Nutrition and Metabolism Graduate Program
COLLEGE OF AGRICULTURAL & LIFE SCIENCES
UNIVERSITY OF WISCONSIN–MADISON

Nutrition and Metabolism—PHD

Program Handbook

2025-2026

Department of Nutritional Sciences

Reference this handbook to learn about the unique policies, requirements, procedures, resources, and norms for graduate students in the Department of Nutritional Sciences.

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Who to Contact for Questions

Many of your questions about how to meet expectations and thrive as a graduate student will be answered by the various sources of policies, procedures, requirements, resources, and norms listed above. Several key positions in this department and on campus are ready to answer your remaining questions:

Graduate Program Coordinator/Manager
Each graduate program will have at least one department staff person typically called a graduate program manager (GPM) who serves as a point person for program policy and procedures. Graduate program managers are well versed in most elements of graduate education that extend beyond academic instruction in your program and will likely be your first stop for questions related to anything in this handbook.

Director of Graduate Studies
Each graduate program has one faculty member designated to direct its educational vision and structure, called the director of graduate studies (DGS).

Names and contact information of your graduate program manager and director of graduate studies can be found on your program's page in the *Graduate Guide*. Simply navigate to the "Major/Degree" tab, click on your program's name, and look for the contact information box on the right-hand side.

Faculty Advisor
Each student will be assigned a faculty advisor in the graduate program in which they are enrolled. Your faculty advisor(s) will be a key source of guidance for your academic development. Further description of the role of your graduate advisor can be found here. Guidelines for finding, changing, and working with your advisor can be found in the Advising & Mentoring section below. The name and contact information of your faculty advisor can be found on your Student Center on MyUW under "Academic Progress" and then "Advisors."

Graduate School Services
For general inquiries and graduate student services from the Graduate School, see the operations and front desk contact information on the Graduate School contact page.

Department & Program Overview

Modern nutrition is a multidisciplinary, integrative science, and the Nutrition and Metabolism (N&M) program has been developed to meet this diversity in approach and objective. It is the program's goal to provide graduate students interested in nutrition with an opportunity to obtain specialized training in a specific research area, as well as obtain a general background in the science and practice of nutrition. The program is sufficiently flexible to allow students with a wide variety of undergraduate degrees to meet the background prerequisites. The program draws on the strengths of faculty in several of the university's schools/colleges and academic departments to enhance the instructional and research experience.

The training objectives of the Nutrition and Metabolism program are to provide students with an understanding of basic nutritional principles as they apply to both humans and animals, to provide them with current knowledge in a specific area of emphasis, to make them aware of the integrative and multidisciplinary nature of nutrition research, and to direct them to success in a wide variety of career paths.

Students may reference the Guide at guide.wisc.edu to learn more about curriculum and admissions requirements.

Diversity, Equity, and Inclusion

UW-Madison's Nutrition and Metabolism program promotes and values the individuality of all students and works to maintain a positive climate within our department, schools/colleges, and university. Graduate students who are interested in the activities of the Department of Nutritional Sciences' Justice, Equity, Diversity, and Inclusion (JEDI) committee may contact the graduate program manager.

The expectations of students, faculty, and staff to help foster an environment that promotes the success of everyone include:

- Create and maintain a dialogue about diversity within the program.
- Work toward creating a program in which students and trainers from all backgrounds feel welcomed, appreciated, and included.
- Continually assess the needs of underrepresented minorities in the program and determine a plan for addressing said needs.

- Recognize that privilege exists and **use** such privilege to lift communities that have been systematically marginalized. Privilege is a responsibility.
- Encourage students, trainers, and staff to advocate for diversity by providing resources, such as time, space, and/or monetary support.
- Recruit, retain, and support people who have overcome different barriers and created opportunities in different ways.
- Educate ourselves and our community about the reality of implicit bias and the impact it has on science and education.

Campus resources for underrepresented student support

- Mentorship Opportunities in Science and Agriculture for Individuals of Color (MOSAIC)
- SciMed GRS Community
- Office of Access, Engagement and Funding (OAEF)
- Gender and Sexuality Campus Center
- McBurney Disability Resource Center
- Multicultural Student Center
- University Veteran Services
- Wisconsin Inclusion in Science & Engineering Leadership Institute (WISELI)

As part of an in-person research program on the UW-Madison campus, our program needs to acknowledge the history of the land of UW-Madison.

