

# **Nutritional Sciences**

# COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES

# GRADUATE STUDENT HANDBOOK

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#### **PREFACE**

This handbook is intended to guide students and faculty through a program of graduate study in the Division of Nutritional Sciences. It identifies the academic policies and procedures by which graduate programs are administered by the Division and the Graduate College of the University of Illinois. These policies and procedures are fully described in the following publications:

- The Graduate College Handbook for Students, Faculty, and Staff
- Policy and Procedures on Academic Integrity in Research and Publication
- Student Code

These publications are accessible from the indicated websites, the <u>University of Illinois</u> <u>website</u> or the <u>Graduate College website</u>. Information on Intellectual Property can be found at the Office of Technology Management website.

Although overall jurisdiction rests with the Graduate College and their rules and procedures form the basis of this Handbook, the Division at times has stricter or more rigorous interpretations of the rules. In those cases, only the Division rules have been mentioned. We also have included information (other than rules and procedures) to make this Handbook the main reference for graduate students during their degree program(s).

If you have any questions that are not addressed by this handbook, you may receive assistance from the Division office: Dr. Jessica Hartke, DNS Senior Associate Director, or Dr. Kelly Swanson, DNS Director.

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#### A. The Division of Nutritional Sciences

History: The Division of Nutritional Sciences celebrated its 50th anniversary in 2018. Over the past 50 years, the Division has achieved an eminent record in nutrition education, research, and public service and is consistently ranked among the top nutrition graduate programs in the U.S. This recognition is based primarily upon the quality of the Nutritional Sciences faculty and graduate students and their research achievements. Nutritional Sciences faculty hold or have held high offices and positions of importance in national and international governmental bodies and scientific societies, and on editorial boards of top scientific journals. In addition, many Nutritional Sciences faculty members have garnered awards for their teaching and research accomplishments from the University of Illinois and their respective colleges and professional societies. Research is a vital component of graduate training. Research support for Nutritional Sciences faculty is obtained from Federal and State agencies, commodity groups and industrial organizations.

Organization: The diversity inherent to the field of nutrition is reflected in our faculty and students. The Division currently consists of 67 faculty members representing 19 different departments located in 9 schools or colleges on the Urbana-Champaign campus. Faculty are voted into membership and membership is reevaluated every 5 years. The Executive Officer of the Division is the Director who is advised and assisted by the Associate Director, an elected Executive Committee, and an appointed External Advisory Committee, as well as numerous standing and ad hoc faculty committees. The Executive Committee is comprised of nine faculty members, including at least one from each of the following four colleges (Agricultural, Consumer and Environmental Sciences; Applied Health Sciences; Veterinary Medicine; and Medicine). These faculty members are elected by their peers to serve for 3year terms. In addition, the Executive Committee contains one graduate student representative who is elected by the Nutritional Sciences Graduate Student Association (described in Section S). The External Advisory Committee consists of leaders in industry and academia. The External Advisory Committee visits campus once a year in the fall. Students are expected to participate in the External Advisory Committee/Graduate Student forum.

<u>Graduate Program</u>: The Nutritional Sciences graduate program is designed to enable students with varying academic backgrounds to obtain expertise in nutrition with emphasis in their own area of specialization. The quality of our program is achieved and maintained in three ways: (1) admission standards, wherein applicants are judged on previous academic performance, career goals and professional potential; (2) faculty who are recognized for excellence in their field, high standards of teaching and research, and dedication to service; and (3) a curriculum that provides for flexibility within a strong framework of basic coursework.

**Our Vision**: To prepare transformative leaders in nutrition.

<u>Our Mission</u>: To provide an exceptional interdisciplinary nutrition graduate program through innovation, education, and discovery.

#### In support of our mission, DNS values:

An interdisciplinary/transdisciplinary conviction to nutrition training

- Initiatives that incorporate nutrition into transdisciplinary research
- Innovative techniques and novel analytical approaches to nutrition research
- Programs that enhance professional development
- · Diversity at all levels
- Ethics and responsible conduct of research
- Strategic partnerships with industry, federal agencies, and non-governmental organizations
- Effective and efficient administration

# **B. Admission Requirements**

Although most graduate students enter the program in the fall, students may begin their graduate programs during the fall (August), spring (January) or summer (June) semesters. For candidates who wish to apply for fellowships, completed application materials should be received by December 15 for full consideration for the following fall semester. Application deadlines are as follows: February 15 for summer, April 1 for fall and October 1 for spring. International applicants also must submit evidence that they have sufficient financial support for the length of their graduate study program.

**Coursework and GPA**: Applicants should have a Baccalaureate (B.S. or B.A.) degree from an accredited university. The minimum GPA for admission is 3.00 (A = 4.00) for the last 2 years of coursework. Students with GPAs less than 3.00 may be accepted on "limited status" for one semester until they qualify for consideration for "full status" by the Graduate College. Students will be expected to remove any course deficiencies during the first two semesters of graduate study. Deficiencies are usually met by an appropriate selection of courses or by passing an appropriate proficiency examination. Students should consult with their adviser.

**Application Process**: Applicants may apply online at Graduate College Admissions.

Applicants are strongly encouraged to contact faculty members whose research interests are most compatible with the student's objectives and discuss the possibilities of initiating graduate study with that faculty member. This is an important part of the admission process as it is the practice of the Division of Nutritional Sciences to admit a student only when a faculty member has agreed to serve as the student's major professor and provide a research assistantship. An exception may be made for students with fellowship support who may choose to do a laboratory rotation their first semester.

**English Proficiency**: Applicants whose native language is not English (including U.S. citizens), must take the Test of English as a Foreign Language (<u>TOEFL</u>) exam within two years prior to enrollment. The Division requires a TOEFL score of at least 550 on the paper test, 213 on the computer test, and 79 on the iBT TOEFL. Alternatively, the International English Language Testing System (IELTS) test can be taken, with a minimum score requirement of 6.5, or the Duolingo English test\* may be taken with a minimum score of 115. You may be exempt from this testing if you have completed at least 2 years of full-time study in a country where

English is the primary language, and in a school where English is the language of instruction, within five years of the proposed date of enrollment at the University of Illinois. \*The Duolingo English test cannot be used to satisfy the English proficiency requirement for teaching assistants.

Students whose native language is not English also are required to take the English as a Second Language Placement Test (EPT) immediately upon arrival on campus. The <a href="Department of Linguistics">Department of Linguistics</a> administers this test. Candidates who have been accepted into Nutritional Sciences, but have not taken the EPT, will be enrolled on "limited status" in the Graduate College until such time that the EPT is taken. No minimum EPT score is required for admission; however, based on test results it may be recommended that students enroll in ESL courses. Upon satisfactory removal of the language deficiency, the Department of Linguistics will notify the Graduate College, and the student's status will be converted to "full," provided no further conditions have been placed on his or her admission.

Once on campus, applicants applying for Teaching Assistantships must also pass the <u>Oral English Assessment Interview</u> (OEAI), which is administered by the Department of Linguistics.

# **C.** Description of Degree Programs

M.S. or Ph.D. in Nutritional Sciences: The Division provides an interdisciplinary training program leading to the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. Specific requirements are fully described in **Sections G - H** and in **Appendices II - VI**. In addition, qualified students have the opportunity to participate in other joint degree programs which are described below. These programs are administered by the College of Applied Health Sciences (Ph.D.- M.P.H.), Department of Food Science and Human Nutrition (R.D.) and the College of Medicine (M.D.- Ph.D.), respectively.

<u>Joint Ph.D.- M.P.H.</u>: The Division participates in a joint degree program with the College of Applied Health Sciences, which administers the Master of Public Health (M.P.H.). Students may apply to this program prior to beginning graduate school, or while they are already in their Ph.D. or M.P.H. degree programs. Specific degree requirements are fully described in **Section H** and in **Appendix VIII**.

Graduate Dietetic Clinical Internship: The Department of Food Science and Human Nutrition administers an Academy of Nutrition and Dietetics (AND) accredited dietetic clinical internship program, which includes defined graduate course requirements and a dietetic clinical internship. In order to be eligible for the graduate internship program, you must have a verification statement from an AND-accredited program indicating that you have completed all undergraduate course competencies required for Registered Dietitian Nutritionist (RDN) by the AND. Students are matched into the internship by the program using the Preselect Option.

More information on the <u>Graduate Dietetic Internship program</u> can be obtained from the Department of Food Science and Human Nutrition (260 Bevier Hall; 217-244-4498) or by contacting the Dietetic Internship Director, Jessica Madson, MS, RD.

<u>The Medical Scholars Program</u>: The Carle Illinois College of Medicine administers the Medical Scholars Program. Details are available on the <u>Medical Scholars Program website</u>.

#### D. Advisers and Directors of Thesis Research

Selecting an Adviser: Upon acceptance into the graduate program, each student will have a faculty adviser who will also serve as the Director of Thesis Research for the student. Selection of the adviser is essentially a mutual agreement between the student and a faculty member. In most cases, students will have selected an adviser through correspondence or other personal contacts prior to arriving at the University. The adviser will be responsible for guiding the student through a successful program of graduate study. The adviser's advice and consent are necessary on matters pertaining to the student's academic program while at the University, including selection of courses, directing the student's research program, selection of committee members for the Advisory committee, preliminary and final exams, and arrangements of financial and research support. It should be noted that if subsequent events indicate that the arrangement initially agreed upon proves to be unsatisfactory, either the student or the adviser is free to initiate change in the arrangement. Either party is urged to consult with the Division Director regarding any changes.

<u>Graduate Student Advisory Committee</u>: An Advisory Committee should be formed within the first semester consisting of a minimum of 3 faculty members including the graduate adviser. The role of the Advisory Committee is to assist the graduate student and graduate adviser in planning both course of study and research objectives. The graduate adviser will serve as the chair of the committee. Advisory committee members also can serve on the student's preliminary and final exam committees. Students will be required to meet with this committee as part of the annual review process but may meet more often if desired by the students and the committee.

The goal of the meeting is for the Advisory Committee to be updated on the students' progress in courses and research in the previous year and their goals and objectives for the upcoming year. These meetings should be relatively informal and should provide a forum for greater communication between graduate students and faculty in our program. The Research Adviser is responsible for completing the Annual Review Form with input from the Advisory Committee. The Advisory Committee is asked to provide a candid evaluation of the students' progress.

Areas of Expertise: The Division is composed of faculty whose research interests cover many disciplines within nutrition. Descriptions of faculty research interests and a listing of recent publications are available on the <u>Division website</u>. In order to ensure students are familiarized with a breadth and depth of material, the Division requires that preliminary and final exam committees contain at least one faculty member from a different area of expertise than the student and their adviser. For example, a committee generally will not consist only of faculty members from the same department or area of expertise (e.g., clinical nutrition or ruminant nutrition). The faculty composition of examination committees must be approved by the Director of the Division.

#### E. The Curriculum

<u>General Information</u>: All graduate students are enrolled in the Graduate College. The Graduate College has jurisdiction over all programs leading to advanced degrees; however, the actual initiation, development and day-to-day administration of advanced degree programs is delegated to the individual graduate program, in this case, the Division of Nutritional Sciences.

Students should review the <u>Graduate College Handbook for Students</u>, <u>Faculty and Staff</u> and refer to it when necessary. **THE PRIMARY RESPONSIBILITY FOR MEETING ALL REQUIREMENTS AND** 

# ENSURING PROPER PROGRESS TOWARDS DEGREE OBJECTIVES LIES WITH THE STUDENT.

<u>Graduate Credit</u>: Graduate credit (i.e., the measurement of course load) is in terms of "hours". Courses in the 400-series provide either graduate or undergraduate credit and are open to both graduate and undergraduate students. Courses in the 500-series (except for some courses such as Foreign Languages) carry graduate credit and are restricted to graduate students.

<u>Transfer of Credit</u>: Students who have completed graduate course work at another university, but have not received an M.S. degree, may petition for transfer of credit towards their graduate degree requirements at the UIUC. Courses must have been completed within the past 5 years with a grade of A or B. A maximum of 12 hours of transfer credit can be applied towards a UIUC graduate degree. The academic adviser, the Division Director and the Graduate College must approve all transfer of credit.

<u>Grading System</u>: The cumulative grade point average (GPA) is computed on a 4-point scale. The GPA is computed at the end of each term using only grades of A+ through F. If a grade of D or F is received, students should consult their advisers to determine if the course is to be repeated. Repetition of a course does not eliminate the low grade from the transcript or from computation of the GPA, i.e., the grade earned in the repeated course will also be recorded in the transcripts, and both grades will be used in computation of the GPA. Grades contribute the following number of points towards the GPA computation (**Table 1**). In addition, other grade symbols are assigned for selected courses but are not included in the computation of the GPA (**Table 2**).

