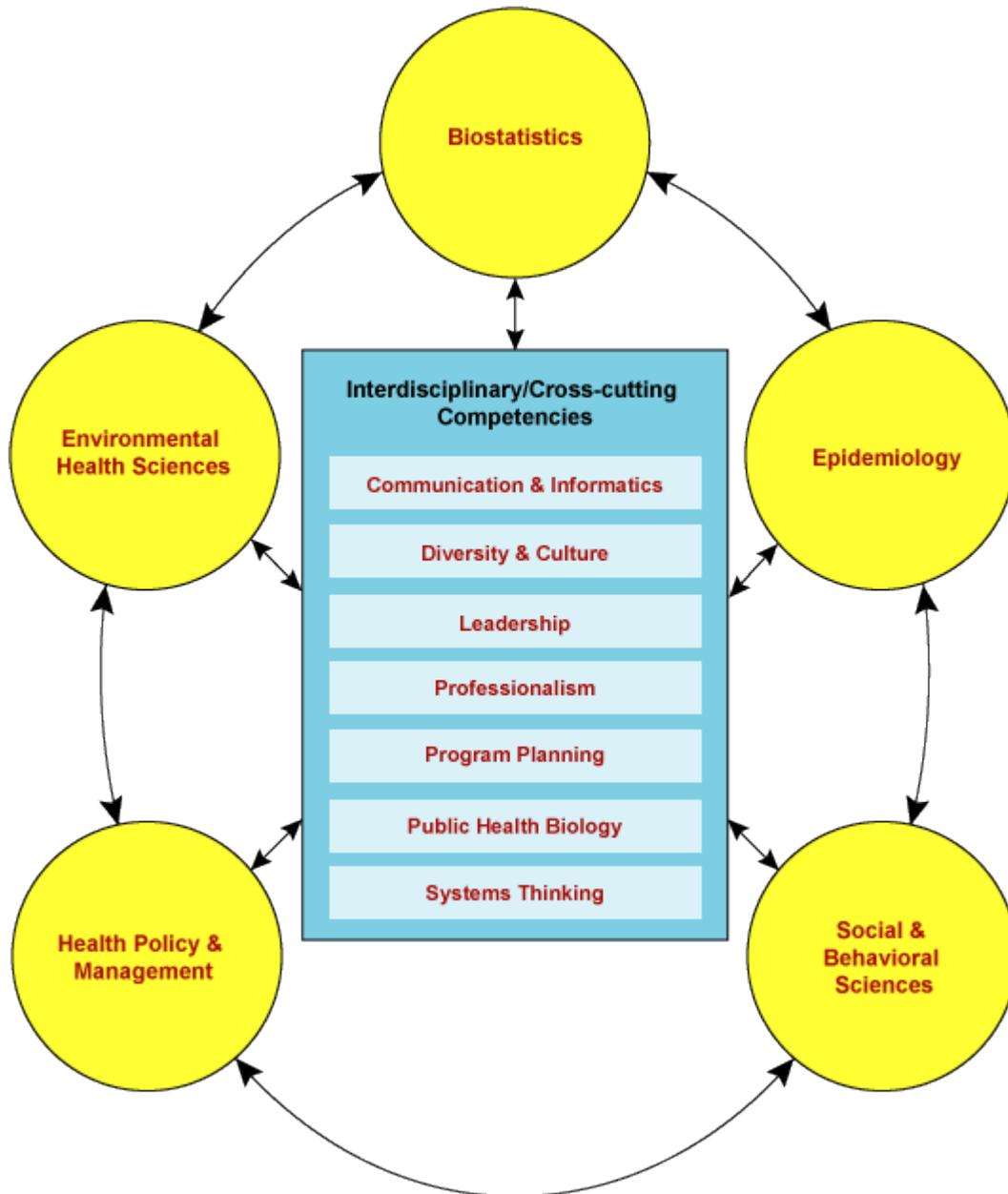
SOCIAL AND BEHAVIORAL SCIENCE (HBEH 600) ~ online

APPENDIX B.

ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

www.asph.org

Model and Definition



Discipline-specific Definitions*

§ Biostatistics

Biostatistics is the development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health; health care; and biomedical, clinical and population-based research.

§ Environmental Health Sciences

Environmental health sciences represent the study of environmental factors including biological, physical and chemical factors that affect the health of a community.

§ Epidemiology

Epidemiology is the study of patterns of disease and injury in human populations and the application of this study to the control of health problems.

§ Health Policy and Management

Health policy and management is a multidisciplinary field of inquiry and practice concerned with the delivery, quality and costs of health care for individuals and populations. This definition assumes both a managerial and a policy concern with the structure, process and outcomes of health services including the costs, financing, organization, outcomes and accessibility of care.

§ Social and Behavioral Science

The behavioral and social sciences in public health address the behavioral, social and cultural factors related to individual and population health and health disparities over the life course. Research and practice in this area contributes to the development, administration and evaluation of programs and policies in public health and health services to promote and sustain healthy environments and healthy lives for individuals and populations.