The University of Wisconsin–Madison occupies ancestral Ho-Chunk land, a place their nation has called Teejop (day-JOPE) since time immemorial.

In an 1832 treaty, the Ho-Chunk were forced to cede this territory.
Decades of ethnic cleansing followed when both the federal and state governments repeatedly, but unsuccessfully, sought to forcibly remove the Ho-Chunk from Wisconsin.

This history of colonization informs our shared future of collaboration and innovation.
Today, UW–Madison respects the inherent sovereignty of the Ho-Chunk Nation, along with the eleven other First Nations of Wisconsin.

How to Get Involved

As a graduate student at UW-Madison, you have a multitude of opportunities to become involved on campus and in your academic discipline. This involvement often enhances

your academic, professional, and personal growth through developing advanced leadership, communication, and collaboration skills. It also provides the opportunity for professional networking.

In Our Discipline

Due to the interdisciplinary nature of nutrition, students may choose from a plethora of professional development opportunities. Below are examples of national organizations and conferences that our students have engaged with.

American Society for Nutrition (ASN)

- Membership in the ASN: https://nutrition.org/our-members/
- Annual Nutrition Science Meeting

American Society for Biochemistry and Molecular Biology

- **https://www.asbmb.org/membership**

Aging

- Biology of Aging
- American Aging Association Annual Conference

Breastfeeding and Maternal Health

- Annual International Breastfeeding Conference

Cancer

- Cancer Genetics and Epigenetics
- Cancer Cachexia Conference

Carbohydrates

- Carbohydrates Gordon Conference

Cystic Fibrosis

- North American Annual Cystic Fibrosis Conference

Diabetes

- American Diabetes Association Annual Scientific Sessions

Genetics/Genomics

- Human Genetics and Genomics

Gut Microbiome/Pancreas

- American Pancreatic Association | Annual Conference
- Digestive Disease Week | Annual Conference

Metabolism

- Metabolic Health Summit
- Society for Inherited Metabolic Disorders

Muscle Wasting

- International Conference on Sarcopenia, Cachexia, and Muscle Wasting

Obesity

- American Association of Clinical Endocrinology Annual Conference
- Obesity Medicine Annual Conference

Proteins

- Protein Folding Dynamics
- Protein Processing, Trafficking, and Secretion
- PepTalk: The Protein Science Week

Conference Series:

Experimental Biology (Assorted Topics)

Founded in 1912, FASEB began with a small group of dedicated scientists, from three independent organizations, who wanted to provide a forum for educational meetings, develop publications, and disseminate results of biological research. Now the nation's largest biomedical coalition, comprising 28 scientific societies and more than 115,000 researchers worldwide, FASEB is the recognized collective policy voice of biological and biomedical researchers.

Building on more than a century of service to the life sciences community, FASEB

- Represents 28 scientific societies and more than 115,000 researchers worldwide
- Hosts an array of scientific conferences and events each year
- Publishes the FASEB Journal, FASEB BioAdvances, and Washington Update
- Works to ensure a diverse and representative workforce in the biological and biomedical sciences
- Celebrates the efforts of those working to advance biological and biomedical sciences through an awards program
- Provides career resources through job/resume postings, fellowships, and networking
- Partners with affiliate organizations to advance awareness of biological and biomedical research

Gordon Research Conference Series (Assorted Topics)

The Gordon Research Conferences (GRC) provide an international forum for the presentation and discussion of frontier research in the biological, chemical, physical and engineering sciences and their interfaces. GRC is a nonprofit organization dedicated to building communities that advance the frontiers of science, bringing a global network of scientists together to discuss the latest pre-publication research in their field. GRC's unique format focuses on discussion and provides conferees with the opportunity to network informally during free afternoon times.

Keystone Conference Series (Assorted Topics)

Keystone Symposia will serve as a catalyst for the advancement of biomedical and life sciences by connecting scientists within and across disciplines at conferences and workshops held at venues that create an environment conducive to information exchange, generation of new ideas and acceleration of applications that benefit society.

STEM Conferences Focused on Diversity and Equity:

- Society of Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- Annual Biomedical Research Conference for Minority Students (ABRCMS)

In Our Program/Department

- **Justice, Equity, Diversity, and Inclusion (JEDI) Committee:**
  Students who are interested in being involved with diversity and equity within the department are welcome to join the Justice, Equity, Diversity, and Inclusion committee.