**Table 1**. Grade point assignments for letter grades.

| Grade | Grade Point | Grade | Grade Point |
|-------|-------------|-------|-------------|
| A+    | 4.0         | C+    | 2.33        |
| Α     | 4.0         | С     | 2.00        |
| Α-    | 3.67        | C-    | 1.67        |
| B+    | 3.33        | D+    | 1.33        |
| В     | 3.00        | D     | 1.00        |
| B-    | 2.67        | D-    | 0.67        |

**Table 2**. Definition of other grade symbols appearing on transcripts.

| Symbol | Definition  |
|--------|---|
| ABS    | Absent from final exam without an acceptable excuse. If not reconciled in an approved manner, this will result in an F grade. |

| CR/NC* | Credit/No Credit. Used only if students have registered for a course under the Credit/No Credit option with the approval of the Division and their adviser. Those students who have signed up for the Credit/No Credit option will be given a final grade of "CR" for earning regular grades of A, B, or C. "NC" will be given for earned grades of D or F. Nutritional Sciences courses may NOT be taken on a Credit/No Credit option. This includes courses taught by other departments, but which are cross listed with Nutritional Sciences (e.g., FSHN 510 vs. NUTR 510). Not more than 4 hours of coursework taken on a Credit/No Credit basis will be counted towards the 24 hours total required for the M.S. degree. |
|--------|---|
| DFR    | Grade temporarily deferred. Used only in research and other approved courses, which extend beyond one semester. The time limit for the DFR grade to revert to F is the same as for I grade.   |
| I      | Incomplete. Given when the instructor has granted an extension of time to a student who has not completed the final examination or other requirements for the course. An incomplete grade must be replaced by a letter grade no later than the end of the next semester in which the student is enrolled. Failure to complete the work within this time automatically results in an F after one semester.   |
| S/U    | Satisfactory/Unsatisfactory. Used as the final grade in thesis research (NUTR 599), seminar (NUTR 500) and certain other approved University courses. Not computed into the GPA   |
| W      | Authorized withdrawal from a course. No grade is given.   |

<sup>\*</sup> No more than 4 hours may be graded CR/NC for every 8 hours of graded courses (excluding thesis and non-credit seminars). Only certain courses will be approved for Credit/No Credit.

Minimum GPA: Students are required by the Division of Nutritional Sciences to maintain a minimum GPA of 3.00. Graduate students should remember that maintaining an adequate GPA does not in itself ensure continuation in an advanced degree program. Other skills and aptitudes, evaluations by instructors and faculty, and a satisfactory rate of progress towards the graduate degree also will be considered in Division decisions to permit students to continue in master's and doctoral programs. Monitoring of student progress, including the Graduate College Probation Policy, is described under Section K.

**Nutritional Sciences Courses**: Nutritional Sciences course rubrics and descriptions are provided in **Appendix I**.

# F. Registration Procedures

<u>Self-Service</u>: A student currently enrolled at the UIUC campus may advance-enroll for the following semester using Student <u>Self-Service</u> online registration system. Graduate students are encouraged to advance enroll in order to assure space in classes during the following semester. Advance enrollment for spring semester usually takes place during the first or second week of November. Advance enrollment for fall and the summer session is during March-April. New students will receive schedule and enrollment information before the beginning of their first semester or when they arrive on campus.

<u>Auditing Courses</u>: A student who wishes to audit a course without registering for credit may submit a completed <u>Auditor's Permit</u> to the Graduate College. Such courses are **NOT** to be included on Self-Service online registration system. Official audit courses appear on the transcript but do not count towards registration requirements and cannot be converted to a credit basis. Note that courses officially audited cannot be repeated for graduate credit and students may be assessed an audit fee.

Registration Hours for Fall/Spring and Summer Semesters: A student is considered full-time when registered for at least 8 hours during the fall and spring semesters and 4 hours during the summer semester. Summer registration is not required for all students. However, the Division strongly encourages students to do so. If a student does not register for the summer, the Division and the student's adviser will not receive credit for the student during that time. In addition, the student will have to purchase health insurance, if needed, and other university services may not be available to the student. Students with fellowships are required to maintain full-time registration throughout the year, and students with educational loans usually are required by the lender to be a full-time student throughout the year. International students should consult International Student Scholar Services (ISSS) with any questions about their registration status.

<u>Tuition and Fees</u>: Students registered on campus are assessed tuition on the basis of residence classification and number of credit hours taken. Information on tuition and fees for residents, non-residents and international students can be found at the <u>Office of the Registrar's Tuition and Fee Rates page</u>.

Residence: International students and domestic students who are not residents of Illinois are charged out-of-state tuition. However, graduate students who receive fellowships, assistantships and some scholarships also receive a tuition and partial fees waiver and, therefore, do not pay any tuition. For students who wish to establish residency, the University of Illinois requires you to be a resident of Illinois for one calendar year. Residency involves being gainfully employed and actually living in the state for one year and taking actions that link you to the state of Illinois. It also requires that you reside in Illinois primarily for reasons that are NOT related to receiving an education. If a student wishes to petition to change their residency status, a petition can be downloaded from the University of Illinois Residency Information page. Full requirements for residency are outlined at this site. It is important that actions be completed before the beginning of the year in which you are attempting to establish residency. The University of Illinois definition of residency may be different than other Illinois institutions of higher education or government agencies.

<u>Continual Registration</u>: Doctoral students who (a) have passed the preliminary examination and completed the course and hour requirements for the doctoral degree, (b) are making no use of university facilities, and/or (c) have left campus, are not required to maintain registration. However, upon completion of their thesis research, doctoral students must be registered during the term in which they take their final examination. Students who do not enroll for a calendar year must apply for re-entry.

Doctoral students who have taken the preliminary examination and completed all requirements and who are not in residence may register in absentia during a term when they do not expect to receive a degree in order to maintain continuous registration. Petitions to the Graduate College for "in absentia" registration are generally approved, provided the student has not exceeded the time limit.

Doctoral students <u>must</u> be registered during the semesters they take their preliminary and defense exams. Students need not be registered at the University for the semester in which they receive the M.S. degree, provided all course and research requirements are completed.

**Encumbered Registration**: Registration may be encumbered if students have not provided a final transcript from previous schools attended by the beginning of their second semester at the University of Illinois. Registration also may be encumbered for library fines, university parking fines, outstanding housing bills, etc., from prior semesters.

# G. Course Requirements and Procedures for the M.S. in Nutritional Sciences

Summarized below are the Graduate College and Division of Nutritional Sciences requirements, which must be met by candidates for the Master of Science (M.S.) degree. A typical M.S. degree program requires two to three years for completion.

#### **Graduate College Requirements:**

- a. A minimum of 32 hours of credit is required. All hours must be at the 400- or 500-level.
- b. At least half of the required credit hours must be earned in courses meeting on the Urbana-Champaign campus or in courses meeting in other locations and approved by the Graduate College for residence credit.
- c. At least 12 of the 24 coursework hours must be in 500-level courses; furthermore, at least 8 of these 12 hours must be from the Nutritional Sciences Division program (including cross-listed courses).
- d. All requirements for the M.S. degree must be completed within 5 years of initial registration in the Graduate College.
- e. A student need not be registered for the semester in which he/she receives the M.S. degree, provided all course and research requirements have been completed and he/she is not making use of University facilities (e.g., if the student is only writing his/her thesis).

# **Division of Nutritional Sciences Requirements:**

- a. The required and recommended minimum course requirements for the M.S. degree are summarized in **Appendix II**. Requirements include: course(s) in general biochemistry (if not previously completed within 2 years of entering the program), NUTR 510 or 561 (see below), 2 hours of seminar (FSHN 593, NUTR 590 or NUTR 591) and statistics (minimum 3-4 hours). One additional course in general nutrition is also required. Approved courses in general nutrition are shown in **Appendix III**. NUTR 511 is highly recommended for M.S. students.
- b. NUTR 510 is taught as modules that may be five weeks, eight weeks, or full semester in length; each module is 1-3 hours credit. NUTR 561 is taught as eight-week modules; each module is 2 hours credit. M.S. students are required to take a minimum of 3 hours of 510 or 561 modules. A maximum of 5 hours may be counted towards the M.S. degree requirements.
- c. All candidates must enroll in NUTR 500 (Seminar) for 0 hours each semester that they are registered in the program. Attendance is required and sign-in sheets are provided at the seminar. The seminar requirement for M.S. candidates is FSHN 593, NUTR 590, or NUTR 591, which instructs students in the art of seminar presentation and delivery.
- d. Nutritional Sciences courses may NOT be taken on a Credit/No Credit option. This includes courses taught by other departments, but which are cross listed with Nutritional Sciences (e.g., FSHN 510 vs. NUTR 510). Not more than 4 hours of coursework taken on a Credit/No Credit basis will be counted towards the 24 hours total required for the M.S. degree.
- e. A research thesis must be submitted for the M.S. degree. Details on the preparation and submission of the thesis are covered in <u>Section J</u> of this handbook. The thesis must be submitted to the committee <u>at least</u> one week prior to the final exam. The student may accumulate more credit in NUTR 599, but only 8 hours will be counted towards the M.S. degree. No more than 2 hours of NUTR 593 may be used in satisfying the required 24 hours of coursework (See **Appendix II**).
- f. Students are not admitted directly into a non-thesis program. However, an enrolled student may elect a non-thesis program upon consultation with their adviser and the Director of the Division. Students in a non-thesis program must complete 32 hours of coursework, 50% of which is at the 500-level (16 hours). No more than 4 hours of NUTR 593 may be counted towards the non-thesis degree. NO credit will be given for NUTR 599 for non-thesis M.S. students. At least one additional course in general nutrition is required for the non-thesis master's degree (See Appendix III). Students in the non-thesis program must also complete a comprehensive final examination. Students in the non-thesis M.S. may not hold fellowships or assistantships funded by the Division of Nutritional Sciences. See Section I Oral Examinations. Students who complete the non-thesis M.S. degree may not stay in (or return to) the Division of Nutritional Sciences to complete a Ph.D. in Nutritional Sciences.

# H. Course Requirements and Procedures for the Ph.D. in Nutritional Sciences

Summarized below are the Graduate College and Division of Nutritional Sciences requirements that must be met by candidates for the Doctor of Philosophy (Ph.D.) degree.

The doctoral program is divided into 3 stages. Fees and, in some cases, assistantship or fellowship levels can vary depending upon the stage at which the student is working.

**Stage I:** Through passing the qualifying examination.

**Stage II:** Completion of all course requirements and passing the preliminary examination.

**Stage III:** Research and other activities culminating in an approved thesis and final oral examination. Continuous registration, excluding summer sessions (see **Registration Hours** under <u>Section F</u>), must be maintained until a student has completed the unit requirements for the doctoral degree. Registration in NUTR 599 also is required for the term in which the final examination is taken, regardless of when the thesis actually will be deposited with the Graduate College or when the degree will be conferred.

#### **Graduate College Requirements:**

- a. A minimum of 96 graduate credit hours beyond the baccalaureate degree is required. If a student enters with a Master's degree, 64 additional hours are required.
- b. At least 64 hours, including thesis credit, must be taken in residence, (i.e., courses meeting on the Urbana-Champaign campus) or in courses meeting in other locations, which have been approved by the Graduate College for residence credits.
- c. All doctoral students must complete and submit an acceptable thesis. See <u>Section J</u> and the <u>Graduate College Thesis and Dissertation Preparation guidelines</u>.
- d. All requirements for this degree must be completed within 7 calendar years after initial registration in the Graduate College, <u>OR</u> for those entering with a Master's degree from elsewhere, within 6 years after initial registration. Degree candidates who have a significant interruption in their program after receiving the M.S. degree from the University of Illinois and who later return to work for the doctorate will have 6 years from the date of return to complete the degree requirements.
- e. If a student exceeds the time limit, he or she may petition for an extension. A doctoral candidate is required to take a second preliminary examination if more than 5 years have elapsed between the preliminary and the final exam.
- f. Students must be registered during the semester in which they take their preliminary and final examinations. See the **Continual Registration** under <u>Section F</u>.

