INTERDEPARTMENTAL GRADUATE PROGRAM IN NUTRITIONAL SCIENCES (IGPNS)

GRADUATE HANDBOOK FOR GRADUATE STUDENTS AND FACULTY

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INTRODUCTION

This document was originally developed for the Department of Food Science and Human Nutrition (FSHN) with the assistance of an ad hoc committee of graduate student volunteers and the graduate coordinator to assist graduate students and major professors. We have now used it as a template to develop a Graduate Handbook for the Interdepartmental Graduate Program in Nutritional Sciences (IGPNS). An important aspect of the information provided in this Handbook is that although most of the general requirements are applicable to all graduate students throughout the program, some specific components or avenues to meet a program requirement are dependent on the home department of the student.

Revised 2016: Advisory Committee, IGPNS (M. Rowling, Director of Graduate Education; D. Beitz; W. White; L. Lanningham-Foster, B. Emery).

Abbreviations used:

ANS, Department of Animal Science
ASN, American Society for Nutrition
CALS, College of Agricultural and Life Sciences
CCUR, Center for Crops Utilization Research
CHS, College of Human Sciences
DOGE, Director of Graduate Education
FSB, Food Sciences Building
FSHN, Department of Food Science and Human Nutrition
GPSS, Graduate and Professional Student Senate
HNSB, Human Nutritional Sciences Building
IGPNS, Interdepartmental Graduate Program in Nutritional Sciences
ISU, Iowa State University
POS, Program of Study
RA, Research Assistant
TA, Teaching Assistant
GETTING STARTED

Research Assistantship

A Graduate Assistantship Letter of Intent is written at the beginning of the appointment and describes the position offered, the stipend amount and the length of appointment. (You are usually appointed for 1 year or less with renewals based on funding availability). Payment will be directly deposited in your bank account. Payment is on the last working day of the month (unless the last day is a Saturday, Sunday or holiday.) Then, payment is on the last Friday of the month. If you change your address during the year, you need to update your information via Access Plus.

Registration Procedures

After consultation with your major professor or temporary advisor, you will handle your initial registration online through Access Plus. You can view the Schedule of Classes online via the Iowa State University (ISU) homepage at http://www.classes.iastate.edu. Additional information regarding this subject can be found in: Graduate College Handbook, Ch. 2. http://www.grad-college.iastate.edu/handbook/

ISU I.D. and Social Security Number

ISU identification cards (ISU Card) are available at 0530 Beardshear (4-2727). F-1 visa holders must bring a passport, form I-94, and form I-20 to the International Student and Scholars Office.

Changes in your Registration

Information on the procedures for adding or dropping courses can be found under Registration Changes in the Graduate College Handbook. Your major professor may have to sign on any changes, depending on the period for adding/dropping.

Keys

Keys to rooms you will require access must be requested by your major professor. The office staff in your department will order keys for you after receiving the request. You may pick up keys in the Building Access Services office in the General Services Building with your signed key request form. You are responsible for the security of the locations for which you have keys. You are responsible for returning the keys to the Building Access Services office at the end of your degree program or when you leave the department. Do not give your keys to another person. The University will place holds on your degree and/or transcripts if you do not return your keys. Lost keys are replaced at your expense.
Office Staff Assistance

Departmental office personnel are available for assistance through your major professor (i.e., your home department) for things such as ordering keys and large photocopying tasks related to your major professor’s activities. Your major professor’s account number will be required. The office staff does not assist in preparation of coursework materials (except for Teaching Assistants which should be handled through the instructor), thesis typing or other non-research related work. If you are in doubt, ask your major professor.

The office staff handles the accounts for many professors and graduate students. Therefore, your quick response to their inquiries is a professional courtesy, and will facilitate a productive relationship.

Off-campus Orders

Each laboratory group probably has its own system for obtaining supplies. Ask your major professor for assistance, or have one of the current students in the laboratory assist you. Your laboratory group should have the pertinent catalogs. IGPNS students should utilize the resources available to them in their home department. Please note that ordering items subject to regulatory control require special considerations. Refer to procedures provided by the appropriate campus regulatory group for up-to-date procedures.

Most major professors and laboratories utilize purchasing cards (P-card) to place orders directly. A P-card works just like a credit card with respect to the information that needs to be provided to the vendor. Note that only the person whose name appears on the card should be placing the actual order. After placing an order using a P-card, a receipt of the transaction that displays part of the P-card number, as well as a P-card usage form (available from the office staff), must be filled out and provided to the appropriate office staff to ensure that the proper fund accounts are used for the purchase. Questions regarding the use of P-cards can be directed to your departmental office personnel.

On-campus Orders

The Department/Centers offices have a supply of requisition forms for ordering supplies from the University Bookstore, Central Stores and Chemistry Stores. However, much of this can be accomplished on-line through AccessPlus and the CyBuy link, once individuals are registered users.

Intramural Purchase Order forms are used for obtaining supplies and services from on-campus units. The forms can be obtained from the Department/Center offices and/or downloaded at http://www.controller.iastate.edu/templates/universityforms.htm. The Intramural Purchase Order must be approved (signed) by the Department Office staff before you can obtain the supplies or services.
Packages

Pick up packages in the appropriate department office as soon as possible after notification of their arrival. Turn in the packing slips and receipts (date and print your name on them) as soon as the item is received or within 24 hours. Packing slips can be found enclosed in the box or attached to the exterior side of the box. If you cannot locate the packing slip, please write on a sheet of paper the following information: vendor name, description of items, quantities, your name, the date you received the items, and a note that a packing slip was not enclosed with the items. When receiving items that require refrigeration or must be placed in a freezer upon arrival, please make every effort to anticipate when the item will arrive and be available to pick it up when contacted by your department – the department staff often find it difficult to locate someone in a given lab to handle perishable items.

If you have not received your items within 10 days after issuing a purchase requisition or if an expected overnight delivery has not been received, please contact the office staff for assistance with reconciling the delay. You will be notified immediately after the order is placed if the item is backordered, has been discontinued and/or has been substituted.

Returns

All returns of items must be handled through the appropriate Department/Center office. This practice helps prevent misunderstandings and delays due to lack of required information and forms, such as return authorizations and credits. Several businesses require that returns be processed within 10 days of receipt of items. Some vendors charge a restocking fee for returned items if the error originated with ISU.