- **Nutrition and Metabolism Admissions Committee:**
  Each year, Nutrition and Metabolism includes two graduate students on its admissions committee. Requests for nominations are sent out by the graduate program manager who will accept self-nominations or nominations of others.

- **Seminar Speakers**
  Each Fall and Spring term, our NS 931: Advanced Nutrition Seminar series brings speakers from outside UW-Madison to talk about their area of expertise in Nutrition. Each semester we look to students for suggestions of speakers to invite.

  To support the Nutrition and Metabolism graduate students' interest in furthering our collective goals for increasing justice, equity, diversity, and inclusiveness in the department and the graduate program, N&M students will be provided with one slot per semester for a seminar speaker of their choice and for which they serve as the host. In addition, the graduate student members of the JEDI committee will organize the selection and invitation process to choose one JEDI-related speaker per year.

The choice of speakers will be made by the students in consultation with the NS 931 faculty organizers before extending an invitation and the students will be responsible for arranging the itinerary of the invited speaker. To facilitate organizing the schedule of speakers each semester, the students will provide the name of the invitee(s) by April 1 and September 1 for fall and spring semesters, respectively. If they do not meet the deadline, they may lose the slot(s) for that semester at the discretion of the NS 931 faculty organizers.

The organization and selection of the speakers (JEDI and NS 931) will be determined by the graduate students. If the deadline is not met and the organizing faculty member must claim the slot(s), the faculty member can schedule a speaker from any area they choose.

On Campus & In the Community

The Wisconsin Idea is the principle that education should influence and improve people's lives beyond the university classroom. For more than 100 years, this idea has guided the university's work. You will find a list of ways to engage in campus and local community life at:

The Graduate School's Current Student Page

If you are a student actively involved in leadership and service activities, consider nominating yourself for membership in the following honor society:

Edward Alexander Bouchet Graduate Honor Society

Getting Started as a Graduate Student

This section guides you through important steps to take as you begin your journey as a graduate student at UW-Madison.

New Graduate Student Checklist

Be sure to review all steps listed on **The Graduate School's New Student Page.** In addition to a checklist for all new graduate students, this webpage includes sections with additional steps to take if you are a new international student, student with a disability, student veteran, student with children, or student with funding.

Your First Semester:

Activate your NetID:
You will need your NetID and password to access the My UW-Madison portal. To activate your NetID click on the ACTIVATE NETID button from the My UW Madison login screen. Enter your 10-digit student campus ID number and birthdate. The NetID you create and password you enter are keys to your access to the MyUW portal, so make a record of it and keep it private. If you are unsure about your NetID and password, contact the DoIT Help Desk at 608-264-4357.

Enroll in Courses: With the assistance of the graduate program manager and the director of graduate studies.

Get your Wiscard:
Get your UW ID card (Wiscard) photo taken at the Wiscard Office in Union South, room 149, M-F 8:30 am - 5:00 pm. You must be enrolled and have valid identification, such as a valid driver's license, passport, or state ID to get your Wiscard.

Orientation:
New student orientation for Nutrition and Metabolism is held the week before the start of class. During orientation, you will fill out the required paperwork for payroll and health insurance and register for your classes. Some of the week will be spent with scheduled talks given by faculty who are recruiting graduate students to join their labs.

Lab rotations:
If you are a rotator, in your first semester, you will spend time working in the labs of three professors whose work interests you. One of these will likely become your advisor.

Therefore, these lab rotations are one of the most important things that you will do in your first year at UW-Madison. The brief descriptions of research given in the rotation talks during orientation week should assist you in selecting the laboratories to visit. You are required to spend about four weeks in each of the three labs during the first semester. Additional rotations are allowed if a match cannot be made with the first three rotations. For students who are not on a fellowship or training grant, or are not direct admits, financial support is provided by the program through the period of rotations.

After the third rotation in the fall, the student will turn in the laboratory selection form to the N&M program. This form requires the student to list, in rank order, their top two choices for lab placement. The DGS, in coordination with the department chairperson, will review the lab placement requests of all fall rotators, discuss their choices with the faculty listed, do a final assessment of faculty funding, and make the decision about student placement. When placement is made, the student will join the new lab and the faculty will become their new advisor.