### Division of Nutritional Sciences Requirements for the Ph.D. Degree:

Students may enter into the doctoral program with:

- 1) A bachelor's degree
- 2) An M.S. degree in Nutritional Sciences at UIUC

3) An M.S. degree not in Nutritional Sciences at UIUC

Required credit hours and coursework differ depending upon their academic status upon entry into the program and are described below.

#### Ph.D. beginning with a B.S. degree:

- a. A minimum of 96 hours is required.
- b. At least 40 of these hours must be coursework hours (i.e., non-thesis)
- c. The required and recommended minimum course requirements for the Ph.D. degree from the B.S. are summarized in **Appendix IV**. Requirements include: course(s) in general biochemistry (if not previously completed within 2 years of entering the program), NUTR 510 or 561 (see below), 2 hours of seminar (FSHN 593, NUTR 590 or NUTR 591) and statistics (minimum 3-4 hours). Three additional courses in general nutrition also are required. Approved courses in general nutrition are shown in **Appendix VI.** NUTR 550 is highly recommended for Ph.D. students.
- d. NUTR 510 is taught as modules that may be 5 weeks, 8 weeks or full semester in length; each module is 1-3 credit hours. NUTR 561 is taught as 8-week modules; each module is 2 hours credit. Ph.D. students are required to take a minimum of 5 hours of 510 or 561 modules. A maximum of 9 hours may be counted towards the Ph.D. degree requirements.
- e. No more than 2 hours of NUTR 593 (Individual Topics in Nutrition) can be used in satisfying the 40-hour coursework requirement.
- f. There are two seminar requirements: a non-thesis component (FSHN 593, NUTR 590 or NUTR 591) and a thesis component (NUTR 500). Students are <u>required</u> to complete 2 hours of non-thesis seminar NUTR 590/591 (2 hours) or FSHN 593 (2 hours) but can receive credit for a maximum of 4 hours of non-thesis seminar. This can be completed as FSHN 593 (2 hours) and NUTR 590/591 (2 hours) or NUTR 590 or NUTR 591(4 hours).
  - 1a. <u>FSHN 593 (2 hours)</u>: This course instructs students on the art of preparing and delivering effective seminar presentations. Students also are given the opportunity to critique seminar presentations.
  - 1b. <u>NUTR 590 (1 hour)</u>: Discussions of current research and literature pertaining to disciplinary specializations within the Division of Nutritional Sciences. Students should enroll for 0 hours if they are not presenting a seminar. May be repeated for a maximum of 4 hours.
  - 1c. <u>NUTR 591 (1 hour)</u>: Discussions of current research and literature. 0 to 2 graduate hours. No professional credit. Approved for Letter and S/U grading. May be repeated to a maximum of 2 hours for master's students and 4 hours for PhD students.
  - 2. <u>NUTR 500 (1 hour)</u>: All Nutritional Sciences students must enroll in NUTR 500 each semester. Students should enroll for 0 hours during semesters in which they are NOT presenting a seminar. **Attendance is required and sign-in sheets are**

provided at the seminar. Students will present a seminar covering the topic of the thesis, which is considered the public portion of the student's Ph.D. Thesis defense and should be presented near the time of the student's final defense. Students should enroll for 1 hour during the semester in which they are presenting a NUTR 500 seminar. Seminars will be evaluated anonymously by faculty and students. The seminar coordinator will review the outcome of the evaluations with the student's adviser who, in turn, will review them with the graduate student.

- g. No more than 12 hours of coursework taken on a Credit/No Credit basis will be counted towards the 40-hour course requirement. No NUTR courses (including cross-listed courses) can be taken on a Credit/No Credit basis.
- h. An **ORAL QUALIFYING EXAMINATION** is required for all Ph.D. students to evaluate the student's knowledge in the field of nutrition, their ability to integrate nutrition knowledge and scientific reasoning. Completion of the qualifying examination signifies the end of Stage I of the doctoral program. The qualifying examination typically will be administered after 2 semesters, if starting with a M.S., or 4-5 semesters, if starting from the B.S. The qualifying exam is closed to the public. See **Section I** for additional information on the qualifying exam.
- i. The PRELIMINARY EXAMINATION can be taken only after the student spends two or more semesters in STAGE II of the doctoral program. Thus, an additional year or more of coursework and/or research is required following completion of Stage I (see above). See <u>Section I</u> for additional information on the preliminary exam.

#### Ph.D. beginning with an M.S. degree in Nutritional Science from UIUC:

- a. A total of 64 hours is required (96 hours 32 hours from M.S. degree).
- b. Of the 64 hours, at least 16 hours must be coursework. (When added to the coursework from the M.S. degree, a minimum of 40 hours of post-baccalaureate coursework will have been completed for the Ph.D.). Requirements completed as part of the M.S. degree from the Division of Nutritional Sciences and excess course hours from the M.S. program can be counted towards the Ph.D. coursework requirement, with the approval of the adviser and the Division Director.
- c. The required and recommended minimum course requirements for the Ph.D. degree from the M.S. are summarized in **Appendix V**. Requirements include: course(s) in general biochemistry (if not previously completed within 2 years of entering the program), NUTR 510 or 561 (see below), 2 hours of seminar (FSHN 593, NUTR 590 or NUTR 591) and statistics (minimum 3-4 hours). Two additional courses in general nutrition also are required. Approved courses in general nutrition are shown in **Appendix VI.** NUTR 550 is highly recommended for Ph.D. students.
- d. NUTR 510 is taught as modules that may be 5 weeks, 8 weeks or full semester in length; each module is 1-3 credit hours. NUTR 561 is taught as eight-week modules; each module is 2 hours credit. Ph.D. students are required to take a minimum of 5 hours of 510 or 561 modules. A maximum of 9 hours may be counted towards the degree requirements.

- e. Up to 2 hours of NUTR 593 (Individual Topics in Nutrition) may be used to satisfy the 16-hour course requirement. (NOTE: This could include 2 hours of NUTR 593 taken in the M.S. program).
- f. Seminar requirement: NUTR 500 (1 hour). All Nutritional Sciences students must enroll in NUTR 500 each semester. Students should enroll for 0 hours during semesters in which they are NOT presenting a seminar. Attendance is required and sign-in sheets are provided at the seminar. Students will present a seminar covering the topic of the thesis, which is considered the public portion of the student's Ph.D. Thesis defense and should be presented near the time of the student's final defense. Students should enroll in 1 hour during the semester in which they are presenting a NUTR 500 seminar. Seminars will be evaluated anonymously by faculty and students. The seminar coordinator will review the outcome of the evaluation forms and discuss them with the student's adviser who, in turn, will review them with the graduate student.
- g. NUTR 590/NUTR 591. Doctoral students can enroll in a maximum of 4 hours of NUTR 590 or NUTR 591. If 2 hours were taken towards the M.S. requirements, 2 additional hours may be taken. If FSHN 593 was taken towards the M.S. requirements, 2 hours of NUTR 590 or NUTR 591 may be taken during the doctoral program.
- h. No more than 8 hours of coursework taken on a Credit/No Credit basis will be counted towards the 16-hour course requirement. (NOTE: This is in addition to any taken during the M.S. program, i.e., a maximum of 12 hours of Credit/No Credit will be counted towards the 96-hour requirement). No Nutritional Sciences courses (including cross-listed courses) can be taken on a Credit/No Credit basis.
- i. An **ORAL QUALIFYING EXAMINATION** is required for all Ph.D. students to evaluate the student's knowledge in the field of nutrition, their ability to integrate nutrition knowledge and scientific reasoning. Completion of the qualifying examination signifies the end of Stage I of the doctoral program. The qualifying examination typically will be administered after 2 semesters, if starting with a M.S., or 4-5 semesters, if starting from the B.S. The qualifying exam is closed to the public. See **Section I** for additional information on the qualifying exam.
- j. The **PRELIMINARY EXAMINATION** can be taken only after the student spends two or more semesters in STAGE II of the doctoral program. Thus, an additional year or more of coursework and/or research is required following completion of Stage I (see above). See **Section I** for additional information on the preliminary exam.

# Ph.D. beginning with an M.S. degree NOT in Nutritional Sciences from UIUC:

- a. All requirements are identical to students pursuing the Ph.D. from a M.S. degree in Nutritional Sciences with the exception that:
  - i. Of the 64 hours, at least 24 hours are to be coursework.
  - ii. Two courses in general nutrition also are required. Approved courses in general nutrition are shown in **Appendix VI**. NUTR 550 is highly recommended for Ph.D. students.

iii. There are two seminar requirements: a non-thesis component (FSHN 593, NUTR 590 or NUTR 591) and a thesis component (NUTR 500). Doctoral students can enroll in a maximum of 4 hours of NUTR 590 or NUTR 591. If 2 hours were taken towards the M.S. requirements, 2 additional hours may be taken. If FSHN 593 was taken towards the M.S. requirements, 4 hours of NUTR 590 or NUTR 591 may be taken during the doctoral program. (See description under the B.S. to Ph.D. degree requirements on page 16).

#### Ph.D. as part of the Medical Scholars Program:

Specific admission and course requirements for the medical scholars Ph.D. program will be determined on an individual student basis in consultation with the Carle Illinois College of Medicine.

#### Ph.D. as part of the joint Ph.D. - M.P.H. Degree Program:

The Ph.D. in Nutritional Sciences can be earned jointly with the M.P.H. Specific course requirements for students in this joint degree program are outlined in **Appendix VII**. Joint degree candidates must complete the same examination milestones as described for other DNS Ph.D. students (oral qualifying exam, preliminary examination, and final exam or defense). For more information on these exams see **Section I**.

#### I. Oral Examinations

The Division of Nutritional Sciences provides 4 types of oral examinations: a Ph.D. qualifying examination, Ph.D. preliminary examination and final exams for the M.S. and Ph.D. degrees. M.S. candidates are only required to take the M.S. final examination. Doctoral candidates are required to successfully complete the qualifying examination, the preliminary examination, and the Ph.D. final examination. The goals and expectations of each exam are described below. The recommended timing of oral examinations is shown in **Appendix VIII**.

#### Final Examination for the M.S. Degree:

A final examination is required of all M.S. candidates (including non-thesis program a. students). The examination will be oral and will be taken after all requirements have been met. The M.S. final exam is closed to the public. The adviser, in consultation with the student, will select at least 2 other faculty members forming a committee of at least 3 members, one of which must be from an area of research expertise other than the student's (usually a Nutritional Sciences faculty member in a different department). Two of the 3 committee members must be tenured. The committee membership must be submitted to the Division Assistant Director and approved by the Director at least 3 weeks in advance of the final exam. The adviser will be a member of the committee but cannot serve as the chair. The restriction of "Area of Research Expertise" also applies to joint appointees, emeritus professors, and adjunct professors in the Division, but not to faculty in other departments who may be in the same general area. Students in the thesis program are reminded that the final exam will not be restricted to the defense of the M.S. thesis but will be a comprehensive examination covering all aspects of nutritional sciences. Students in a

**non-thesis program** should consult with committee members prior to the examination to seek advice regarding the comprehensive examination.

b. Results: The decision of the committee to pass the student must be UNANIMOUS. Note that this applies regardless of the number of committee members. A student failing the M.S. examination may retake the exam again within 6 months, but no later. A second failure will result in the student being dropped from the M.S. program. The Division Director will be apprised of the decision of the committee by means of an M.S. Exam Form (Appendix IX). For students in the thesis program, the M.S. thesis, and the Thesis/Dissertation Approval form must also be signed and submitted upon final approval of the thesis. However, if the Committee requires substantial revision of the thesis, the committee may choose not to sign these forms at the final exam but will wait until an acceptable thesis is submitted.

#### Ph.D. Qualifying Examination Procedure:

#### a. **Purpose**:

The goal of the Qualifying Examination is to effectively evaluate a doctoral candidate's mastery of foundational nutrition knowledge.

#### b. Format:

The Qualifying Examination will be an oral examination and closed to the public. The Qualifying Examination will be 2 hours in length and will examine the student's ability to integrate and apply basic nutrition knowledge.

#### c. Scope:

The Qualifying Examination will assess the candidate's knowledge of the biological and biochemical bases of nutrition that encompasses the molecular, cellular, tissue, and organismal aspects of macronutrients (protein, fat, carbohydrate) and micronutrients (minerals, trace elements and vitamins). Students will be examined on the digestion, absorption and metabolism of these nutrients, the classic diseases associated with nutrient deficiency and toxicity, and the influence of nutrition on health and risk of chronic diseases. In addition, students should be aware of how nutrient requirements and metabolism vary throughout the lifecycle. Lastly, students should be aware of how biochemical and physiological requirements are translated into recommendations, such as Dietary Reference Intakes, Dietary Guidelines for Americans, and MyPlate.