Copies

There are numerous options for copying personal materials located on or near campus. Personal use includes classwork-related material, except when it is part of your responsibilities as a Teaching Assistant, in which case the instructor that you are working for should provide you with an account number to access departmental machines or university copy centers.

Travel

Students can apply for a Professional Advancement grant (PAG) by downloading the form from http://www.gpss.iastate.edu/students/pag/. There are a number of opportunities available to graduate students to request funds to support travel. These are discussed in more detail at the end of this Handbook. Contact your Department Office regarding travel requirements before booking a flight or hotel.

PROGRAM POLICIES

This section will introduce you to specific IGPNS policies that you should become familiar with. Many of the items discussed here can also be found in the Graduate College Handbook.
However, some of the programmatic policies and requirements may differ from those of the Graduate College, and may depend on the IGPNS student’s home department and college.

Selection of Major Professor - Program Research Assistants (RAs) Only

This is an important decision as this person will be your advisor and mentor for your graduate career here at ISU. Several factors enter into this decision. The most important factor is the research that is conducted in the professor's laboratory. We recommend that you visit with a number of professors in the program before making your final decision. We also recommend that you talk with your graduate student colleagues to get their perspective on this important decision.

New students who are supported by an IGPNS Research Assistantship (RA) are required to rotate with 2-3 professors prior to selection of the major professor. These students will be assigned a temporary advisor from members of the IGPNS Advisory and/or Admissions Committee. After the first term, program-supported students will select a major professor from the IGPNS Graduate Faculty list (see Appendix A 1).

Procedure for Changing Major Professors

Changing major professors is not encouraged, but if you find it necessary to switch major professors to complete your program, you should first discuss this matter with your present advisor. You must also discuss this with the potential new advisor to confirm that they are willing to assume this role for you. In addition, you are encouraged to meet with the relevant department chair and the IGPNS Director of Graduate Education (DOGE) before the change is finalized.

Procedure for Admission to IGPNS Doctoral Program

Four ways are possible for admission to the doctoral program:

1. Students who have earned the M.S. degree from a program other than the IGPNS or from another university may be admitted into a doctoral program.

2. A student may be admitted into the IGPNS doctoral program after completion of the M.S. degree in the IGPNS. The following steps must be taken as part of the application process:
   a. After a student completes the M.S. degree in the IGPNS, the major professor reports to the DOGE the student's request to continue for a Ph.D. A letter signed by the major professor and the Program of Study (POS) Committee must be submitted to the DOGE.
   b. The student completes a Masters Student on PHD Track in Same Department' form (available on the Graduate College website) and submits it directly to the IGPNS Admissions Committee (220 MacKay Hall). After the Admissions Committee makes a decision, the DOGE will submit a letter to the Graduate College to indicate the student will continue as a doctoral student.
3. A student who begins the M.S. degree program in the IGPNS can request to change to the doctoral program with the recommendation of the major professor and the POS Committee. The major professor reports to the DOGE the student's request to change to the Ph.D. program and provides the formal recommendation of the student's POS Committee. The DOGE will submit a letter to the Graduate College to indicate that the student will continue as a doctoral student.

4. A student who has exceptional credentials in both academic and research endeavors during their undergraduate degree program may be admitted directly into the Ph.D. degree program. Recommendations for direct admittance will be considered upon review by the IGPNS Admissions Committee.

Assistantships

Upon your acceptance into the graduate program, you received information about available funding. The IGPNS does have a limited number of RAs available on a competitive basis. However, most students are supported by research grants awarded to their major professor. Usually, this will be arranged between the student and the professor prior to the student’s arrival at ISU. Additional information about funding can be found in the Scholarships/Fellowships section of this manual. All assistantships in the IGPNS are RAs, meaning that you are being paid to conduct research. The assistantship qualifies you as a C-base employee. Other benefits include partial to full scholarship credit towards your tuition and enrollment in the student health insurance plan. The research assistantship is a half-time position, and you are required to work at least 20 hours per week, maintain a 3.0 or greater grade point average, and take a minimum of 9 credits in both the Fall and Spring semesters. However, you will likely work more than 20 hours weekly in order to complete your research and your degree in a timely manner.

Graduate Assistant Health and Dental Insurance

Health Insurance Plan – Graduate assistants with an appointment of one quarter time or more receive self only health insurance coverage as a benefit of employment, enrollment in the self only health insurance plan is automatic and the cost is paid for by your department.

Dental Insurance Plan – Graduate assistants with an appointment of one quarter time or more are eligible for the dental insurance plan which is partially subsidized by the university and the employee premium will be deducted from the GA’s paycheck. Enrollment can be done on AccessPlus during open enrollment or by submitting a paper enrollment form at other times of the year.

Dependents - Graduate assistants may also enroll their lawful spouse or domestic partner, and unmarried dependent children under age 26. A portion of the monthly premium will be deducted from the Graduate Assistance paycheck when adding coverage for dependents. A paper enrollment form must be completed and returned to University Human Resources, 3810 Beardshear. Dependents must be added within 30 days of your hire date or with a qualifying event. Note: Once you and your dependents are added to the plan, you will be required to remain on the plan until the end of the policy year or until your assistantship ends.
For plan specifics, costs, open enrollment dates and benefit details for the health and dental insurance plans please see the University Human Resource, Student and Scholar Health Insurance Program website.

**Seminar Attendance**

There will be many seminars presented during your tenure as a graduate student. It is the expectation of the faculty that you will take advantage of this educational opportunity and attend all seminars in your respective home department (e.g., FSHN 682; ANS 603). This means you may be attending seminars that are "not in your area". However, if you actively engage in the presentation, it is quite likely that you will learn valuable information that you would not be exposed to. Seminars are an easy way to expand your knowledge in areas that are not related directly to your research. We acknowledge that research schedules are demanding and that your research work may, because of necessity, interfere with scheduled seminars. However, you should not routinely plan research activities such that they conflict with your seminar requirements. Seminar attendance is part of your professional development, and is REQUIRED and monitored. If for a legitimate reason, you cannot attend seminar, you should communicate this to your major professor, the faculty member in charge of seminar, and the IGPNS DOGE. All IGPNS students are required to register and attend NUTRS 680 (Modern Views in Nutrition) and the summer lectureship, NUTRS 505.