If a placement is not made, the N&M program will work with the student to identify rotations options for the spring semester. The student will be placed in the first lab where the student and mentor agree on placement. If the student is not able to find a lab by the end of the first year, they will be dismissed from the program.

Expectations during rotations: Students want to make sure they are maintaining the Nutrition and Metabolism program and Graduate School minimum cumulative GPA of 3.00. With that said, it is imperative students be present and dedicated to work in their rotating labs. Faculty mentors frequently have more students rotate than they have openings for. Decisions about the final placement of students in a lab to pursue their thesis research are made by the N&M program, in coordination with the faculty mentor, in December. Faculty will base their decision on accepting a student into their lab based on student performance during the rotation. Faculty frequently seek input from lab members concerning who they think is the best new lab member. Graduate student rotators are expected to be in the lab during normal lab working hours unless they are in classes or a seminar or have another reason for not being present. In the latter case, they should communicate the need for an absence with the mentor ahead of time. Rotors should attend lab meetings and may be asked to make a presentation of their rotation work.

Directly admitted students:

Under some circumstances, a student may be admitted directly to a faculty trainer's research group. Prospective direct admits must submit a formal application to the N&M

Admissions Committee, including a statement of purpose, CV, three letters of recommendation, and proof of funding from the faculty trainer whose lab they seek to join. Applicants must meet all prerequisite requirements listed in the program's UW Guide. If there are prerequisite deficiencies, the prospective admit and PI must address in writing to the N&M program how those deficiencies will be addressed. Any deficiencies are expected to be completed within two years. Direct admit students receive the same stipend as all graduate students in the N&M program. However, the N&M program and the department are not responsible for funding students admitted to the program by direct offer from a faculty trainer.

Direct admits do not participate in laboratory rotations but are required to participate in all N&M orientation events the week before the fall semester in which they matriculate. When having expectation conversations with your advisor, strongly recommends using the Nutrition and Metabolism Mentor-Mentee Guidelines. Directly admitted students are employees of the lab to which they were admitted. If you wish to leave the lab, or are asked to leave, **your mentor is required to provide the funds for a 4-week rotation** in another lab if the proposed new mentor is in the N&M program. The N&M program and the department cannot guarantee financial support for a rotation in a new lab.

First paycheck:
UW System employees are paid on a biweekly pay schedule. This is the pay schedule for 2025. This is the pay schedule for 2026.

Order your free Madison Metro Bus pass:
As a UW student, you can order a bus pass at no charge from Union South at the beginning of the fall and spring semesters. Visit the Transportation Services site for more information on Madison Metro bus services. Be sure to bring your Wiscard when picking up your bus pass. *Prerequisite: You must be enrolled.*

Attend the New Graduate Student Welcome, hosted by the Graduate School
This event provides a great opportunity to mingle with Graduate School deans and staff, hear from a panel of current students about grad student life, learn about the many campus and community resources available to you, and meet other new graduate students from across campus.

Develop a vacation time policy with your advisor:
Each student is expected to notify their advisor/PI well in advance of when they plan to be absent from campus. How long in advance is the decision of the professor. This and any lab policies about the timing of vacations and the total amount of annual vacation should be discussed with the advisor prior to (e.g. during rotations) or at the time of

entering the lab (direct admit). If a student is enrolled in classes, it is inadvisable to schedule a vacation during the semester.

Advising & Mentoring

Advising relationships are a central part of graduate education, important to both the experience and development of students and faculty members alike.

The Graduate School's definition of an advisor can be found here. Your advisor will assist you in acquiring the highest possible level of knowledge and competence in the field. Other roles of your advisor may include tracking your progress in completing your degree, assisting with course selection and planning your academic path, and helping you identify possible research mentors, committee members, and research opportunities. Your major advisor cannot be the chair of your advisory committee.

Both the student and advisor are responsible for making their expectations clear to each other. Be sure to discuss this with your advisor. See Nutrition and Metabolism Mentor-Mentee Guidelines below for further information about a tool we use in this program to formalize advising expectations.