Interdisciplinary/Cross-cutting Definitions*

§ Communication and Informatics

The ability to collect, manage and organize data to produce information and meaning that is exchanged by use of signs and symbols; to gather, process, and present information to different audiences in-person, through information technologies, or through media channels, and to strategically design the information and knowledge exchange process to achieve specific objectives.

§ Diversity and Culture

The ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.

§ Leadership

The ability to create and communicate a shared vision for a changing future; champion solutions to organizational and community challenges; and energize commitment to goals.

§ Public Health Biology

Public health biology is the biological and molecular context of public health.

§ Professionalism

The ability to demonstrate ethical choices, values and professional practices implicit in public health decisions; consider the effect of choices on community stewardship, equity, social justice and accountability; and to commit to personal and institutional development.

§ Program Planning

The ability to plan for the design, development, implementation, and evaluation of strategies to improve individual and community health.

§ Systems Thinking

The ability to recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities, and environments.

**Definitions are provided to define the context by which the workgroups' competency modeling development activities took place and are not intended to describe the entire field of the particular discipline's scholarship and practice.*

For more information, contact ASPH at
(202) 296-1099 or visit our website at www.asph.org.

Original URL: <http://www.asph.org/document.cfm?page=929>

Posted on: 04/26/2006

Last Updated on: 06/27/2006

APPEXDIX C.

MPH/RD Coordinated Program in Dietetics (CP) Check Sheet

Department of Nutrition, School of Public Health and School of Medicine

The University of North Carolina at Chapel Hill

Prerequisites for admission: Please circle courses completed at UNC or write course number and college/university where alternative courses were completed if taken at another educational institution.

COURSES REQUIRED	DPD APPROVED UNC COURSES		ALTERNATE UNC COURSES		ALTERNATE COURSES AT OTHER INSTITUTIONS		
	Subject	Course/Number	Credit Hours	Course/Number	Credit Hours	Course #/Name	Credit Hours
Anthropology OR Sociology	ANTH 101 OR SOC 101	3 3	ANTH 102 ANTH 142 ANTH 144 ANTH 147 ANTH 151 ANTH 322 ANTH 470 PSYC 260 SOC 111 SOC 112 SOC 469	3 3 3 3 3 3 3 3 3 3 3			
Psychology	PSYC 101	3					
Chemistry Inorganic	CHEM 101 CHEM 101L CHEM 102 CHEM 102L	3 1 3 1	CHEM 102H CHEM 105L	3 1			
Chemistry Organic	CHEM 261	3					
Microbiology	MCRO 251	4	MCRO 255	4			
Human Anatomy and Physiology	BIOL 252	4	BIOL 251 EXSS 175 EXSS 276 PHYI 202 PHYI 203	3 3 3 5 4			

COURSES REQUIRED	DPD APPROVED UNC COURSES		ALTERNATE UNC COURSES		ALTERNATE COURSES AT OTHER INSTITUTIONS		
Human Nutrition	NUTR 240	3					
Biochemistry	NUTR 400	3					
COURSES TAKEN ONCE ENROLLED IN THE PROGRAM:							
Human Metabolism	NUTR 600 NUTR 620	3 3					
Life-cycle Nutrition	NUTR 611	3					
Foods & Food Science	NUTR 650 NUTR 650L	3 1					
Cultural & Behavioral Nutrition	NUTR 630	3					
Nutrition and Community Health	HPM 600 NUTR 720 NUTR 725	3 5 3					
Nutrition and Disease	NUTR 620 NUTR 640 NUTR 642	3 3 3					
Food Service Systems Management	Food Systems Management Workshop						
Learning Theory	NUTR 630 HBEH 600	3 3					
Data Evaluation	BIOS 600	3					
Management Theory & Principles	NUTR 725	3	HPAA 730	3			
Political & Legislative Process	NUTR 735	1					
Environmental Issues	ENVR 600	3					

APPENDIX D.

Student: _____ Faculty Advisor: _____ Date: _____

Student Learning Outcomes in UNC Coordinated Master’s Program in Public Health Nutrition

Learning Outcome	Assessment Location (Course or Experience)
CRD 1.1 Select indicators of program quality and/or customer service and measure achievement of objectives.	Nutrition 725
CRD 1.2 Apply evidence-based guidelines, systematic reviews and scientific literature (such as the Academy’s Evidence Analysis Library and Evidence-based Nutrition Practice Guidelines, the Cochrane Database of Systematic Reviews and the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, national Guideline Clearinghouse Web sites) in the nutrition care process and model and other areas of dietetic practice.	Nutrition 710
CRD 1.3 Justify programs, products, services and care using appropriate evidence or data	Nutrition 725
CRD 1.4 Evaluate emerging research for application in dietetics practice	Nutrition 725
CRD 1.5 Conduct projects using appropriate research methods, ethical procedures and statistical analysis	Nutrition 720
CRD 2.1 Practice in compliance with current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the ADA Scope of Dietetics Practice Framework, Standards of Professional Performance and Code of Ethics for the Profession of Dietetics	Nutrition 720
CRD 2.2 Demonstrate professional writing skills in preparing professional communications (such as research manuscripts, project proposals, education materials, policies and procedures)	Nutrition 992
CRD 2.3 Design, implement and evaluate presentations to a target audience	Nutrition 720
CRD 2.4 Use effective education and counseling skills to facilitate behavior change	Nutrition 630
CRD 2.5 Demonstrate active participation, teamwork and contributions in group settings	Nutrition 710