#### Good Reference Texts:

- 1. Erdman, J. W., MacDonald, I. A. & Zeisel, S. H. (Ed) Present Knowledge in Nutrition, ILSI Press, 2001 Jun 18, 2012, Wiley-Blackwell (10th edition).
- 2. Allen, L., M., Donovan, S., Ney, D., & Stover, P. Securing the Future of Nutritional Sciences Through Integrative Graduate Education. The Journal of Nutrition. 2002. 132:779784.

# d. **Timing**:

Qualifying Examinations will be offered at the beginning of the fall and spring semesters of each academic year. Students are urged to take their Qualifying Examinations as early as possible in their programs. Students entering the graduate program from the B.S. degree are recommended to take the Qualifying Examination at the end of their second year in the program. Students entering the graduate program with an M.S. degree are recommended to take the Qualifying Examination at the end of their first year in the program. However, if their B.S. or M.S. degrees are not in nutrition, they may require an additional 6 to 12 months to master the nutrition knowledge necessary to successfully complete the Qualifying Examination.

#### e. **Examination Committee**:

In order to provide a consistent and fair examination of core nutrition knowledge, all qualifying examinations will be administered by the standing Division of Nutritional Sciences Qualifying Examination committee. This committee will be composed of Nutritional Sciences faculty members and will include three active members and one alternate member. Committee members will serve 4-year terms, 1-year as an alternate then 3-years as a member. One new faculty member will rotate onto the committee each year.

A member of the Qualifying Examination committee may not serve on his/her student's exam. The alternate will serve in their place. The alternate will also serve on examinations that must be scheduled during a time when one of the members of the committee is unavailable.

#### f. Results:

The decision of the committee regarding the Qualifying Examination will be "pass", "fail", or "decision deferred". The decision of the committee to pass a student must be UNANIMOUS. The candidate will be informed of the results immediately after the examination.

The decision following the first Qualifying Examination will be either "pass" or "decision deferred". A student given a "decision deferred" will be instructed as to what action must be taken prior to the second examination. Recommendations could include correcting deficits in specific areas of nutrition knowledge identified during the examination or enrolling in a course.

Students receiving a "decision deferred" must retake the examination during the next scheduled period (August or January). The committee will have the option of adding a written component to the second exam if they feel it will provide a better assessment of the student's knowledge. The decision following the second examination will be either "pass" or "fail". If the second exam is failed, the student will not be allowed to progress to the Preliminary Exam and will be advised to complete the M.S. degree or if the student already has an M.S. degree, they will be dismissed from the program.

A student who disagrees with the committee's decision on the Qualifying Examination may appeal the case in writing within one month of the examination date to the Chair

of the Division Grievance Committee. A copy of the letter shall also be sent to the Program Director. The grievance will be handled as outlined in <u>"Policy and Procedures on Grievances by Graduate Students"</u> of the Graduate Student Handbook.

#### Ph.D. Preliminary Examination Procedure:

#### a. **Timing**:

A preliminary examination will be conducted upon completion of one or more years of formal courses and/or research after entering the doctoral program defined as STAGE II.

#### b. **Format**:

The examination will be oral and will be closed to the public.

#### c. **Requirements**:

The candidate is to prepare a thesis research proposal. A general format is shown in **Appendix X**, but students should consult with their adviser regarding the format of the document. **Preliminary proposals must be submitted to the committee at least one week prior to the examination.** A list of courses (including credit hours and grades) taken during graduate study at UIUC also should be submitted to the committee. Students must be registered during the term they take the preliminary exam.

## d. **Scope**:

The preliminary examination will assess the candidate's ability to conduct independent research in his or her area of research expertise, and the merits of the candidate's research proposal.

# e. **Committee Composition**:

The committee is to be made up of faculty members from the professorial ranks. This committee is responsible to the Dean of the Graduate College. The adviser, in consultation with the student, will select at least 3 other faculty members to form a committee with a minimum of 4 members. At least 3 committee members must be members of the Graduate Faculty and at least 2 must be tenured. In addition, at least three members must be Nutritional Sciences faculty and one member must be in an area of research expertise different from that of the adviser or student. The chair of the committee will be a member other than the adviser and must be a member of the Graduate Faculty. The names of the committee members are sent **at least 3 weeks** in advance to the Assistant Director. The Division Director will make the final committee recommendation to the Dean of the Graduate College, who officially appoints the committee.

# f. Results:

The decision of the committee regarding the preliminary examination will be "pass", "fail", or "decision deferred". The decision of the committee to pass a student must be UNANIMOUS. The candidate will be informed of the results immediately after the examination. The results will be transcribed on the Preliminary Examination Result form, which will be transmitted to the Division office for submission to the Graduate College within 30 days (generally, this is the responsibility of the adviser or the Exam Committee Chair). For those given a "decision deferred", the student will be instructed as to what action must be taken to pass the examination. The committee may not remain in adjournment for periods greater than 6 months (i.e., remedial action by the student and/or the preliminary examination must be completed within 6 months).

#### g. **Retake**:

Retaking of a failed preliminary examination must occur no earlier than 3 months, and no later than 6 months, after the first examination. It cannot be taken a third time (i.e., the student's doctoral program will be terminated if he or she fails the preliminary examination twice). Successful completion of the preliminary examination is considered the end of Stage II of the doctoral program.

# Ph.D. Final Examination Procedure:

## a. **Purpose and Format**:

The final examination is essentially a defense of the Ph.D. thesis. In the Division of Nutritional Sciences, the defense process is divided into two parts: i) an open presentation of the results of the thesis work, presented as part of the NUTR 500 seminar schedule; and ii) a separate discussion and deliberation by the student and the student's Ph.D. thesis committee. This discussion and deliberation may occur immediately following the student's presentation in NUTR 500 or may occur on a different date. Final examinations are oral and open to the public. The chairperson directs the examination. While the final examination is open, the deliberations and decision of the final examination committee are held in an executive session.

#### b. **Committee Composition**:

The committee is to be composed of faculty members from the professorial ranks. This committee is responsible to the Dean of the Graduate College. The adviser, in consultation with the student, will select at least 3 other faculty members to form a committee with a minimum of 4 members, at least 3

of which are members of the Graduate Faculty and at least 2 of which are tenured. In addition, at least three members must be Nutritional Sciences faculty and one member must be in an area of research expertise different from that of the adviser or student. Also, the committee must be comprised of members from two or more departments. The Chairperson of the committee will be a member other than the adviser and must be a member of the Graduate Faculty. The names of the committee members are sent at least 3 weeks in advance to the Assistant Director. The

Division Director will make the final recommendation to the Dean of the Graduate College, who officially appoints the committee.

# c. Thesis Submission:

The thesis must conform to the style as recommended by the <u>Graduate College</u> <u>Thesis Guidelines</u>. See Section J for further information on preparation of the thesis. The thesis must be submitted to the committee <u>at least one week</u> prior to the final exam date.

#### d. Results:

Decisions of the Committee for the Final Examination are recorded on the Final Exam Result form. The voting members of the committee must make one of two decisions:

- Pass the candidate: The candidate passes the final exam if the Director(s) of Research vote "Pass" and no more than one of the remaining Committee members' votes "Fail." The Committee will indicate on the Final Exam Result form if revisions are required. The Committee will sign the Thesis/Dissertation Approval form after the completion of the examination and the completion of any required revisions.
- Fail the candidate: The candidate fails the Final Exam if a Director of Research votes "Fail" or if two or more Committee members vote "Fail." A student failing the Final Examination must take the Final Examination again no earlier than 3 months and no later than 6 months after the first exam. A new Final Examination committee must be appointed by the Graduate College. This committee may, but does not have to, consist of the same members as the original Final Examination committee. Failure to pass the Final Examination again will result in the student being dropped from the doctoral program.

## J. Preparation of the Thesis

Guidelines and requirements for preparation of the thesis are provided by the Graduate College on the <u>Thesis Office website</u>. The student is responsible for preparing the thesis to comply with these requirements. Included on the Graduate College website are deadlines for submission of theses prior to graduation. Students planning to participate in commencement need to be mindful of these dates. The only additional requirement is that the Division requires the title page for a M.S. thesis to include a list of the members of the student's final examination committee under the heading "Master's Committee." It should be indicated after the committee members' names if they were the Director of Research or Chairperson.

The thesis should include an abstract, an introduction to the problem investigated, and a review of literature on previous work related to the thesis topic, clearly defined objectives, methodology, results, discussion, conclusions, and list of references. A copyright page is also strongly suggested. The thesis may, but need not, be in the form of individual manuscripts preceded by chapters including a general introduction and literature review. However, in such a case, the thesis must include a final chapter that discusses and summarizes the impact of the body of work encompassed in the thesis. The thesis must be reviewed and approved by the student's academic adviser before the final examination. **Prior to final submission of** 

the thesis, students must have the thesis approved by the Division Assistant Director and then the Graduate College.

Students must provide the Division with a PDF copy of the final thesis. The cost of thesis preparation, including word processing, photocopying, and binding, is the responsibility of the student. Secretarial assistance, office supplies, department copy machines and computers used by Division staff are not available to graduate students for this purpose.

Since the University participates in the ProQuest/UMI Dissertation Publishing program, there is a need to obtain copyright releases for previously published work. This includes securing all necessary copyright clearances for any previously copyrighted material, where such copyright is held by others that will be reprinted in the finished thesis or dissertation. Material for which reprint permission is required includes, but is not limited to, figures, tables, illustrations, and substantial portions of text, which generally are defined as the lesser amounts of either 300 words or 10 percent of the whole. Permission also is required to reprint works of a student's own authorship to which the student no longer retains the copyright. In such cases, the student will need to contact the current rights-holder.

If a student has chapters of the thesis or dissertation that are to be published AFTER it is deposited, the student is encouraged to consider the option of having the thesis embargoed. This means that the thesis will not be immediately available to be downloaded. Why? Because there is a possibility that if the thesis is "published" on the web, and available through a search engine, a journal may not accept it for publication because it has been previously published. This, hopefully, will provide sufficient time for the student to get the manuscript(s) accepted. These options should be discussed with the student's adviser. Students should carefully review the Release Options information.

## K. Evaluation of Graduate Student Progress

The primary responsibility for monitoring a student's progress towards his or her academic objectives rests with the adviser and the graduate student's Advisory Committee (see **Graduate Student Advisory Committee** under <u>Section D</u>). In addition, the Graduate Review Committee of the Division annually reviews the progress of each student. This committee evaluates whether progress in the following areas is satisfactory:

<u>Coursework</u>: The adviser and the nature of the student's appointment determine the course load a graduate student is permitted. Fellowship holders are expected to enroll in a full course load while they are on the fellowship (at least 8 hours per semester during the academic year and 4 hours during the summer session). These hours can include courses satisfying language requirements or deficiencies. Fellows holding additional assistantships up to 25%-time still will have to meet this requirement.

Academic performance in courses: This will be reflected in the GPA. Students who have an overall graduate GPA below 3.0 at the end of any semester of enrollment will be placed on probation. Once a student has been placed on probation, he or she will have one semester to raise his/her overall graduate GPA to meet their program's minimum requirement. Failure to do so will result in dismissal from the Graduate College. For full details, see the Graduate College Probation Policy.

**Research**: This is evaluated primarily by the number of semesters and the number of credit hours of NUTR 599 the student has completed as well as submission of abstracts and publications. The committee monitors whether students have taken their Qualifying and Preliminary Exams at the appropriate time points. The adviser's written evaluation of the student's research progress will be taken into account as well.

#### L. Exit Procedures

- To support alumni tracking for university reporting, students should complete the Nutritional Sciences Exit survey and submit it to the Division office along with an electronic (PDF) copy of their thesis (see <u>Section J</u>). Once these items have been received in the Division Office, the final paperwork for the degree will be processed.
- 2. All original data including lab notebooks must be given to the student's research adviser prior to leaving campus.
- 3. Some employers will require verification of degree completion. Therefore, students may submit a "<u>Degree Certification Letter Request</u>" through the <u>Graduate College</u>. Be sure to submit this request prior to the deadline, which can be found on the Graduate College calendar.

# M. Academic Integrity

The University of Illinois is committed to learning, and truth and accuracy in research. Integrity and intellectual honesty in scholarship and scientific investigation are of paramount importance. Federal and state sponsors of research require that all faculty, staff, and students engaged in sponsored research be informed regularly about campus policies on research integrity.