Finding and Selecting an Advisor

Your advisor should be a faculty member in the program whose expertise and project/research interests match closely with those that you intend to acquire. To learn more about the faculty in your program, consider consulting the following sources:

- Presentations (courses and seminars) by the faculty member that you attend
- Our program website
- Faculty publications
- Students, postdocs and others in a prospective advisor's research group
- Rotating in a lab
- Mentor/Mentee Guidelines

Choosing Your Advisor

Normally selection of advisors occurs in December after rotations. Until an advisor is determined, students will be assigned to the director of graduate studies as their advisor. When you select your advisor and start to work in their lab, we strongly encourage using the Mentor-Mentee Guidelines to clearly establish expectations. When

a match is made between an advisor and a graduate student, the laboratory will provide funding to the graduate student contingent upon satisfactory progress in their program and in their research. Occasionally funding may come from teaching assistantships. Once placed in a lab, the graduate program manager will continue to provide enrollment guidance on program requirements and seek guidance from their advisor on additional coursework.

Additionally, you may wish to discuss training opportunities with a prospective advisor. Below are some questions to consider asking in this discussion, though it is not a complete list. You should spend some time identifying what is most important to you in your graduate training and ask questions accordingly. In addition to meeting with a prospective mentor, don't forget to also meet with members of the research program directed by the faculty member, other graduate students in the N&M program amongst others.

Questions to ask of prospective advisors

Adapted from IPiB handbook

- What thesis projects would be available to me if I were to join your group?
- Would these projects expose me to a variety of different approaches?
- In general, how available will you be to answer questions I might have?
- What is your philosophy regarding the amount of guidance the advisor should provide to a student during preparation of the thesis proposal, literature seminars, thesis writing, etc.?
- What are your expectations for the amount of time I should spend each day/week working in your group/lab?
- What regularly scheduled activities (e.g., group meetings, joint group meetings, research clubs) does your group participate in that provide an opportunity to get outside input on my research project and to hear about the work of other students and postdocs?
- Do you encourage your students to attend seminars and journal clubs, including those that may be outside of their narrow field of interest/research?
- Do students in your group/lab have the opportunity to attend professional meetings where they can interact with colleagues/researchers from other institutions?
- Do you include your graduate students in professional activities that will familiarize them with their field of interest/research, such as reviewing manuscripts and meeting with visiting speakers?
- How long do you think it should take me to get my degree?
- What are your former graduate students (if any) doing now?

- What is your general philosophy of graduate training and what goals do you have for your graduate students?

No faculty member is obligated to accept a student's request to serve as advisor, though invitations are often accepted unless the faculty member judges that a different advisor would serve your needs better. Final placement into a research group will be coordinated by the director of graduate studies at the end of the first semester.

Changing Your Advisor

Because the advisor-student relationship is one of mutual cooperation, it may be ended by either party. Every effort should be made to resolve issues in the advisor-student relationship before any decision is made to have the student change their advisor and lab. The student and advisor should speak directly to one another to ensure adequate research progress is maintained and to manage any concerns as they occur. Frequent effective communication, including in writing, is essential for a successful mentor-mentee relationship. If the student feels a conflict cannot be resolved after multiple discussions with their mentor, the student should consult with the director of graduate studies (DGS) and graduate program manager (GPM). The student can request a meeting of their advisory committee (with or without the advisor present if the student prefers) to help mediate a resolution. Depending on the nature of the grievance(s), students may follow the Graduate School grievances and appeals procedures listed here.

If a conflict cannot be resolved the student, in coordination with the DGS and the GPM, can seek a new N&M mentor. N&M faculty trainers will be queried by the program to determine which faculty have space and funding available. **If the student entered N&M as a rotator, their current PI is responsible for providing funding for a 4-week rotation.** Rotation funding for a student that entered the program via a direct offer cannot be guaranteed by the program.

After the rotation, the student and faculty, in coordination with the N&M program, will assess each other for placement. If a placement is made, the student will join the new lab and the faculty will become their new advisor. If a placement is not made, the N&M Executive Committee may petition the department chair for funding for a fifth rotation. Lack of funding may result in dismissal from the program, though every reasonable effort will be made to ensure the student can finish the remainder of the current semester.

If the decision to change labs is made during the fall semester when lab rotations for incoming students are occurring, no agreements should be made between the transferring student and individual faculty without prior consultation with the DGS and GPM. This is done to coordinate new lab placements with rotations of first-year students.

Graduate School policy requires every graduate student to have an advisor. Be sure to follow the procedures to select a new advisor (described above) **before finalizing the termination of your current advising relationship**. You can confirm that the name of your advisor has been updated in the official record by looking in your Student Center on MyUW under "Academic Progress" and then "Advisors." Nutrition and Metabolism will work to find the student an appropriate placement, but cannot guarantee placement by the re-match process.