CRD 2.6 Assign patient care activities to DTRs and/or support personnel considering the needs of the patient/client or situation, the ability of support personnel, jurisdictional law, practice guidelines and policies within the facility	Nutrition 710
CRD 2.7 Refer clients and patients to other professionals and services when needs are beyond individual scope of practice	Nutrition 710
CRD 2.8 Apply leadership skills effectively to achieve desired outcomes	Nutrition 730
CRD 2.9 Participate in in professional and community organizations	Nutrition 720
CRD 2.10 Establish collaborative relationships with other health professionals and support personnel to deliver effective nutrition services.	NUTR 710
CRD 2.11 Demonstrate professional attributes within various organizational cultures	Nutrition 730
CRD 2.12 Perform self-assessment, develop goals and objectives and prepare a draft portfolio for professional development as defined by the Commission on Dietetic Registration	Professional Development Portfolio
CRD 2.13 Demonstrate negotiation skills	Nutrition 710
CRD 3.1 Perform the Nutrition Care Process (a through e below) and use standardized nutrition language for individuals, groups and populations of differing ages and health status, in a variety of settings	Nutrition 710
CRD 3.1a Assess the nutritional status of individuals, groups and populations in a variety of settings where nutrition care is or can be delivered	Nutrition 710 and 720
CRD 3.1b Diagnose nutrition problems and create problem, etiology, signs and symptoms (PES) statements	Nutrition 710
CRD 3.1c Plan and implement nutrition interventions to include prioritizing the nutrition diagnosis, formulating a nutrition prescription, establishing goals and selecting and managing intervention	Nutrition 710
CRD 3.1d Monitor and evaluate problems, etiologies, signs, symptoms and the impact of interventions on the nutrition diagnosis	Nutrition 710
CRD 3.1e Complete documentation that follows professional guidelines, guidelines required by health care systems and guidelines required by the practice setting.	Nutrition 710
CRD 3.2 Demonstrate effective communication skills for clinical and customer services in a variety of formats.	Nutrition 630
CRD 3.3 Develop and deliver products, programs or services that promote consumer health, wellness and lifestyle management.	Nutrition 650/650L

CRD 3.4 Deliver respectful, science-based answers to consumer questions concerning emerging trends	Nutrition 630
CRD 3.5 Coordinate procurement, production, distribution and service of goods and services	Nutrition 710
CRD 3.6 Develop and evaluate recipes, formulas and menus for acceptability and affordability that accommodate the cultural diversity and health needs of various populations, groups and individuals	Nutrition 710 (FS)
CRD 4.1 Participate in management of human resources	Nutrition 725
CRD 4.2 Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food	Nutrition 710 (FS)
CRD 4.3 Participate in public policy activities, including both legislative and regulatory initiatives	Nutrition 735
CRD 4.4 Conduct clinical and customer service quality management activities	Nutrition 710
CRD 4.5 Use current informatics technology to develop, store, retrieve and disseminate information and data.	Nutrition 710
CRD 4.6 Analyze quality, financial or productivity data and develop a plan for intervention	Nutrition 710
CRD 4.7 Propose and use procedures as appropriate to the practice setting to reduce waste and to protect the environment.	Nutrition 710 (FS)
CRD 4.8 Conduct feasibility studies for products, programs or services with consideration of costs and benefits.	Nutrition 725
CRD 4.9 Analyze financial data to assess utilization of resources.	Nutrition 650/650L
CRD 4.10 Develop a plan to provide or develop a product, program or service that includes a budget, staffing needs, equipment and supplies.	Nutrition 725
CRD 4.11 Code and bill for dietetic/nutrition services to obtain reimbursement from public or private insurers.	Nutrition 725

APPENDIX E.

MPH INDIVIDUAL STUDENT PROGRESS FORM

Name _____ PID # _____

Advisor _____

Instructions: All MPH students are required to meet with their assigned advisor each semester prior to course registration for the next term. Each student should discuss their course registration plan, as well as, bring with them a printed grade roster. Both the student and their advisor are to initial the form after each meeting. Student will be responsible for completing and returning this form to Joanne Lee after each term until graduation. Joanne will send you an email reminder in early October/March (prior to early registration), so you can stop by her office to pick up the form.

TERM	COURSE APPROVAL (✓)	TRANSCRIPT /GRADES (✓)	STUDENT INITIAL	ADVISOR INITIAL	DATE
FALL 2014					
SPRING 2015					
SUMMER 2015					
FALL 2015					
SPRING 2016					
SUMMER 2016					
FALL 2016					

NOTES: _____