The University-wide procedures for addressing particular instances of unethical conduct in research and publication are outlined in the <u>Policy and Procedures on Academic Integrity in Research and Publication</u>. Under this policy, all members of the University community are expected to uphold high standards of academic integrity and ethical behavior in research and publication. Any practice or conduct by a member of the University community that seriously deviates from commonly accepted ethical standards within the professional community for proposing, conducting, and publishing research constitutes academic misconduct in violation of University policy.

Academic misconduct, as defined in the University Policy, includes but is not limited to:

- Fabrication or falsification of data, including reporting of credentials or other academically related information that is intentionally misleading, selective, or deliberately false;
- Unacknowledged appropriation of the work of others, including plagiarism, the abuse of confidentiality with respect to unpublished materials, or misappropriation of physical materials;

- 3. Intentional failure to comply with research regulations or requirements, including but not limited to those applying to human subjects, laboratory animals, new drugs, radioactive materials, genetically altered organisms, and standards of safety; and
- Other conduct that seriously deviates from accepted ethical standards in scholarship.
   Differences of interpretation or judgment or honest error do not constitute academic misconduct.

A student, staff or faculty member who believes that academic misconduct has occurred has several options for pursuing the matter informally. Most such problems can and should be resolved without resorting to formal procedures, but rather through consultation with an adviser, department or unit head, or the campus Research Standards Officer in the Office of the Vice Chancellor for Research (217-333-0030).

Graduate students are responsible for knowledge of and compliance with University of Illinois policies on academic integrity. Policy and Procedures on Academic Integrity in Research and Publication describes University policy and prescribes procedures for fact-finding and adjudication of allegations of academic misconduct. Although it focuses upon deterring and penalizing unacceptable conduct, its purpose is to promote compliance with the highest scholarly standards.

Graduate students are expected to adhere to the highest standards of academic integrity in all areas of their training. Typical areas in which graduate students have concerns about infractions of academic integrity, referred to as academic misconduct, include honesty in the classroom and laboratory, fabrication or falsification of data, plagiarism, lack of compliance with research regulations, allocation of credit, authorship of publications and priority of discovery. Plagiarism is often a sensitive issue because many other nations do not have the same legal restrictions as the U.S. on the unacknowledged use of the work of others. Questions on academic integrity should be directed to your faculty adviser.

Background reading on issues of academic integrity is highly recommended to all graduate students and faculty advisers. Discussion of academic and research standards between graduate students and their advisers is strongly encouraged. A good starting point is *On Being a Scientist*, published by the National Academy of Science, National Academy Press, 2101 N.W. Constitution Ave., Washington, D.C. In addition, Sigma Xi, the international honor society of scientific and engineering research has published two booklets which can be purchased from their website Sigma Xi.

- Honor in Science was first published in 1984 and is a guide to ethics and values in research. It is aimed primarily at graduate students.
- The Responsible Researcher: Paths and Pitfalls covers many ethical issues that have arisen since 1984 and is intended for a broader audience including post-docs, professors, department heads and deans. Both are valuable references.

#### N. Procedures for Appeal of Penalties for Infractions of Academic Integrity

**Background**: The Student Code, Article 1, Part 4 covers infractions of academic integrity such as cheating or plagiarism. Sections 1-403 – 1-406 describe the procedures to be

followed if an instructor believes a student is guilty of one or more infractions of academic integrity listed in Article 1, Part 4.

The student may appeal the finding or the penalty in these cases. The nature of the penalty determines who hears this appeal. This handbook section only refers to cases heard at the Division level. According to Article 1, Part 4, Section 1-404: For penalties less than a failing grade for the course, appeals of the finding and/or the penalty shall be heard within the Division according to procedures established by the Division. In no case shall this appeal result in a harsher penalty than the one originally assessed by the instructor.

<u>Appeal Procedure for the Student</u>: Article 1, Part 4, Section 1-405 indicates that the student wishing to appeal the allegation of an infraction and/or the penalty imposed should write to the course instructor within 5 days of notification of the allegation of an infraction.

# **Appeal Procedures by the Division:**

**Hearing Committee**: A committee of 3 DNS faculty members will be appointed by the Director to serve as the hearing committee (the committee) for such cases. If the director has imposed the penalty, the chair of the annual reviews committee will make the appointment.

# **Preliminary Procedures:**

- **a.** The instructor will provide the committee chair with a copy of all the information provided to the student concerning this infraction and the penalty imposed.
- b. The student will be requested to provide the chair with a written statement explaining the basis for the student's claim that the allegation was incorrect or the penalty unfair.

  Alternatively, the student may provide an oral statement to the chair. The student should be aware that an oral statement may not be considered as effective as a written submission.
- c. The committee will review these statements to see if a hearing is justified. If it is not felt that a hearing is justified, the penalty is upheld. The chair will inform both the student and the Division Director of this decision. The Division Director will then inform the appropriate offices. If the committee determines that a hearing is justified, the chair will request the instructor to respond in writing to the student's statement.

**The Hearing**: In general, the hearing will follow the guidelines used for appeals heard at the college level in cases where the penalty recommended is a failing grade for the course (see <u>Student Code</u>).

- a. The chair will schedule a hearing for the appeal and provide adequate notice to the student. Both the student and the instructor may be present throughout this session and may present any relevant evidence including testimony by other persons. This session will not be open to the public. Witnesses other than the student and the instructor may be excluded from the hearing during testimony of other witnesses.
- b. The hearing is intended to be fact-finding, not adversarial. Formal rules of evidence shall not be applicable, but the hearing must be conducted so as to satisfy the requirements of due process.
- c. After the session concludes, the committee will deliberate privately.

- d. If a majority upholds the instructor's decision, the penalty will stand, and the student and the Division Director will be informed of the decision.
- e. If a majority of the committee disagrees with the instructor's decision and recommends a milder penalty, they will inform the Division Director of this recommendation. (The committee may not recommend a harsher penalty). The Division Director will inform the instructor of this decision.
  - i. If the instructor agrees, the reduced penalty will be imposed.
  - ii. If the instructor disagrees, the Division Director and the instructor will try to reconcile this difference. If no agreement can be reached, the student will be permitted to withdraw from the course, but the record of the infraction will be forwarded as noted in the Student Code.
- f. If a majority of the committee disagrees with the instructor's decision and concludes that the student is not guilty, they will inform the Division Director of this recommendation. The Division Director will then permit the student to:
  - i. Be reinstated in the course and be given whatever grade the student is entitled to without regard to the charge of an infraction of academic integrity;
  - ii. Withdraw from the course; or
  - iii. Change sections in the course, if possible.
- g. If the penalty imposed by the instructor is upheld or a different penalty imposed, the Division Director will then forward a record of the penalty imposed to the administrative unit responsible for the student as instructed in the Student Code.

# O. Ownership of Student Research

<u>Publications</u>: A major part of graduate education is gaining research experience. Publications are the main avenue of sharing research with others in the field. Such publications not only serve the research community, but advance professional experience and credentials, as well as the reputation of the institution at which the research was conducted. Publication experience is generally an important consideration for potential employers of M.S. and Ph.D. students. Faculty supervisors and advisers can help the student become familiar with publication opportunities and requirements.

<u>Intellectual Property Policies</u>: Intellectual property is a type of personal property derived from the work of the mind. University of Illinois intellectual property embodies discoveries and inventions arising from the creative activity of university employees or non-employees using University facilities and funds. Nearly every original scholarly or scientific activity creates new intellectual property: new crop varieties or germplasm; computer software; equipment or apparatus for the field or laboratory; DNA constructs; tissues, cells, or DNA of experimental lines of cells or animals; novel methods or procedures; artwork; music; poetry; and publications, just to name a few.

Background reading on intellectual property policies is highly recommended to all graduate students and faculty advisers. More information on university intellectual property policies can be found at the Office of Technology Management (OTM).

According to the General Rules of the University, the University owns discoveries and inventions made by its employees, graduate students, or by users of its facilities, equipment, and funds, and has the right to protect valuable intellectual property embodied in discoveries and inventions with utility patents, licenses, contracts, plant patents, trademarks, plant variety protection certificates or copyrights. The University has clear and generous policies on sharing revenue obtained from protection of its intellectual property with its personnel.

Another University policy states that University personnel, including graduate students, do not have the authority to release the University's intellectual property to other individuals or organizations. The Board of Trustees of the University, through the Office of the Vice Chancellor for research, is the only entity that has legal authority over intellectual property.

Graduate students should notify their faculty adviser if they receive requests for samples of animals, tissues, cell lines, DNA constructs, probes, expression cassettes, tissue cultures, novel physical, chemical or biological agents, or for loan of specialized equipment or apparatus, from a person at another University, agency, or private industry. It often is appropriate to honor these requests if the University is able to protect its intellectual property from unauthorized use, by executing a Materials Transfer Agreement before exchanging materials. Contact your faculty adviser for additional information.

When leaving the University, graduate students may not remove physical, chemical, biological, or any other materials without a properly executed Materials Transfer.

<u>Data, Laboratory and Field Notebooks, and Other Records of Research</u>: The University of Illinois owns the results of research or development carried out by students, faculty, employees or other users of its facilities if funded by the University or supported by funds controlled by the University. Since the results of research may lead to patents, licenses or other forms of intellectual property protection, graduate students are requested to adopt standardized procedures for recording data, observations, and interpretation. Please consult your faculty adviser for information on the preferred procedures for recording data and interpretations.

All original copies of your research data, laboratory and field notebooks, and other records of research are the property of the University and must be delivered to your faculty adviser before you graduate and leave the campus. To facilitate completion of unfinished manuscripts after graduation, graduate students are encouraged to make photocopies of any data or records needed for the publication process. Graduate students are encouraged to prepare advanced drafts of manuscripts arising from their theses before departing from the University.

## P. Conflicts of Interest

The University's Policy on Conflicts of Commitment and Interest applies primarily to faculty and full-time staff. However, it does safeguard the interests of students who may be involved

with the outside private business of an academic staff member. In these situations, a management program should be in place that includes an impartial party to whom such a student can report any problems. If a student finds him- or herself in a conflicted situation, as where academic performance is being deleteriously affected or judged by activities in the outside business, he/she should report it to the impartial party, or failing that, to the Director of the Division.

# Q. Graduate College Grievance Policy

All members of the University community are expected to uphold high standards of professional conduct and ethical behavior in graduate education and in the supervision of graduate research and teaching. In a large and heterogeneous scholarly community, however, problems may arise. Thus, the University articulates its policies and provides effective informal and formal procedures for resolving these problems involving graduate students.

The Graduate College has a grievance policy and procedure in place to assist students and graduate programs. However, the Division strongly recommends that students first explore the option of informally resolving an academic conflict. A student who believes he or she has an academic grievance should first discuss the matter with his or her adviser. If discussion with the adviser is inappropriate or unfruitful, discussion with a senior faculty member, the Division Senior Associate Director or the Division Director is recommended. Details of the Graduate College policy are available in the Graduate College Handbook.

#### R. Academic Leaves of Absence

The Graduate College has a formal leave of absence policy in place for graduate students. Students are strongly encouraged to talk with their adviser, the Division Director, or the Senior Associate Director to discuss plans for their proposed Academic Leave of Absence.

Detailed information and instructions are available in the <u>Graduate College Handbook</u>. Students who are not enrolled for one or more terms and do not request an Academic Leave of Absence will be considered Absent Without Leave. These students will have an advising hold placed on their account by DNS. A student who is Absent Without Leave may be prevented from re-enrolling, may have additional degree requirements to complete if allowed to return, or may be subject to new degree requirements.

#### S. NSGSA and Professional Societies

Nutritional Sciences Graduate Student Association: All graduate students in the Division of Nutritional Sciences are automatically members of the Nutritional Sciences Graduate Student Association (NSGSA). The purpose of this organization is to provide a means of communication among all graduate students in the Division. Students are encouraged to be active members of NSGSA. Many professional and social activities are sponsored by the NSGSA including the annual Nutrition Symposium and an annual Faculty Award. Students may also voice concerns or opinions

on Division policy and activities to the officers of NSGSA or the student representative to the Division's Executive Committee.