Advising Compact/Guidelines

Clearly defined expectations for both the student and advisor are a crucial starting point for a strong relationship. Nutrition and Metabolism has developed mentor-mentee guidelines to help you communicate with your advisor after being placed into a research group. We encourage students and advisors to discuss and revisit guidelines biannually. All Nutrition and Metabolism students regardless of funding source are required to create and maintain an individual development plan (IDP) to help them set, track, and achieve their professional goals. Students can use their annual progress report meetings as the venue for sharing with their advisory committee as much information about their IDPs as they are comfortable sharing. The contents of the IDP may be kept confidential by the student, but the student's thesis advisor is required to report IDP activity annually.

Mentoring Networks

Graduating students have shared that many have benefited from establishing a strong interaction with additional mentors who may or may not be members of the advisory committee. These interactions typically arise from a shared research interest and provide an opportunity to obtain additional guidance in professional development. It may also lead to additional significant letters of recommendation. It is recommended that students seek out such mentorship in the first couple years of their graduate degree. Students have found the National Center for Faculty Development and Diversity Mentorship Map to help map out where they receive different types of mentorship and support.

Degree Requirements

Doctoral Degree

All students in the Nutrition and Metabolism PhD program are responsible for complying with the following requirements to complete the degree.

Requirements

For all current requirements to complete your degree (e.g., credits, courses, milestones, and learning outcomes/goals) see our program's page in the *Graduate Guide*. Navigate to guide.wisc.edu/graduate, then select "Degrees/Majors," our program's name, the "Named Option" of our program (if applicable; found near the bottom of the Requirements tab), and then "Requirements" from the navigation bar on the right side. You will be taken to a subsection of your program's *Guide* page that contains all official requirements for your degree. Similarly, see "Policies" from the navigation bar of our program's page to learn about policies affecting these requirements (e.g., prior coursework, probation, credits per term allowed, time constraints, grievances and appeals, etc.). For prior year policies that may be applicable to you, see guide.wisc.edu/archive.

Nutrition and Metabolism PhD students who entered the program in Fall 2023 or later are required to present a seminar on their research in NS 931 by the end of their 4th year (8th academic semester) in the program. Students who entered prior to Fall 2023 have the option to present at the end of their 4th year, or the semester in which they are graduating (spring semester if graduating in summer).

Required Courses

Core Courses		
NUTR SCI 600	Introductory Seminar in Nutrition	1
NUTR SCI 618	Research Approaches in the Era of Precision Nutrition	3
NUTR SCI/ BIOCHEM 619	Advanced Nutrition: Intermediary Metabolism of Macronutrients	3
NUTR SCI 799	Practicum in Nutritional Sciences Teaching	1-3
NUTR SCI 745	Grant Writing for Nutritional Sciences Research	2
Seminars		
Graduate Seminar		
Students must enroll in NUTR SCI 931 each semester, unless there is a course conflict, and complete a total of 10 credits.		10
NUTR SCI 931	Seminar-Nutrition	
Emphasis Seminar		
Students must complete one of the following seminars three times and present for a letter grade each time for a total of 3 credits. Seminar chosen in consultation with advisor that matches student's nutrition and metabolism area of emphasis.		3
NUTR SCI 881	Seminar-Topics in Human and Clinical Nutrition	
NUTR SCI/ BIOCHEM 901	Seminar-Nutrition and Metabolism (Advanced)	
AN SCI/ DY SCI 931	Seminar in Animal Nutrition	
Research		
Research Seminar		
NUTR SCI 731	Research in Progress Seminar	1
Research Nutrition		
Typically, students complete a total of 21 credits of NUTR SCI 991 to meet the 51-credit minimum. After enrolling in other coursework, non-dissertator students enroll in enough credits of NUTR SCI 991 to reach a total of 12 credits per fall and spring semesters.		21
NUTR SCI 991	Research Nutrition	
Electives		
Students select 6 credits of elective courses numbered 300 and above with the Grad 50% attribute, which may include additional statistics, biochemistry, and advanced topics courses as determined by the thesis committee.		6
Total Credits		51