**Graduate Tuition**

All IGPNS students pay in-state graduate tuition; however, the amount of tuition the student is responsible for varies, depending on degree being sought, funding mechanism, and the major professor. All students can expect at least some portion of tuition costs to be covered from external sources. The expectations must be discussed with the DOGE for rotating RAs and/or the major professor. For Fall and Spring semesters, students should register for full time study (minimum 9 credits). During the Summer Semester, students should be registered for a minimum of 2 credits. In addition, registration and tuition corresponding to 2 credits will be required for students graduating during the summer session or taking their preliminary examination.

**The Research Problem**

The research you conduct as a graduate student is the most important part of your program. Thus, considerable time should be devoted to choosing your topic. If you are funded on a research grant from your major professor, there is a high probability that you have already discussed your plan with your advisor and the decision has been made. Others may not have any idea what they would like to accomplish. A good place to start is with your major professor; he/she will likely have multiple ideas that relate directly or indirectly to their ongoing research programs. Your advisor may refer you to some published literature as background information, and provide guidance about a literature review to help you get started. It is also productive to discuss your ideas with other graduate students doing similar work. If you are working on your Master's degree, your major professor will guide you through this process and help in choosing a topic, which can be completed in 2-3 years. Ph.D. students will play a much larger role in the research decision. Most advisors will expect Ph.D. students to generate novel ideas themselves, but will offer advice to help refine the topic and
experimental approach.

Specializations

The IGPNS has three specializations within the program: Animal Nutrition, Human Nutrition, and Biochemical and Molecular Nutrition. IGPNS graduate faculty are affiliated with one or more specializations and graduate students can indicate their specialization on the POS form. Besides being an organizational tool and framework for faculty and student research, each specialization has some variation in course requirements beyond the core coursework that is expected from all IGPNS students.

IGPNS REQUIREMENTS

The IGPNS awards M.S. and Ph.D. degrees in Nutritional Sciences. There are specific minimum course work requirements for each degree. Each student is required to consult with their advisor or major professor every term prior to registration for classes. The minimum requirements for the degree programs are listed below, but approval of the course work for the degree program requires approval of the POSC, the IGPNS DOGE, and the Graduate College.

The Program of Study Committee (POSC)

This committee is chosen by the graduate student and the major professor, and is approved by the DOGE. The POSC directs the type of courses that will best meet the needs of the student and also the number of credits to be taken. The agreed contract is called the Program of Study Committee (POSC), which must be submitted electronically through AccessPlus. Instructions and worksheets to help prepare the POSC form for electronic submission are available on the Graduate College’s website. The Program of Study Committee must be completed by specific deadlines the semester before graduation. The deadlines are posted on the Graduate College website.

Composition of the POSC for M.S. Degree Students

The Master’s POSC consists of at least three members of the Graduate College graduate faculty. It must include two members, including the major professor, from the IGPNS graduate faculty. The third member of the committee must be from outside the field of study, to provide perspective and act as an advocate, if necessary, for the student. A term member of the graduate faculty may participate in the direction of a student’s master’s research as a co-major professor if a member of the graduate faculty serves as a co-major professor and jointly accepts responsibility for the direction of a program of study.

Composition of the POSC for Ph.D. Degree Students

The POSC for the IGPNS doctoral program consists of at least five members of the Graduate College graduate faculty. It must include at least three members, including the major professor, from within the IGPNS graduate faculty. One member of the committee must be from
outside the field of study, to provide perspective and act as an advocate, if necessary, for the student. A term member of the graduate faculty may participate in the direction of a student’s dissertation research as a co-major professor if a member of the graduate faculty serves as co-major professor and jointly accepts responsibility for direction of the program.

**MINIMUM CREDIT AND COURSE REQUIREMENTS**

**Nutritional Sciences Graduate Major Curriculum**

**Minimum Credit Requirements for the M.S. Degree**

- NUTRS 501 - *Biochemical and Physiological Basis of Nutrition: Macronutrients & Micronutrients* (4 cr)
- Biochemistry [BBMB 404 - *Biochemistry I* (3 cr) & 405 - *Biochemistry II* (3 cr), or 420 - *Physiological Chemistry* (3 cr)]
- STAT 401 - *Statistical Methods for Research Workers* (4 cr)
- Physiology [NUTRS 549 - *Advanced Vertebrate Physiology I* (4 cr.), KIN 550 – *Advanced Physiology of Exercise I* (3 cr.), or KIN 551 – *Advanced Physiology of Exercise II* (3 cr.)]
- FSHN 580 – *Orientation to Nutrition Research* (1 cr.), or AnS 501 – *Survey of Animal Disciplines* (1 cr.), or similar departmental orientation course
- Additional graduate-level courses (4 credits minimum) in advanced (500-600 level) Nutritional Sciences course offerings (consult course lists based on specialization)
- FSHN 581 – *Training Seminar* (1 cr.) and seminar attendance every Fall and Spring semesters or AnS 603 – *Seminar in Animal Nutrition* (1 cr.) every Fall and Spring semesters
- NUTRS 680 - *Modern Views in Nutrition* (R cr)
- FSHN 681 – *Seminar* (1 cr.) (FSHN students only - enrolled in the semester when presenting thesis) or department equivalent
- FSHN 682 – *Seminar Reflection* (1 cr.) (every Fall and Spring semester for students with FSHN as home department) or ANS 695 (available Spring Semester only) (One credit for all M.S. degree candidates with ANS as home department).
- FSHN 590C – *Special Topics-Teaching* (1 cr.), or ANS 590L – *Special Topics-Teaching* (1 cr.), or home department equivalent; 1 credit as part of TA requirement (once per degree)
- NUTRS 699 – *Research in Nutritional Sciences* (Var. cr.) (requires temporary advisor or major professor’s section number available at [http://www.fshn.hs.iastate.edu/graduate-program/forms/](http://www.fshn.hs.iastate.edu/graduate-program/forms/))
- NUTRS 505 – *Short Course* (1 cr.) (summer lectureship – attend every year)
- GR ST 565 - *Responsible Conduct of Research in Science & Engineering* (1 cr)
Minimum Credit Requirements for the Ph.D. Degree

- Biochemistry (total of 6 credits including MS credits)
- STAT 402 - Statistical Design and the Analysis of Experiments (3 cr)
- FSHN 580, or ANS 501
- Physiology (total of 3 credits including MS)
- Additional graduate-level course in the field of study as deemed appropriate by the POS committee
- FSHN 581 (if not taken in the M.S. program) and seminar attendance every semester, or ANS 603 every Fall and Spring semester
- NUTRS 680 - Modern Views in Nutrition (R cr)
- FSHN 681 (enrolled in the semester when presenting dissertation) or department equivalent
- FSHN 682 (only graduate students with FSHN as home department) or ANS 695 (two semesters for students with ANS as home department.)
- FSHN 590C - Special Topics-Teaching (1 cr.) or AnS 590L, or home department equivalent; 1 credit as part of TA requirement (once per degree).
- NUTRS 699 (requires temporary advisor or major professor’s section number available at http://www.fshn.hs.iastate.edu/graduate-program/forms/)
- NUTRS 505 - Short Course (1 cr.) (summer lectureship – attend every year).