<u>Professional Societies</u>: Graduate students in Nutritional Sciences are eligible to serve as elected representatives on University, College, and departmental committees, as well as in the Campus Senate. Graduate students are strongly encouraged to participate in their respective professional organizations, such as:

- American Society for Nutrition (ASN)
- Institute of Food Technologists (IFT)
- American Society of Animal Science (ASAS)
- American Dairy Science Association (ADSA)
- American Oil Chemists' Society (AOCS)

Most organizations offer reduced student membership rates. Further information may be obtained from your adviser, the Division office, or the respective society web pages.

# T. Financial Support

Financial support is available to graduate students in the form of fellowships, teaching and research assistantships, federal work-study programs and loans. The Graduate College administers most fellowships and waiver awards, and financial need is generally not a factor in awarding fellowships or assistantships. Students receiving scholarships, fellowships, or teaching or research assistantships will also receive a "tuition waiver." Students remain responsible for University fees, which are listed on the <a href="Registrar's website">Registrar's website</a>. To hold a waiver, a student must register each semester during the academic year.

Students who, after consultation with their adviser and the Division Director, elect to transfer to the non-thesis M.S. program may not hold fellowships or assistantships funded by the Division of Nutritional Sciences and are not eligible to apply for Margin of Excellence funding.

# Fellowships:

<u>University and College Fellowships</u>: DNS Students in all fields of thesis-based graduate study are eligible to compete for University and College Fellowships, which are awarded on the basis of academic and scholarly achievement. A student need not be a U.S. citizen to apply. The Division (with Graduate College approval) may combine fellowship stipends with teaching or research assistantship appointments. Students should consult the Division office regarding support options.

<u>Illinois Distinguished Fellowships</u>: These fellowships are intended to help the University of Illinois recruit exceptional applicants into its doctoral programs. Only students of the highest caliber who represent extraordinary recruitment opportunities will receive these fellowships.

<u>Dissertation Completion Fellowship</u>: These fellowships are awarded annually by the <u>Graduate College</u>. The intent is to free fellows from assistantships and other such obligations, allowing them to devote full time to the completion of the dissertation. No concurrent appointment or employment of any kind is permitted with the Dissertation Completion Fellowship. Deadlines for receipt of applications vary; therefore, consult the above website for more information.

Industrial, Endowed and Special Fellowships and Traineeships: A number of companies, foundations, and individuals support fellowship awards for graduate students. The stipends and supplemental allowances for these fellowships vary, and most are restricted to students in particular areas of study. In almost all cases, these awards cover tuition and some fees. Further information may be obtained from the Graduate College Fellowship Office.

<u>Federal Fellowships</u>: Federal fellowships have been curtailed sharply in recent years, but certain programs, principally in science and education, have been maintained. For example, USDA, NIH, and NSF offer predoctoral fellowships. Applicants for most federal fellowships must be U.S. citizens or permanent resident aliens.

<u>Fellowships Awarded in National Competition</u>: Various kinds of fellowships are granted in rigorous national competitions, and in most cases, these may be used at the college or university chosen by the recipient. Applications for most of these awards are obtained from and submitted directly to the granting agencies. National Science Foundation Fellowships are awarded annually to exceptional students in science and engineering, the social sciences, and in history and philosophy of science. Information on these fellowships can be obtained from the Graduate College Fellowship Office.

<u>Graduate Research and Teaching Assistantships</u>: The Division of Nutritional Sciences generally does not have funds available for graduate assistantships; however, students may receive TA or RA funds through other departments. The fractional time of employment is indicated on the appointment. The expectation is that an assistant will spend the fraction of appointment of each 40-hour workweek on the duties of his or her assistantship.

The adviser (or other appointing department in the case of a TA) determines the duties of the appointment. Students who resign their appointments before working for at least three-fourths of the term (91 days during the regular semester, 41 days during the summer session) will be assessed tuition and fees. A term is defined as running from the first day of registration through the last day of final examinations.

Taxes for Fellowships and Assistantships: The University may not withhold income taxes on fellowship stipends unless the University Payroll Office is explicitly requested to do so. Also, it may not report fellowship stipends as income to the Internal Revenue Service (IRS) or State of Illinois Department of Revenue (IDR). It is the fellow's responsibility to declare the fellowship stipend as taxable income on the appropriate income tax returns, and to make arrangements for paying any taxes due on this income.

The University withholds taxes on assistantship salaries and reports the taxable income (and the tax withheld) to the IRS and the IDR.

More information is available on <u>taxation of tuition and fee waivers</u> through the Graduate College.

Student assistants on non-immigrant visas are taxed as non-residents (and, thus, somewhat differently from U.S. residents). The U.S. also has tax treaties with many countries, and these treaties affect the tax liabilities of fellows or assistants who are citizens of these countries. In such cases, the assistant may arrange with the Payroll Office for increased (or reduced) withholding that will more closely approximate the estimated tax liability.

<u>Loans and Federal Work-Study</u>: Students may request information about state and federal loans and Federal Work-Study from the Office of Student Financial Aid.

**Student Employment**: Part-time jobs are sometimes available for graduate students through the Office of Student Financial Aid.

<u>Direct Deposit of Pay</u>: Students will receive their pay by direct deposit on the 16th of each month.

**Financial Assistance for Travel to Scientific Meetings**: Such travel is a privilege and is considered as a reward for meritorious service. Its purpose is to further the education of graduate students. The number of trips, if any and the amount of support for each trip will be at the discretion of the adviser and home department and will depend on the availability of funds.

In the case of limited travel to specific seminars or research conferences in the field of the student's specialization, permission will depend on their ability to contribute to the meeting as decided by the thesis adviser and subject to availability of funds. Travel grants also are available through the Graduate College. Information and forms are available on the Graduate College Travel Award page. Nominations for these travel funds are submitted to the Graduate College by the Division, not directly by the student.

# **U. Margin of Excellence Program**

Funds to support travel and research are available from the Division, on a competitive basis. These funds are made available by contributions to the Division from the Colleges of Agricultural, Consumer and Environmental Sciences (ACES) and Veterinary Medicine, and from DNS alumni and friends.

<u>Travel funds</u>: Travel funds are available for thesis-based students attending international and national professional meetings. Priority is given to those presenting research papers and students who submit abstracts for graduate student competitions will receive an additional \$100 in travel funds. Requests for applications are sent to students in the fall semester. Students will receive funding only once within one academic year (August-July). Prior to travel, students should submit an application for Margin of Excellence Travel funding to the Division office.

**Research Funds**: Short research proposals are solicited from thesis-based students who wish to apply for research support (up to \$3,000). Applications are distributed by the Division during the fall semester and are due in January. A faculty review committee, appointed by the Division Director, evaluates the applications. Research funds are awarded based on the quality and merit of the proposal.

#### V. General Information

<u>Division Staff</u>: Most student questions and problems regarding staff services and supplies should be directed to the student's adviser. The Senior Associate Director is available to

answer questions pertinent to your degree program (<u>nutritionalsciences@illinois.edu</u>; 217-333-4177).

<u>Division Facilities</u>: The facilities of the home department in which the adviser and student are located are those to be utilized by the student. The Division has no facilities other than the Division Office that is located in room 240 ERML, MC 051 and the Division conference room (240B ERML). The conference room can be reserved in the Division office.

<u>Division Newsletter</u>: The Division publishes a newsletter with items of interest from current students, alumni, faculty, and staff. The Division office sends periodic requests for newsletter updates to collect information prior to publication of the newsletter.

<u>Campus Parking</u>: <u>Campus Parking</u> requires you to register your car if you are renting a parking space. Bicycles also must be registered. The Campus Parking Office is located at 1201 W. University Ave, M/C 241 Urbana, IL.

<u>Computer Facilities and E-mail</u>: Students, staff and faculty are offered a number of computing accounts to access a wide variety of services. More detailed information on student email, file storage, and other resources can also be found on the <u>Tech Services</u> website.

**Mail**: You will be assigned a mailbox or designated drawer in your respective building. All U.S. mail as well as university and departmental notices will be delivered to this site.

<u>Word-processing Services</u>: The Division does not provide a word-processing service for graduate students. Exceptions are some correspondences concerning research or letters regarding graduate standing required for fellowships, visa, etc. No thesis typing is done by the Division.

<u>Copying Service</u>: Each department and building has its own policy regarding the use of copy machines. In general, a student must have authorization from the adviser or course instructor before using duplication equipment. The Division copy machine is not available for general student use.

<u>Building Keys</u>: Keys for your respective buildings may be obtained from the departmental personnel responsible for key disbursement or directly from your adviser. Keys must be returned before leaving campus.

<u>Study Areas and Office Space</u>: The home department's policy in providing desk space in laboratories for graduate students shall be followed. Reading rooms are often available in each building for use by any graduate student.

Building and Office Security: In recent years, it has become more difficult to protect and secure valuables in and around campus buildings. You are requested to be alert to possible security problems and to either correct the problem or report it to your building coordinator as soon as possible. Positive steps you can take include making sure that all doors and windows are locked when you leave your office and building and locking purses or other personal items of value in desks while at work. Please help us prevent the loss of expensive equipment or irreplaceable personal or professional items.

### Appendix I

### **Description of Nutritional Sciences (NUTR) Courses**

- NEUROSCIENCE OF EATING & DRINKING. Same as FSHN 417 and NEUR 417. Eating and drinking are critical to survival. Despite complex and redundant mechanisms, aberrant ingestive behaviors occur and can result in extreme body weights. This course is designed to critically probe and review the current understanding of neural and behavioral mechanisms of eating and drinking. Students will learn how eating and drinking are closely related to physical and mental health, and how to apply this knowledge to live a healthier life. Prerequisite: PSYC 100 or equivalent. 3 or 4 hours.
- <u>NUTRITIONAL ASPECTS OF DISEASE</u>. Same as FSHN 420. Examines nutritional, biochemical, and physiological aspects of disease processes and studies the role of nutrition in prevention, management, and treatment of disease. <u>Prerequisite</u>: FSHN 220 or comparable course with a physiology prerequisite; MCB 450 or equivalent. **3 hours.**
- 422 <u>COMPANION ANIMAL NUTRITION</u>. Same as ANSC 422. Digestive physiology and basic nutritional considerations of companion animals, with primary focus on dogs and cats. Topics discussed include nutritional idiosyncrasies of dogs and cats, the importance of nutrition in various physiological states, and nutrient needs during disease. Information on pet food regulations, common ingredients and formulation, manufacturing methods, and trends in the pet food industry will also be covered. <u>Prerequisite</u>: ANSC 223 or equivalent. **3 hours.**
- PET FOOD & FEED MANUFACTURING. Same as ANSC 424. Integrates principles of animal nutrition with various aspects pertaining to pet food and animal feed manufacturing. Topics discussed in this course include processing technologies (e.g., extrusion, retorting, baking) involved in the manufacturing of pet foods and animal feeds, principles of diet formulation and nutritional guidelines, and an overview of regulatory affairs, quality control, and good manufacturing practices. This course includes two field trips to a pet food manufacturing facility and a food and feed ingredient company. Prerequisite: Required ANSC 223; Recommended ANSC 322 and ANSC 422. **3 hours**
- BIOCHEMICAL NUTRITION I. Same as FSHN 426. The dietary and hormonal regulation of carbohydrate, lipid, and amino acid metabolism. Emphasizes the regulation of enzyme activity and the different roles the major organs have in whole animal energy balance. Prerequisite: FSHN 220, or FSHN 120 and FSHN 414, and MCB 450 or concurrent enrollment. **3 hours.**
- 427 <u>BIOCHEMICAL NUTRITION II.</u> Same as FSHN 427. Biochemistry and metabolism of the water and fat soluble vitamins, and the biochemical role of minerals in animal biology. Emphasizes the digestion, transport, metabolism and intercellular function of these nutrients

and how nutrient/food intake and physiological state affect these processes. <u>Prerequisite:</u> FSHN 426. **3 hours.** 