Sample course plan

Fall 2025 **NS 600: Intro Nutrition Seminar (1 cr)** **NS 618: Precision Nutrition (3 cr)** **NS 731 : Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (6 cr)** ***12 credits***	**Spring 2026** **NS 619: Macronutrients (3 cr)** **NS 731 : Research in Progress (1 cr)** **NS 799: Learning internship (2 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (5 cr)** ***12 credits***	**Summer 2026** **NS 991: Research credits (2 cr)** ***2 credits***
Fall 2026 **Elective (3 cr)** **NS 731 : Research in Progress (1 cr)** **NS 901: Biomolecular Seminar (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (6 cr)** ***12 credits***	**Spring 2027** **Elective (3 cr)** **NS 645: Grant Writing (2 cr)** **NS 731 : Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (5 cr)** ***12 credits***	**Summer 2027** **NS 991: Research credits (2 cr)** ***2 credits*** **Pass your preliminary exam - earn dissertator status**
Fall 2027 **NS 731 : Research in Progress (1 cr)** **NS 901: Biomolecular Seminar (1 cr)** **NS 931: Nutrition Seminar (1 cr)** ***3 credits***	**Spring 2028** **NS 731 Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (1 cr)** ***3 credits***	**Summer 2028** **NS 991: Research credits (3 cr)** ***3 credits***
Fall 2028 **NS 731 : Research in Progress (1 cr)** **NS 901: Biomolecular Seminar (1 cr)** **NS 931: Nutrition Seminar (1 cr)** ***3 credits***	**Spring 2029** **NS 731 Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (1 cr)** ***3 credits***	**Summer 2029** **NS 991: Research credits (3 cr)** ***3 credits***
Fall 2029 **NS 731 : Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (1 cr)** ***3 credits***	**Spring 2030** **NS 731 Research in Progress (1 cr)** **NS 931: Nutrition Seminar (1 cr)** **NS 991: Research credits (1 cr)** ***3 credits***	

Course Elective Recommendations

These are elective courses that are recommended by the Nutrition and Metabolism program. Elective courses should be selected in consultation with your advisor and your advisory committee.

Course	CR	Course Description	Term Off.
Animal Science 414: Ruminant Nutrition Pre-Req: AN SCI/DY SCI 311, (BIOCHEM 301 or 501) or graduate/professional standing	3	Integrates nutritional and biochemical concepts to understand digestive and metabolic processes in dairy and beef cattle, which are then quantitatively represented to predict and manipulate production and health outcomes.	F
Animal Sciences 849: Genetic Epidemiology Pre-Req: Graduate/professional standing	3	An introduction to genomic epidemiology, including a general overview of genetics and Mendelian and complex inheritance, as well as various elements of study design, such as participant ascertainment; phenotype definition; biologic sample selection; genotyping, sequencing, and quality control; measurement of covariates; and choice of analytic methods. Briefly covers original study designs; focuses on current study designs.	F
Biochem 550: Principles of Human Disease and Biotechnology Pre-Req: Biochem 501 or 507	1-6	Covers modern approaches to human diseases and biotechnology, emphasizing the molecular and biochemical basis of cancer and metabolic disorders with an overview of recent advances in applied biotechnology. Investigates the mechanisms of disease onset, progression, and therapeutic strategies through contemporary primary research literature.	F, Sp
Biochem 551: Biochemical Methods Pre-Req: Biochem 501 or Biochem 507 or concurrent enrollment	4	Introduction to modern biochemical laboratory techniques and current biochemical literature. Includes student seminar presentations based upon scientific literature that parallels experiments performed in the lab.	F, Sp,
Biochem 601: Protein and Enzyme Structure and Function Pre-Req: CHEM 345 and BIOCHEM 501 or 507	2	Protein structure and dynamics. Protein folding. Physical organic chemistry of enzymatic catalysis. Analysis of enzyme kinetics and receptor-ligand interactions. Enzymatic reaction mechanisms.	F