Seminar Attendance: For both MS and PhD students, satisfactory attendance at relevant departmental seminars is required every term, not just when enrolled to present thesis research. FSHN 682 is required of all graduate students who have declared FSHN as their home department. Students will be exempted from FSHN 682 for the following reasons: an off-campus internship for the entire semester with confirmation by the major professor; or enrollment in required courses, i.e., on POS, that conflict with FSHN seminar meeting.

ANS 695 is required of all graduate students who have declared ANS as their home department. M.S. students complete at least one semester and PhD students complete at least two semesters.

Required courses and substitutions

All decisions regarding courses that meet a requirement in IGPNS will be made by the IGPNS Curriculum Committee, which is composed of members from multiple departments within the program. New and existing courses to be considered for inclusion in the program requirements will be reviewed by the committee. The committee will review the course syllabus and any other relevant materials to aid in the decision making process. Likewise, the committee will evaluate and decide all course substitution requests. Such requests should be made in writing by the major professor and signed by all members of the students POS committee.
IGPNS Preliminary Examination

Requirements for the Ph.D. degree in Nutritional Sciences include a written and oral examination – an oral examination is the minimal Graduate College requirement. In brief, both activities will be handled by the candidate’s POSC. This should be taken into account when choosing members of the POSC to ensure that there is coverage across the broad discipline of Nutritional Sciences. To that end, the POSC is encouraged to consult other faculty members in the development and/or grading of the written examination, including those that serve as instructors for the core course in Nutritional Sciences, NUTRS 501.

Purpose/Intent of the Written Preliminary Examination: The purpose of this examination is to provide an opportunity for graduate students to integrate a wide array of nutrition-related material to prepare them as Nutritional Sciences doctoral candidates and professionals. The written preliminary examination will be based on the graduate program's core courses, including NUTRS 501, biochemistry, physiology, and on basic knowledge of nutrition. Because the exam is intended to be comprehensive in nature, the written preliminary examination may also cover other areas related to nutritional sciences. The oral portion of the examination is also under the jurisdiction of the student's advisor and POSC. This examination typically serves as a follow-up to the written examination to further explore areas that might require development of additional expertise by the student.

Administration: The POSC will prepare and administer the written Preliminary Examination, following a request by the student’s major professor. All members on the POSC are encouraged to submit questions to the major professor, and should feel free to consult other faculty with expertise in Nutritional Sciences as needed. It is the responsibility of the major professor, in consultation with the student, to decide on a timetable for the exam. Students are encouraged to consult members of their POSC to discuss the examination and obtain suggestions for appropriate preparation.

Grading: Following completion of the written examination, the major professor will provide each grader with the questions and the student's responses as soon as possible. Faculty members are encouraged to return the graded examinations with written comments to the major professor within 7 to 10 days. Faculty should provide clear comments to ensure accurate communication to the student, committee members, and advisor. Once the grades are compiled, the graded examinations will also be passed on to the student to allow him/her to peruse the responses and critiques of each question. A follow-up oral examination with the student and his/her POSC will be held within one month of the written examination.

The POSC, in consultation with the major advisor, will provide specific recommendations to the student to facilitate improvement in areas of deficiency. These recommendations will be at the discretion of the committee, but may include additional course work, assigned readings and presentation topics. In the event of a failure, the graduate student will have the opportunity to retake the examination the following year to remain in the program. The intervening year should allow the student to make additional preparations, as recommended
by the committee and major advisor. If the student who has failed retakes the next scheduled examination but does not pass, the student's registration in the doctoral program will be canceled.

**Nutritional Sciences Graduate Minor Curriculum**

9 to 12 credits required*

Nine credits of graduate level nutrition (approved by the POSC) from the list below.

Required: NUTRS 501

Additional courses may be selected from: FSHN 463, 590A, 665, 690, and/or NUTRS 503, 504, 505, 518, 519, 561, 562, 563, 564, 597, 618, 619, 620 695.

*In addition, students who have not taken FSHN 360 or its equivalent (nutrition with a biochemistry perquisite) must take this course, in which case the Nutrition graduate minor will be comprised of 12 credits.

**Grades**

As indicated in the Graduate College Handbook, a student is required to maintain a cumulative GPA $\geq 3.0$; failure to do so will result in the loss of tuition support by the program or major professor. There is currently a one-semester grace period for students during their first term as a graduate student before enforcement of this policy. It should also be noted that the various home departments in the program might have more stringent requirements. For example, the FSHN Department has a policy which stipulates graduate students must earn a grade of B- or better in all courses within the major (i.e., Nutritional Sciences), regardless of GPA. The issue of grades and GPA is discussed further at the end of the Handbook.

**Interdisciplinary Graduate Student Club**

Graduate students from the departments of Food Science and Human Nutrition, Animal Science, Kinesiology, BS/MS Diet and Exercise and Interdepartmental Graduate program in Nutritional Sciences have an opportunity to discuss post-doctoral experiences, future job opportunities, and a variety of other topics by being part of the Interdisciplinary Graduate Student Club (IGSC). This club was conceptualized and formed by student representatives of the above mentioned departments strongly supported by the Faculty. IGSC became active in the Spring of 2011 and has conducted formal and informal seminars, presented by faculty and professionals from government and industry. IGSC has numerous activities apart from organizing seminars that improve career advancement. The activities include:

- Mock interviews conducted by academic and industrial professionals
- Curriculum Vitae development
- Practice sessions for poster and oral presentations for scientific conferences and thesis/dissertation defenses
- Mentoring new graduate students
✔ Recognition of our graduating students
✔ Recreational activities like indoor and outdoor sports activities, dining out etc.,)

Broaden your graduate experiences at Iowa State University by being a part of the IGSC.