- 428 <u>COMMUNITY NUTRITION.</u> Same as FSHN 428. Application and integration of the principles of nutrition and their delivery in the context of social, political, and economic environments in local, national, and international settings. Offered in alternate fall semesters (even years). <u>Prerequisite:</u> FSHN 220 or equivalent, one introductory statistics course, and one course in the social or behavioral sciences. **3 hours.**
- APPLIED STATISTICAL METHODS I. Same as ANSC 440, CPSC 440, FSHN 440, and NRES 440. Statistical methods involving relationships between populations and samples; collection, organization, and analysis of data; and techniques in testing hypotheses with an introduction to regression, correlation, and analysis of variance limited to the completely randomized design and the randomized complete-block design. Prerequisite: MATH 112 or equivalent. 4 hours.
- 500 <u>NUTRITIONAL SCIENCES SEMINAR</u>. Discussions of current problems in nutritional sciences. Required of all graduate students in the Nutritional Sciences program. **0 or 1 hour.**
- TOPICS IN NUTRITION RESEARCH. Same as ANSC 525 and FSHN 510. Series of one-third term intensive courses on current topics in nutritional sciences research. Topics covered include nutrition regulation, dietary fiber, nutrition and cancer, design of nutrition experiments, nutritional toxicology, nutrition, and gene expression. Prerequisite: Advanced Biochemistry. 1 hour. May be repeated in the same term to a maximum of 3 hours. For M.S. students a minimum of 3 hours is required, and a maximum of 5 hours is allowed. For Ph.D. students a minimum of 5 hours is required, and a maximum of 9 hours are allowed.
- 511 <u>REGULATION OF METABOLISM.</u> Same as ANSC 521 and FSHN 511, and HK 510. Biochemical and molecular regulatory mechanisms of macronutrient metabolism under various physiological conditions in mammalian species, including humans. <u>Prerequisite:</u> MCB 240 (or equivalent), MCB 450 and an upper division course in nutrition. Second year graduate standing or above, or consent of instructor. **4 hours**.
- PROTEIN AND ENERGY NUTRITION. Same as ANSC 520. Discusses and applies methods of laboratory analysis and animal experimentation frequently used in nutrition research. Prerequisite: Courses in nutrition, physiology, and biochemistry and consent of instructor. **3 hours.**

- MOLECULAR BASIS OF METABOLIC SYNDROME AND WEIGHT MANAGEMENT. Same as FSHN 521. The objective of the course is to help nutritionists and dietitians build a strong biochemical, physiological, clinical and epidemiological foundation in the areas of: metabolic adaptation to positive and negative energy balance; underlying mechanism in progression and regression of metabolic syndrome; prevention of overeating; and principles and design of a dietary weight loss/maintenance program. <a href="Perequisite: Credit or concurrent enrollment">Perequisite: Credit or concurrent enrollment in MCB 450</a> or any introductory biochemistry course; and MCB 244 or MCB 246 or any introductory physiology course; and FSHN 420; or consent of instructor. **3 hours**.
- DISEASES. Same as FSHN 522. The objective of the course is to help nutritionists and dietitians build a strong biochemical, physiological, clinical and epidemiological foundation for dietary prevention of noncommunicable diseases including coronary artery disease, stroke, hypertension, osteoporosis, cancer and chronic inflammation. In particular, we will focus on evaluating the strength of evidence of the following nutrients on prevention of chronic diseases: cholesterol, saturated fatty acids, essential fatty acids, sodium, potassium, vitamin D and calcium. Prerequisite: Credit or concurrent enrollment in MCB 450 or any introductory biochemistry course; and MCB 244 or MCB 246 or any introductory physiology course; and FSHN 420; or consent of instructor. **3 hours**.
- TECHNIQUES IN ANIMAL NUTRITION. Same as ANSC 523. Discusses and applies methods of laboratory analysis and animal experimentation frequently used in nutrition research. Prerequisite: Courses in nutrition, physiology, and biochemistry and consent of instructor **3 hours**.
- NONRUMINANT NUTRITION CONCEPTS. Same as ANSC 524. Review of literature in nonruminant nutrition. Emphasizes basic concepts associated with food intake, carbohydrate and fat utilization, protein quality, bioavailability of nutrients, and diet formulation. Prerequisite: Consent of instructor. **2 hours.**
- ADVANCED COMPANION ANIMAL NUTRITION. Same as ANSC 526. Students will learn how to effectively apply advanced concepts related to pet nutrition and disease, including the metabolism within healthy and diseased dogs and cats, how nutrition may aid in preventing and treating disease, and the science behind pet food formulation and production. Students will develop critical-thinking and problem-solving skills by writing and reviewing grant proposals and delivering an oral presentation. <a href="Perequisite">Perequisite</a>: ANSC 422 or consent of instructor. 3 hours.
- 527 <u>ADVANCED VITAMINS AND MINERALS: REGULATIONS OF METABOLISM.</u>
  Combined lectures and in-class case studies of vitamins and minerals as the regulators of nutrition, metabolism, and overall human health. Lectures include genetic, biochemical

background information and basic epigenetic mechanisms. In-class case studies will involve body physiology, human development, and specific diseases. Same as FSHN 527 Prerequisite: One biochemical course, such as FSHN 426, FSHN 427, MCB 450, or equivalent. **3 hours.** 

- GRANTSMANSHIP AND ETHICS. Design and implementation of experimental protocols in nutrition. Examines the scientific, regulatory, and ethical context for conducting research in nutrition. The focus of the course will be the writing and evaluation of a simulated peer-reviewed grant proposal. <a href="Perequisite: Advanced nutritional biochemistry">Perequisite: Advanced nutritional biochemistry and statistics.</a> **3 hours.**
- ADVANCED CLINICAL NUTRITION. Same as FSHN 520. Basic pathophysiological changes associated with major organ system failure and appropriate nutritional support and treatment. Provides medical orientation needed for participating in medical nutritional rounds. Covers topics such as cardiovascular disease, cancer, gastrointestinal diseases, diabetes, immunological diseases, and nutritional care in obstetrics. Prerequisite: Upper division course in physiology and a course in clinical nutrition. 2 hours. May be repeated in the same term to a maximum of 4 hours. For M.S. students a maximum of 5 hours can be counted towards the degree requirements. For Ph.D. students a maximum of 9 hours can be counted towards the degree requirements.
- Ethics in Research, IRB and IACUC. Same as FSHN 580. The goals of this course are twofold. First, to provide graduate students with an introduction to knowledge and skills that will facilitate ethical behavior in research. Second, to increase their sensitivity to ethical issues. We will review rules, issues, options and resources to meet regulatory and institutional expectations (including Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC). We will foster their ethical decision-making skills by discussing and analyzing real (or realistic) ethical cases. We will identify failures, justify decisions, and generate potential solutions to those errors. **3 hours.**
- US FOOD REGULATIONS. Throughout the semester, students will learn the principles of US food regulations and how these regulations influence the US food industry. The course will explore the main US food regulations, enforcement actions, trade associations, and the Codex Alimentarius. Students will apply their learning by completing individual assignments and participating in optional group exercises and will integrate and apply graduate level knowledge of food regulations by working throughout the semester on a capstone project. Credit is not given toward graduation for NUTR 581 and Intro to Food Regulations (NUTR 510, section B; or ANSC 525 section B; or FSHN 510 section B). Prerequisite: Restricted to graduate students. 4 hours.

- PERSONALIZED NUTRITION. A "one size fits all" approach to nutrition may not work for everyone. We each have unique variations in our genome, epigenome and microbiome, which interact with our external environment to affect how our bodies respond to dietary intake. Students will learn how our unique biological make-up can be a way to establish more personalized approaches to diet, new approaches to analyzing personalized nutrition data, and what direct-to-consumer personalize nutrition products and services are available. Prerequisite: Restricted to graduate students. 4 hours.
- NUTRITION POLICY. Throughout the semester students will learn about the policy making process and the evidence-base at the interface of nutrition policy. Students will explore complex questions about how government has responded to diet-related health problems and will examine the role for government in efforts to facilitate healthy eating. In addition, information on how to develop and evaluate policy approaches to improve diet quality and reduce the burden of diet-related disease among all people will be presented. Credit is not given toward graduation for NUTR 583 and NUTR 510 Nutrition Policy (NUTR 510, section A; or ANSC 525, section A; or FSHN 510, section A). Prerequisite: Restricted to graduate students. 4 hours.
- 590 <u>DISCIPLINARY SEMINAR.</u> Discussions of current research and literature pertaining to disciplinary specializations within the Division of Nutritional Sciences. **0 or 1 hour.** *May be repeated to a maximum of 2 hours for M.S. students and 4 hours for Ph.D. students.*
- ANIMAL SCIENCES SEMINAR. Same as ANSC 590. Discussions of current research and literature. Registration for **0 to 2 hours** each term is expected for animal sciences graduate students. 0 to 2 graduate hours. No professional credit. Approved for Letter and S/U grading. May be repeated to a maximum of 2 hours for Master's Students and 4 hours for PhD students. Students enrolled for 0 credit will receive S/U grades; those enrolled for 1 hour will receive letter grades.
- 593 <u>INDIVIDUAL TOPICS IN NUTRITION</u>. For students majoring in nutritional sciences who wish to undertake individual studies of a non-thesis nature in problems or topics not covered in other courses; may be taken under the direction of any member of the nutritional sciences faculty, with the exception of the student's own thesis adviser. <u>Prerequisite:</u> Consent of instructor. **1 to 4 hours.**
- 599 <u>THESIS RESEARCH</u>. Approved for S/U grading only. May be repeated in the same term or in separate terms. **0 to 12 hours**

### Appendix II

### Required and Recommended Coursework for the M.S. Degree

| Course Title   | Hours  |
|--|--------|
| Research (NUTR 599)  | 8      |
| Coursework   | 24     |
| Required Courses:  |        |
| FSHN 593 Seminar in Nutrition, NUTR 590 Disciplinary Seminar or NUTR 591 Animal Sciences Seminar | 2      |
| NUTR 500 Nutritional Sciences Seminar <sup>1</sup>   | 0      |
| NUTR 510 Topics in Nutrition Research or NUTR 561 Advanced Clinical Nutrition <sup>2</sup>       | 3 – 5  |
| Statistics   | 3 – 4  |
| One general nutrition course <sup>3</sup>  | 3 – 4  |
| Biochemistry <sup>4</sup>  | 3 – 8  |
| Electives or Recommended courses   | 1 – 10 |
| Recommended Courses:   |        |
| FSHN 595 Food Science Advanced Topics (if non-nutrition background)                              | 3      |
| NUTR 511 Regulation of Metabolism  | 4      |
| NUTR 593 Individual Topics in Nutrition  | Max 2  |
| Molecular and Integrative Physiology or Cell and Structural Biology courses                      |        |

- 1 Students must enroll in NUTR 500 each semester for 0 hours.
- 2 M.S. students are required to take a minimum of 3 hours and maximum of 5 hours of **NUTR 510** or **NUTR 561** towards the degree requirement.
- 3 See **Appendix III** for approved general nutrition courses for M.S. students.
- Biochemistry requirement can be waived if taken within 2 years of entering Nutritional Sciences Graduate Program.
- At least 12 of the required 24 coursework hours must be in 500-level courses; 8 of these 12 hours must be from the DNS program (including cross-listed courses).
- Students enrolled in the Graduate Dietetic Internship may count 5 hours of their 500-level internship credit towards the required minimum 8 hours of NUTR 500-level coursework.