GRADUATE COLLEGE REQUIREMENTS

M.S. students must take 30 credits for their degree, of which approximately 20 are course credits. Ph.D. students must take 72 credits (which may include credits earned for the M.S. degree) with approximately 36-40 course credits. Students must maintain a cumulative GPA \( \geq 3.0 \) to receive tuition support from the Graduate College. New students will receive a one-semester grace period at the beginning of their first year of graduate study.

Preliminary Examination

Ph.D. students are required to take a preliminary examination for the doctoral program. For IGPNS, the student’s POSC is responsible for both the written and oral components of the preliminary examination. A Request for Preliminary Examination form must be submitted to the Graduate College at least 3 weeks prior to the date of the examination. The examination rigorously tests your knowledge of the major, minor, and supporting academic areas. Preparation requires intense study. Students may find it helpful to study with others who are also preparing for the examination. More information on preliminary examinations can be found in the Graduate College Handbook and at the Graduate College’s website (http://www.grad-college.iastate.edu/).

Final Examination (Thesis or Dissertation Defense)

All graduate students defend their research work at a final examination by their POSC. Some students choose to present their final seminar just preceding the examination. However, seminar and examination presentation times are at the discretion of the student and major professor. Students are required to make a department-wide announcement of the final defense location and time at least 2 weeks before the seminar.

The Graduate College has requirements for preparation and submission of the thesis or dissertation, and the final oral examination (defense). Absolute thesis format requirements include margins, font, text spacing, page numbering, title page and signature page format, and paper quality. The Graduate College maintains the expectation that every thesis will reflect professionalism and scholarship, and expects POSC members to take greater responsibility for the professional appearance of each thesis.

The title page has been revised to include the names of all committee members. The Graduate College signature line has been removed from the signature page. First submission of a thesis will no longer be required (however, a preliminary format check is strongly advised). The Request for Final Examination form must be submitted to the Graduate College at least 3 weeks before the examination date.
All theses and dissertations must be submitted electronically. There is a $100 non-refundable fee at the time of filling out the diploma slip that will only be charged once.

TEACHING REQUIREMENT (IGPNS)

Teaching Assistant (TA) Policies

All graduate students in the IGPNS are required to serve as a TA once for each degree. Note that although this requirement is part of the IGPNS, the guidelines for fulfilling it reside at the departmental level. Part-time students who work off campus may have to make arrangements to fulfill this requirement. The IGPNS Advisory Committee must approve the arrangements.

All Students

The minimum requirement is to be a TA for one class per degree. The TA is required to enroll in 590 in the appropriate department (e.g., FSHN 590C; AnS 590L) for 1 credit (Special Topics, Teaching), which is graded by the respective instructor on an A-F basis.

FSHN Students

TA assignments are made near the middle of the Spring semester for the following academic year. Both graduate students and instructors are asked for their preference in the assignment procedure. In general:

- TAs will be required to provide a direct teaching experience to the students in the class. A teaching experience can take on many forms, such as presenting lectures, leading a small group or review discussion, being the lead instructor on a laboratory exercise, or guiding students in preparing for in-class presentations.

- TAs will be required to directly participate in developing and grading exam materials or other course assignments.

- TAs will be required to be available to work with students as needed, including having office hours and interacting one-on-one with students.

There are certainly many other activities that TAs can be involved in as additional choices or options. Faculty are strongly encouraged to offer such opportunities, as well as fulfill any requests by the students themselves.

It is important to keep in mind that the basis for having graduate students fulfill a TA requirement is for faculty to provide them with the experiences involved in teaching a class and to mentor them in this regard – little is gained if the student simply attends lectures, sets up the room, and passes out material. It is also vital that the assignment of a student to a given class meets the student’s needs as well as that of the instructor. However, ensuring that the TA needs of the department (i.e., lab courses, etc.) are fulfilled always has precedence over meeting the desires of the
students. Moreover, it is vitally important that the student and faculty have a clear understanding of what is required prior to the start of the semester, and that evaluation of both the student and mentor following the conclusion of the class is accomplished. To that end, the FSHN Graduate Program Committee in consultation with the Associate Chair has developed some additional activities for both the student and instructor:

- Graduate students will submit a brief statement to the FSHN Graduate Program Committee regarding three (3) courses they would like to be a TA for (in order of preference) and the basis for their choice. For each choice, this should include why that particular course, their familiarity with the course and its content, and what experiences they would like to obtain.

- Instructors will provide a brief statement to the FSHN Graduate Program Committee justifying the need for a TA and what types of experiences will be provided, including those that will be required and those that will be optional.

- Once matched, the student and instructor will develop a brief statement outlining the requirements, options, and outcomes that will occur over the course of the semester. This document will be submitted to the FSHN Graduate Program Committee.

- Both the instructor and student will provide an evaluation of the TA experience at the conclusion of the semester. Instructors are already required to submit an evaluation of their TA to the Graduate Program Coordinator (copies will be sent to the Department Chair, Associate Chair, Graduate Program Committee, DOGE, and student); thus, the student should do the same with respect to both the instructor and the overall TA experience.

**ANS Students**

The Animal Science Department considers teaching experience to be an important part of all graduate students’ professional development. Therefore, teaching experience is required of all graduate students. Teaching provides valuable experience in planning, preparing, and delivering material related to your study and promotes the development of important communication skills that will be assets in your career. Thus, the Department structures its graduate program to incorporate teaching opportunities for all students.

To meet this requirement, all graduate students are required to register for ANS 590L Special Topics-Teaching. ANS 590L is a variable credit course that may be taken for 1-3 credits. M.S. degree candidates are required to complete at least one semester of ANS 590L, registering for a minimum of 2 credits. For students in a Ph.D. program, at least two semesters of ANS 590L are required with registration for at least 2 credits each time (4 credits in total). Coaching of judging teams by graduate students may be used once as a means of meeting the teaching requirement if the student is registered for 2 credits of ANS 590L while doing so.

International students must pass the Oral English Certification Test (OECT) (http://acp.grad-college.iastate.edu/?q=node/15) prior to registering for ANS 590L and assisting with the teaching program.
Students may be involved in teaching at several different levels, depending upon needs, previous experience, the course material being taught, faculty needs, and the number of students enrolled in a given course. The most common teaching experience entails responsibility for one or more laboratory sections of a specific course. Normally, teaching assignments will take into account the student’s area of interest within animal science. Teaching assignments for graduate students are normally arranged by July 1 for the coming academic year. Graduate students will be contacted during spring semester to determine if they wish to be involved with teaching in the coming year and to determine teaching preferences.

Faculty are also contacted to determine the teaching needs. Teaching assignments are then made with the best matches possible. Students who wish to become involved with teaching of a specific course should contact the DOGE for Animal Science departmental majors. If you are given responsibility for a laboratory section, the usual duties include:

- Planning and conducting laboratory classes with guidance from the faculty member(s) in charge of the course;
- Organizing, presenting, and explaining subject matter to students;
- Assigning, grading, and returning in a timely fashion student work;
- Assisting students in solving problems related to the class;
- Arranging for your major professor to attend one of your classes to evaluate your teaching;
- Submitting potential exam questions to the faculty in charge of the course;
- Developing and grading exam or quiz questions;
- Contributing your ideas for course improvements during planning/discussion sessions with faculty;
- Providing scores, grades, or performance evaluations, as appropriate, for each of your students at the end of the semester; and
- Requesting student evaluations of your teaching at the end of the semester and summarizing the results for the faculty member in charge of the course and for your major professor.

The Center for Excellence in Learning and Teaching (CELT) provides excellence resources and help for students to prepare for and evaluate teaching. See [www.celt.iastate.edu/homepage.html](http://www.celt.iastate.edu/homepage.html)

**Part-time Students**

In some instances, part-time students may not be able to complete the teaching requirement in the usual manner by serving as a TA in one of the Department courses. A part-time graduate student can make alternative arrangements to fulfill this requirement. The student’s POS Committee must approve the alternative arrangement. Then the student must appeal in writing to the IGPNS Advisory Committee via the DOGE.

The appeal should include the following items:
1. A letter from the student should be submitted to the DOGE, which explains why it is not feasible for the student to fulfill this requirement in the usual manner. The letter should be co-signed by the student’s major professor.

2. In lieu of serving as a TA, the student can obtain pre-approval for example, for teaching or supervising interns in the student’s workplace. Goals and objectives for this activity should be stated and approved by the student’s POSC. Another possible alternative is for the student to provide expertise as a guest lecturer in a FSHN course at least once per year during the student’s graduate career. The student could also meet the teaching requirement by providing a series of lectures in the student’s area of expertise in a course or courses within their respective department.

3. The student will be required to complete a written report of the alternate teaching experience, such as fulfillment of the goals and objectives for teaching or supervising interns or a synopsis of the experience as a guest lecturer. This report will be submitted to the major professor with a copy sent to the DOGE.

Speak-Teach Tests

All non-native English speakers are required to take the SPEAK-TEACH test given by the Graduate College. International students with a degree from the U.S. are required to take the test. Students cannot fulfill their teaching requirement until they have taken and passed the SPEAK-TEACH test. In some cases, a low passing score will need to be supplemented with an additional course in teaching communications suggested by the Graduate College. You can contact the Speak-Teach Office (4-7996) to find out dates the tests will be offered.

THESIS/DISSERTATION DEPOSIT AND COPIES

The Graduate College Office (1137 Pearson Hall) publishes a notice, available by the beginning of each semester, which lists the specific dates for final deposit of the thesis to be eligible for graduation that semester. This notice is also available on the Graduate College web site.

The Graduate College also publishes a Thesis Manual, available at 1137 Pearson Hall or online at the Graduate College website. Although a first deposit of the thesis is no longer required, a preliminary format check is strongly advised. One of the appendices of this manual is a checklist, which can be used for the preliminary format check of the thesis. The preliminary format check of the thesis is delivered to the Thesis Office at 1137 Pearson Hall by the required date (about eight weeks before graduation). (A suggestion from an experienced fellow student, “if you make your preliminary format check several days to weeks before the deadline, you will get the document returned more quickly”). When the format check deposit is picked up, it must be reproduced and copies given to the POS committee members at least three weeks prior to the final examination. When final corrections have been made, the thesis is printed or copied and all signatures (major professor, the POS committee members, and the department chair), are obtained.

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fee at the time of filling out the diploma slip that will only be charged once.

**Home Department Requirements**

Although the Graduate College requires all theses to be filed electronically, departments may still require paper copies, including signatures. The FSHN and ANS departments require that the major professor, all members of the POS committee, and the Department Chair sign the title page. The FSHN Department also requires an abstract for the entire thesis. In addition to the electronic filing of the thesis, most major professors require a bound hard copy. Copies for other committee members and any personal copies are at the discretion of those individuals. Students are expected to pay all costs associated with thesis preparation, including, but not limited to copying, preparation of figures and photographs, and binding.

**Department Chair Signature and Exit Interview**

Please deliver the signature page, signed by all of the committee members and the major professor, along with the abstract to the Department Chair for review and consideration 2-3 days before you need the Department Chair’s signature. Please schedule an appointment with the Department Chair or Director of Graduate Education for an Exit Interview.

**PROGRAM COMMUNICATION**

Graduate students will receive many written and electronic communications during their graduate program. Check your mailbox and email often. Your prompt response is the professional response. Currently, the program office for IGPNS is 220 MacKay, Brenda Emery (fshngraduate@iastate.edu).

**Electronic Mail**

In addition to receiving email from IGPNS, many departments have various networks that may also be useful. Graduate students can be addressed through fshngradstudents@iastate.edu for messages of interest to graduate students in FSHN and ansc@iastate.edu for graduate students in Animal Science. FSHN faculty or FSHN staff can be reached at fshnfaculty@iastate.edu or fshnstaff@iastate.edu, respectively. ANS faculty and staff can be reached at ans_faculty@iastate.edu and anstaff@iastate.edu respectively.

**GRADUATE STUDENT EVALUATION**

Graduate students will be evaluated annually. Currently, this is handled by the student’s home department. For FSHN students, a subcommittee comprised of the DOGEs will be responsible for evaluating graduate student progress.

Graduate students must submit an annual report each Spring Semester. Reports are to be signed by the major professor and submitted to the graduate program coordinator by the date indicated on the form. Failure to turn in the report will result in a hold on all your academic and
financial activities.

The annual review of graduate students will be completed by mid-June. Each student will receive a letter from the committee that summarizes the results of the review and the student's progress during the preceding year. A copy of the letter will be sent to the student's major professor and a copy placed in the student's file. The committee will report the results of all students' reviews to the various department Chairs and make recommendations for sanctions where appropriate.