Appendix III

List of Approved Elective Courses in General Nutrition for M.S. Students

| <u>Course</u> | Credit (hours) | <u>Title</u>  |
|---------------|----------------|---|
| NUTR 417      | 3 - 4          | Neuroscience of Eating & Drinking                               |
| NUTR 420      | 3              | Nutritional Aspects of Disease                                  |
| NUTR 422      | 3              | Companion Animal Nutrition                                      |
| NUTR 426      | 3              | Biochemical Nutrition I   |
| NUTR 427      | 3              | Biochemical Nutrition II  |
| NUTR 428      | 3              | Community Nutrition   |
| NUTR 511      | 4              | Regulation of Metabolism  |
| NUTR 520      | 3              | Protein and Energy Nutrition                                    |
| NUTR 521      | 3              | Molecular Basis of Metabolic Syndrome & Weight Management       |
| NUTR 522      | 3              | Dietary Prevention of Cardiovascular and Other Chronic Diseases |
| NUTR 523      | 3              | Techniques in Animal Nutrition                                  |
| NUTR 524      | 2              | Nonruminant Nutrition Concepts                                  |
| NUTR 526      | 3              | Adv. Companion Animal Nutrition                                 |
| NUTR 527      | 3              | Advanced Vitamins & Minerals: Regulations of Metabolism         |
| NUTR 550      | 3              | Grantsmanship and Ethics  |
| ANSC 420      | 3              | Ruminant Nutrition  |
| ANSC 421      | 3              | Minerals and Vitamins   |
| ANSC 451      | 3              | Microbes and the Anim Industry                                  |
| ANSC 522      | 3              | Advanced Ruminant Nutrition                                     |
| FSHN 421      | 3              | Pediatric Clinical Nutrition                                    |
| FSHN 429      | 3              | Nutrition Assessment & Therapy                                  |
| FSHN 518      | 3              | Chemistry of Lipids in Foods                                    |
| FSHN 590      | 5              | Dietetic Internship I   |

### **Appendix IV**

# Required and Recommended Coursework for the Ph.D. Degree from the B.S. Degree

| Course Title   | Hours  |
|--|--------|
| Research (NUTR 599)  | 56     |
| Coursework   | 40     |
| Required Courses:  |        |
| FSHN 593 Seminar in Nutrition and/or NUTR 590 Disciplinary Seminar <sup>1</sup> and/or | 2 – 4  |
| NUTR 591 Animal Sciences Seminar   |        |
| NUTR 500 Nutritional Sciences Seminar <sup>2</sup>                                     | 1      |
| NUTR 510 Topics in Nutrition Research or   | 5 – 9  |
| NUTR 561 Advanced Clinical Nutrition <sup>3</sup>                                      |        |
| NUTR 511 Regulation of Metabolism  | 4      |
| Three general nutrition courses <sup>4</sup>   | 9 – 12 |
| Biochemistry <sup>5</sup>  | 3 – 8  |
| Statistics   | 3 – 4  |
|  |        |
| Electives or Recommended courses   | 0 – 13 |
|  |        |
| Recommended Courses:   |        |
| FSHN 595 Food Science Advanced Topics (if non-nutrition background)                    | 3      |
| NUTR 550 Grantsmanship and Ethics  | 3      |
| NUTR 593 Individual Topics in Nutrition  | Max 2  |
| Additional statistics  | 3 – 4  |
| Molecular and Integrative Physiology or Cell and Structural Biology courses            |        |

- 1 Ph.D. students are required to take a minimum of 2 hours and maximum of 4 hours of FSHN 593 and/or NUTR 590/591 towards the degree requirement.
- 2 Students must enroll in NUTR 500 each semester for 0 hours.
- Ph.D. students are required to take a minimum of 5 hours and maximum of 9 hours of **NUTR 510** or **NUTR 561** towards the degree requirement.
- 4 See **Appendix VI** for approved general nutrition courses.
- Biochemistry requirement can be waived if taken within 2 years of entering Nutritional Sciences Graduate Program.
- At least 12 of the required 40 coursework hours must be in 500-level courses; 8 of these 12 hours must be from the DNS program (including cross-listed courses).

# Appendix V

# Required and Recommended Coursework for the Ph.D. Degree from the M.S. Degree

(Assumes biochemistry was taken within 2 years of entering the Ph.D. program)

### From an M.S. from the Division of Nutritional Sciences at the University of Illinois

| Course Title   | Hours |
|--|-------|
| Research (NUTR 599)  | 48    |
| Coursework   | 16    |
| Required Courses:  |       |
| NUTR 590 Disciplinary Seminar <sup>1</sup> or NUTR 591 Animal Sciences Seminar | 2 -4  |
| NUTR 500 Nutritional Sciences Seminar <sup>2</sup>                             | 1     |
| NUTR 510 Topics in Nutrition Research or NUTR                                  | 2 – 6 |
| 561 Advanced Clinical Nutrition <sup>3</sup>                                   |       |
| NUTR 511 Regulation of Metabolism <sup>4</sup>                                 | 4     |
| Two general nutrition courses <sup>5</sup>                                     | 6 – 8 |
|  |       |
| Electives or Recommended courses   | 0 - 3 |
|  |       |
| Recommended Courses:   |       |
| NUTR 550 Grantsmanship and Ethics  | 3     |
| NUTR 593 Individual Topics in Nutrition  | Max 2 |
| Additional statistics  | 3 – 4 |
| Molecular and Integrative Physiology or Cell and Structural Biology courses    |       |

## From an M.S. not from the Division of Nutritional Sciences at the University of Illinois

| Course Title   | Hours |
|--|-------|
| Research (NUTR 599)  | 40    |
| Coursework   | 24    |
| Required Courses:  |       |
| FSHN 593 Seminar in Nutrition and/or NUTR 590 Disciplinary Seminar <sup>1</sup> or | 2 – 4 |
| NUTR 591 Animal Sciences Seminar   |       |
| NUTR 500 Nutritional Sciences Seminar <sup>2</sup>                                 | 1     |
| NUTR 510 Topics in Nutrition Research or NUTR 561 Advanced Clinical                | 5 – 9 |
| Nutrition <sup>6</sup>   |       |
| NUTR 511 Regulation of Metabolism <sup>4</sup>                                     | 4     |
| Two general nutrition courses <sup>5</sup>   | 6 – 8 |
|  |       |
| Electives or Recommended courses   | 4 – 6 |
|  |       |

| Recommended Courses:  |       |
|---|-------|
| FSHN 595 Food Science Advanced Topics (if non-nutrition background)         | 3     |
| NUTR 550 Grantsmanship and Ethics   | 3     |
| NUTR 593 Individual Topics in Nutrition                                     | Max 2 |
| Additional statistics   | 3 – 4 |
| Molecular and Integrative Physiology or Cell and Structural Biology courses |       |

- 1 Ph.D. students are required to take a minimum of 2 hours and maximum of 4 hours of FSHN 593 and/or NUTR 590/591 towards the degree requirement.
- 2 Students must enroll in NUTR 500 each semester for 0 hours, except semester in which they are presenting a seminar.
- Ph.D. students with an M.S. degree from DNS are required to take a minimum of 2 hours and maximum of 6 hours of **NUTR 510** or **NUTR 561** towards the degree requirement.
- 4 If not taken as an elective during the M.S. degree.
- 5 See **Appendix VI** for approved general nutrition courses for Ph.D. students.
- Ph.D. students with an M.S. degree not from DNS are required to take a minimum of 5 hours and maximum of 9 hours of **NUTR 510** or **NUTR 561** towards the degree requirement.

Appendix VI
List of Approved Elective Courses in General Nutrition for Ph.D. Students

| Course   | Credit (hours) | <u>Title</u>  |
|----------|----------------|---|
| NUTR 417 | 3 - 4          | Neuroscience of Eating & Drinking                               |
| NUTR 420 | 3              | Nutritional Aspects of Disease                                  |
| NUTR 422 | 3              | Companion Animal Nutrition                                      |
| NUTR 426 | 3              | Biochemical Nutrition I   |
| NUTR 427 | 3              | Biochemical Nutrition II  |
| NUTR 428 | 3              | Community Nutrition   |
| NUTR 511 | 4              | Regulation of Metabolism  |
| NUTR 520 | 3              | Protein and Energy Nutrition                                    |
| NUTR 521 | 3              | Molecular Basis of Metabolic Syndrome & Weight Management       |
| NUTR 522 | 3              | Dietary Prevention of Cardiovascular and Other Chronic Diseases |
| NUTR 523 | 3              | Techniques in Animal Nutrition                                  |
| NUTR 524 | 2              | Nonruminant Nutrition Concepts                                  |
| NUTR 526 | 3              | Adv. Companion Animal Nutrition                                 |
| NUTR 527 | 3              | Advanced Vitamins & Minerals: Regulations of Metabolism         |
| NUTR 550 | 3              | Grantsmanship and Ethics  |
| ANSC 420 | 3              | Ruminant Nutrition  |
| ANSC 421 | 3              | Minerals and Vitamins   |
| ANSC 451 | 3              | Microbes and the Anim Industry                                  |
| ANSC 522 | 3              | Advanced Ruminant Nutrition                                     |
| FSHN 421 | 3              | Pediatric Clinical Nutrition                                    |
| FSHN 429 | 3              | Nutrition Assessment & Therapy                                  |
| FSHN 518 | 3              | Chemistry of Lipids in Foods                                    |
| FSHN 590 | 5              | Dietetic Internship I   |

# Appendix VII

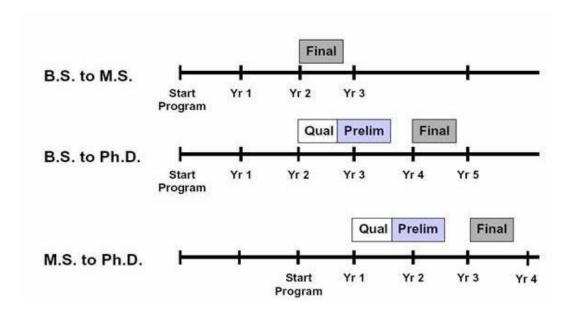
### Required and Recommended Coursework for the Joint Ph.D.-M.P.H. Degree

| Course Title  | Hours |
|---|-------|
| Research (NUTR 599)   | 40    |
| Coursework  | 60    |
| Required Courses:   |       |
| FSHN 593 Seminar in Nutrition and/or NUTR 590 Disciplinary Seminar <sup>1</sup> or NUTR 591 Animal Sciences Seminar | 2 - 4 |
| NUTR 500 Nutritional Sciences Seminar <sup>2</sup>  | 1     |
| NUTR 510 Topics in Nutrition Research or NUTR 561 Advanced Clinical Nutrition <sup>3</sup>                          | 5 - 9 |
| NUTR 511 Regulation of Metabolism   | 4     |
| Two general nutrition courses <sup>4</sup>  |       |
|   |       |
| CHLH 410, 469, 540, 550, 575  | 20    |
| CHLH 594 Cultural Competence and Health Promotion   | 4     |
| CHLH 594 Prin of Epidemiology in Pub Health   | 4     |
| CHLH 594 Biostatistics in Pub Health  | 4     |
| CHLH 594 MPH Practicum  | 4     |
| CHLH 589 Public Health Capstone Experience  | 2     |
| M.P.H. electives and seminars   | 3     |
| Electives or Recommended courses  | 0 - 7 |
| Recommended Courses:  |       |
| FSHN 595 Food Science Advanced Topics (if non-nutrition background)   | 3     |
| NUTR 550 Grantsmanship and Ethics   | 3     |
| NUTR 593 Individual Topics in Nutrition   | Max 2 |
| Additional statistics   | 3 - 4 |
| Molecular and Integrative Physiology or Cell and Structural Biology courses   |       |

- 1 Ph.D. students are required to take a minimum of 2 hours and maximum of 4 hours of FSHN 593 and/or NUTR 590 towards the degree requirement.
- 2 Students must enroll in NUTR 500 each semester for 0 hours and 1 hour when they present their exit seminar.
- Ph.D. students are required to take a minimum of 5 hours and maximum of 9 hours of **NUTR 510** or **NUTR 561** towards the degree requirement.
- 4 See **Appendix VI** for approved general nutrition courses.

# **Appendix VIII**

# **Recommended Timing of Examinations**



# Appendix IX

# M.S. Final Exam Form

| To: Director, Division of Nutritional | Sciences                           |
|---------------------------------------|------------------------------------|
|                                       | has or has not satisfactorily      |
| passed the examination for the M.     | S. degree in Nutritional Sciences. |
| Thesis                                |                                    |
| Non-thesis                            |                                    |
|                                       | Chairperson of Committee           |
|                                       | Member                             |
|                                       | Member                             |
|                                       |                                    |
|                                       | Director<br>Kelly Swanson, Ph.D.   |
|                                       |                                    |
| Date                                  |                                    |

### Appendix X

### **Guidelines for Ph.D. Research Proposal Format**

Title Page: Project Title

Name of Student

Name of Director of Thesis Research

#### Following the title page:

- 1. <u>Objectives:</u> Overall and specific objectives. Amplification of title. Short paragraphs.
- 2. <u>Literature Review:</u> Background to the problem. Include both an overview as well as specifics of the problem, e.g., if work is on nutritional effects of linoleic acid during lactation, include sections on linoleic chemistry, linoleic acid nutrition, lactation, etc.
- 3. <u>Scope of proposed research and statement of the problem:</u> What is the reason for the specific project being proposed? What questions do you hope to answer?
- 4. <u>Significance:</u> Explain the importance of this work to the area of specialization, nutritional sciences in general and to society. What is new and significant about the expected results?
- 5. <u>Plan of Work:</u> This section should closely relate to the specific objectives. It should be broken down into a series of phases and tasks that will show the practicability of the approach you have selected (experimental animals, tissues, or compounds to be used).
  - a. Describe experiments, independent variables, and responses to be measured.
  - b. Techniques and analytical methods to be used. Rationale behind the selection and possible limitations of the technique.
  - c. How will the data be analyzed statistically? Give statistical design or model.
- 6. <u>Progress Report/Work Done to Date</u>: This will cover any work done to date on the project.
- 7. <u>References:</u> List in style and format as required by the journal in which you hope to publish your results.