**VACATION & SICK LEAVE**

During each academic year, students will be allowed two weeks vacation plus University holidays with approval from the major professor. Time off must be discussed with your major professor. University holidays are listed at [http://www.registrar.iastate.edu/calendar/](http://www.registrar.iastate.edu/calendar/). These dates change each year. The university holidays are Labor Day, Thanksgiving Day and the day after, Christmas Day, New Year’s Day, Martin Luther King Day, Memorial Day and July Fourth. Other days must be taken as vacation.

Students need to submit a signed (by student and major professor) vacation card to their department office prior to their vacation. Note that because RAs are considered a half-time (20 hours/per) position, one week of vacation is equivalent to 20 hours of work. It is the student’s responsibility to notify their major professor when sick and fill out the sick leave card. Failure to notify the major professor of absences could lead to leave without pay or termination.

**ACADEMIC REGULATIONS AND RESPONSIBILITIES**

Regulations and guidelines allow ISU to operate smoothly and under control. There are a number of guidelines, which graduate students must follow to insure no problems arise in obtaining either the M.S. or Ph.D. degree. Please keep in mind that these regulations are promulgated and under the jurisdiction of the Graduate College, not at the Department or Program. If you have any questions regarding any of these guidelines, please see your major professor, the DOGE or call the Graduate College at (4-4531). One of the first concerns of new graduate students is the number of credits needed and any grade requirements involved.

The ISU Graduate College requires a minimum of 30 graduate credit hours with 22 of those earned at ISU for the M.S. degree. A thesis must be prepared and defended at the final examination. For a Ph.D. degree, a minimum of 72 graduate credits is required with at least 36 credits earned at ISU. The POSC can make recommendations to accept credits earned while obtaining a Master’s degree. For any classes listed on the POSC, the lowest grade acceptable is a C. However, various departments may have adopted more stringent requirements that must be met by IGPNS students in those respective departments. For FSHN, the department has adopted a policy that for courses within the major (i.e., Nutritional Sciences), the lowest acceptable grade is a B-. Classes must be repeated when a grade does not meet either of these requirements. For classes not on the POSC, a D is the lowest grade acceptable. Research credit grades will no longer be used in computing GPA’s. If the GPA of a student drops below 3.0, the Graduate College will place that student on academic probation and not provide tuition support. Likewise, the Department and/or major professor will not
provide tuition support when a student’s cumulative GPA < 3.0, except during the first semester grace period for new students. For specific problems or if situations arise, the Graduate College will handle these on a case-by-case basis. A good reference for further questions is the Graduate College Handbook.

As a graduate student certain professional responsibilities apply and must not be overlooked nor neglected. These responsibilities allow for a good academic environment, which in turn allows for expression of various opinions and maintains intellectual honesty. It is the responsibility of teaching assistants to maintain confidential student-instructor relationship at all times. Graduate students have certain rights in the university system such as free expression in the classroom and freedom from prejudiced evaluations. The Board of Regents Uniform Rules of Personal Conduct, and the University General Rules govern the rights and responsibilities of all graduate students. These are printed in the Iowa State University General Catalog, as well as the Graduate College Student Handbook.

**FEES AND PAYMENT SCHEDULES**

Bill payment is always a concern for new graduate students. The fee payment schedule is printed each semester in the schedule of classes. Most fees are payable in three installments for fall and spring semesters. If payment is not made, a hold will be placed on registration and you may be dropped from enrollment if the problem is not corrected. A statement containing all charges is mailed on the first of each month to the interim address listed on Registrar's records. Students are responsible for assuring the Registrar has the correct address, and that they receive a bill. Tuition and fees are posted on the student’s U-bill online through Access Plus. Even though all or a portion of the tuition is paid by the department or major professor, the student is responsible for paying fees on time. If fees are not paid, the student will be charged a late payment fee and may have a hold placed on their registration for nonpayment. A Fee Payment Information Brochure is available from the Receivables Office in Room 0880 Beardshear.

**GRADUATE AND PROFESSIONAL STUDENT SENATE (GPSS)**

Graduate students do have a channel for concerns via the Graduate and Professional Student Senate (GPSS). Each department elects one to five representatives. If a graduate student experiences any problems in their classes or their studies at ISU, they should contact their Graduate Student Representative. The GPSS can also be contacted at their office, Room G44 in the Memorial Union. The GPSS office also has a variety of information on various grants available to graduate students.

**SCHOLARSHIP & FELLOWSHIP APPLICATIONS**

Scholarships and/or Fellowships are available from a number of sources to qualified applicants. In addition to the information below, students should contact faculty, student representatives, professional societies and publications, Department-specific resources, and relevant websites. ISU home page provides information on fellowship possibilities.
**Departments and Colleges**

Many departments and colleges have scholarships and fellowships available to those students that are appropriately affiliated. For IGPNS students in the FSHN Department, scholarships are administered annually by CALS, CHS and the department. For IGPNS students in the ANS Department, scholarships are administered by the DOGE of the department. Due dates and availability of forms will be announced and are often posted on graduate student bulletin boards in the department. Guidelines and forms are available online at the appropriate websites as well.

**Professional Advancement Grant**

Graduate and Professional Student Senate (GPSS) provides up to $200 for students attending professional meetings or presenting their research in each fiscal year. Since these funds are on a first-come first-served basis, students should file for these funds as early as possible. Forms are available at [http://www.gpss.iastate.edu/](http://www.gpss.iastate.edu/). You are encouraged to apply for these grants as soon as possible. This grant can also be used to fund non-thesis or non-dissertation research.

**Professional Societies**

A number of professional societies (e.g., American Society for Nutrition, ASN; Society for Experimental Biology & Medicine) provide scholarships and/or fellowships for qualified graduate students to support their research and travel to professional meetings. Announcements of these opportunities and relevant forms can be found on the society website. They are often announced by the Department and are posted on graduate student bulletin boards. Please see the professional journals or check with your major professor or other faculty for other scholarship opportunities.

**DEPARTMENT & CENTER TRAVEL GRANTS**

The Departments of FSHN and ANS offer travel scholarship for students attending professional meetings. For students in FSHN, an application is available at [http://www.fshn.hs.iastate.edu/faculty-staff/procedures-forms/travel-scholarship/](http://www.fshn.hs.iastate.edu/faculty-staff/procedures-forms/travel-scholarship/). For students in ANS, contact your major professor for possible travel assistance.

**EMPLOYMENT OPPORTUNITIES**

There are a number of offices around campus where graduating students can explore job opportunities.
In addition, a number of companies advertise for job openings in leading food science and nutrition journals and magazines. Parks Library has computer advertisements for jobs. Your major professor may be one of your primary sources of information pertaining to employment opportunities or postdoctoral positions.

**SPECIFIC RESPONSIBILITIES**

Certain duties and responsibilities are clearly spelled out in this section of the handbook for quick reference.

**Responsibilities of Department Chairs and/or DOGE:**

- General supervision, counseling, and coordination of graduate student programs;
- Recommendation of graduate candidates for admission to the Graduate College;
- Allocation of assistantships;
- Process official forms;
- Maintain Graduate Student Handbook on program webpage;
- Provide an orientation session for all incoming graduate students at the beginning of the Fall semester;
- Development of a scholarly spirit among the graduate students and graduate faculty;
- Inform major professors about necessary procedures;
- Review the academic standing of all graduate students each year;
- Assure that a POSC is filed by the end of the second semester;
- Confirm that there is a balance of members one each POSC;
- Assure that the preliminary examination is taken in a timely matter;
Encourage active participation by all POSC members;

Assure that Ph.D. preliminary examinations and M.S. and Ph.D. final examinations dates and locations are announced department-wide in a timely manner for other graduate faculty;

Encourage active departmental seminar participation.

**Responsibilities of Major Professor:**

Responsibility for the program, guidance, training, supervision, arrangements, welfare, and ethics awareness of each graduate student assigned to him or her;

The conduct of regular scheduled conferences with the student each semester;

Acquainting the students with department policies and providing personal counseling to help the student develop;

Arranging for space for the graduate student research project;

Checking and approving all necessary graduate forms and requests for materials, travel and services;

Suggesting members for the POSC;

Suggesting courses appropriate for the individual graduate student's POS;

Checking the academic standing of the student at the end of each semester, including written requests for full graduate status to the Graduate College and evaluating GPA; GPA < 3.0 or a grade of C+ or lower needs the immediate attention of the POSCand department chair or DOGE;

Requesting preliminary examination approval (form required);

Making initial acceptance of the thesis or dissertation, deciding when it is satisfactory for POSC review, requesting final examination (form required) and making announcement of date in departmental newsletter;

Seeing that an article based on the graduate thesis or dissertation is prepared and submitted for publication;

Confirming that graduate student has fulfilled the teaching responsibility;

Assuring that graduate students are active participants in departmental seminars;

Assuring that graduate student develops the ability to present scientific papers to departmental and at scientific meetings through participation in training seminars, and national and regional
meeting attendance and participation.

**Responsibilities of POSC Members:**

Primary responsibility for academic preparation of the student and development of the POSC;

Attendance of student seminars is encouraged;

Evaluating PhD student's readiness to be advanced to doctoral candidate via written and oral examinations;

Evaluate the written document of the graduate research project (thesis or dissertation);

In exceptional cases, recommend graduate student to proceed directly from B.S. degree to the Ph.D.

**Responsibilities of Graduate Program Assistant:**

Maintenance of a master file on all graduate students, which includes an up-to-date collection of all official papers for each student in their individual file;

Assign office space and desks to graduate students;

Documentation that the teaching requirement is fulfilled prior to graduation;

**Graduate Program Outcomes and Assessment**

The IGPNS requires all students admitted to the program to display satisfactory progress towards fulfilling their degree (MS or PhD) requirements. This includes completing the required coursework for the degree; attending departmental seminars; conducting original research; presenting research findings both orally and written; serving as a departmental TA for each degree; and satisfactory defense of research to the student’s POSC.

**Learning Outcomes**

- Have an in-depth and accurate knowledge and understanding of the field
- Understand central issues and current research areas that are important in the field
- Apply theoretical information to solve practical problems
- Prepare and communicate discipline-specific information in written and oral forms to scientific and lay audiences
- Design, conduct, and interpret research
- Facilitate learning in the classroom
Outcomes Assessment

- Satisfactory completion of degree course requirements with a minimum cumulative GPA \( \geq 3.0 \), including a grade of B- or better for courses within the major.
- Satisfactory seminar attendance
- Student-developed POSC assigned to ensure satisfactory program of study
- Successful defense of original thesis research to POSC
- For Ph.D. students, satisfactory completion of written and oral preliminary examination
- Professional presentation of thesis research as a departmental seminar
- Preparation of a manuscript for submission to a peer-reviewed journal
- Formal evaluation of teaching efforts
- Annual review of student progress by a committee of faculty
- Secure professional-level position in a relevant area such as academia, industry, government, or health care
GRADUATE FACULTY IN THE INTERDEPARTMENTAL GRADUATE PROGRAM IN NUTRITIONAL SCIENCES

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Willette, Auriel FSHN
Winham, Donna FSHN
Xin, Hongwei ABE

IGPNS Faculty by Specialization Area

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# COURSE LIST BY SPECIALIZATION AREA

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<tr>
<th>Animal Nutrition</th>
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<th>Molecular &amp; Biochemical</th>
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| Additional courses required for the MS and PhD will be determined by the POS Committee | KIN 501: Research Methods in Physical Activity (3 cr)  
KIN 570: Physical Activity Assessment for Health Related Research (3 cr)  
NUTRS 503: Biology of Adipose Tissue (2 cr)  
NUTRS 504: Nutrition and Epigenetic Regulation of Gene Expression (1 cr)  
NUTRS 506: Diet and Cancer (1 cr)  
NUTRS 519: Food Toxicology (3 cr)  
NUTRS 561: Medical Nutrition & Disease I (4 cr)  
NUTRS 563: Community Nutrition (3 cr)  
NUTRS 564: Medical Nutrition & Disease II (3-4 cr)  
NUTRS 597: Nutritional Aspects of Oncology (3 cr)  
NUTRS 618: Vitamins and Minerals (2 cr)  
NUTRS 619: Advanced Nutrition and Metabolism – Protein (2 cr)  
NUTRS 620: Advanced Nutrition and Metabolism - Energy (2 cr)  
NUTRS 695: Grant Proposal Writing (1 cr) | Refer to either the Animal Nutrition or Human Nutrition course list. |
# GRADUATE STUDENTS IN THE INTERDEPARTMENTAL GRADUATE
# PROGRAM IN NUTRITIONAL SCIENCES

## Fall 2016

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<th>Name</th>
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