Course	CR	Course Description	Term Off.
Biochem/Genetics 620: Eukaryotic Molecular Biology Pre-Req: BIOCHEM 501, 508 or graduate/professional standing	3	This course focuses on the basic molecular mechanisms that regulate DNA, RNA, and protein metabolism in eukaryotic organisms.	Sp
Biochem 625: Mechanisms of Action of Vitamins and Minerals Pre-Req: CHEM 345 and previous or concurrent enrollment in BIOCHEM 501 or 507; or graduate standing	2	Emphasizes the importance of coenzyme and cofactors of enzymes (i.e., vitamins and minerals) in biochemistry. All aspects of the biochemistry of coenzymes will be covered, including their biosynthesis as far as is known, the biochemical reactions they catalyze, their chemical and spectroscopic properties, and the mechanisms by which they facilitate biochemical reactions.	Sp
Biochem/Nutr Sci 645: Molecular Control of Metabolism and Metabolic Disease Pre-Req: BIOCHEM 501 or 508 or graduate standing	3	Examination of various physiological states and how they affect metabolic pathways. Discussion of a number of special topics related to the unique roles of various tissues and to metabolic pathways in disease states, including adipocyte biology, beta-cell biology, epigenetics, inflammation, and aging related diseases	F
Biochem 729: Topics in Biochemistry	1-6	Advanced Topics	
CBE 781: Biological Engineering: Molecules, Cells, and System Pre-Req: Graduate/professional standing	3	Protein engineering and protein-protein interactions, receptor-ligand binding, cell metabolism and signaling, metabolic engineering and synthetic biology, tissue engineering. Additional topics may be covered such as: regenerative medicine, biomaterials, microbe-host interactions	F
CRB 630: Proteomics Aproaches for Biologists Pre-Req: Graduate Student or Biochem 501 or Biochem 507	2	Proteomics and metabolomics are playing an increasingly important role in biology and medicine. Many biology labs are now starting to use proteomics and metabolomics in their research projects. Includes the essential fundamentals and applications in mass spectrometry-based proteomics and metabolomics to address biological/medical problems. Design of	F, Sp

Course	CR	Course Description	Term Off.
		proteomics/metabolomics experiments, troubleshooting, and proper interpretation of the results.	
CRB 710: Developmental Genetics Pre-Req: Graduate/professional standing	3	Covers a broad range of topics in animal development, with an emphasis on molecular mechanisms. Focuses on common themes, with the goal of understanding and analyzing current research in developmental biology and genetics.	F
Genetics 626: Genomic Science Pre-Req: Graduate Students Only	2	Brings cutting-edge topics in the genomic sciences into the reach of those in chemistry, biology, engineering, computer science & statistics fields. Enables biologically-oriented students to deal with advances in analytical science so that they may incorporate new genomic science concepts into their own scientific repertoires.	Sp
Genetics 885: Advanced Genomic and Proteomic Analysis (even years) Pre-Req: Class enrollment is limited to 20 students due to computer lab space; General statistics, intermediate or advanced Genetics, and instructor consent	3	With the availability of genome sequences and high-throughput techniques, organismal physiology can now be examined on a global scale by monitoring the behavior of all genes or proteins in a single experiment. This course will present modern techniques in genomics and proteomics, with particular focus on analyzing the data generated by these techniques. Course material will cover genomic sequencing, comparative sequence analysis, phylogeny construction and phylogenomics, transcription factor motif discovery, DNA microarray analysis, techniques in mass spectrometry, proteomic screening methods, and protein-interaction network analysis. In addition to lecture time, the course consists of a 2-hour per week computer lab where students get hands-on experience analyzing genomic and proteomic datasets. In addition, students conduct a semester-long computational project of their choice that uses multiple computational methods discussed in class	F
Kines 774: Metabolic responses to exercise and stress Pre-req: ANAT&PHYS 720 or cons instr.	2	Examination of the metabolic and biochemical responses to acute and chronic exercise and environmental stress. Emphasis placed on the mechanisms underlying these responses	Sp
Kines 779: Human Muscle Function in Health and Disease	2	Multidisciplinary seminar on human muscle function in health and disease. The course is geared toward advanced undergraduate and graduate students in kinesiology, physical and occupational	Sp

Course	CR	Course Description	Term Off.
Pre-Req: Graduate/professional standing		therapy, motor control and behavior, neurophysiology resident in neurology and other related allied health professionals.	
Life Science Communication 561: Writing Science for the Public Pre-Req: Junior standing	3	Focuses on science writing concepts and techniques that can be used to communicate purposefully and effectively with public audiences about science, research, and technology.	Sp
Medicine 720: Endocrinology and Metabolism Pre-Req: Graduate/professional standing	3	Provides a broad grounding in endocrinology and metabolism with an emphasis on human and human-related disorders wherever possible. Explores further the physiological and molecular mechanisms by which the endocrine regulation of metabolism acts to preserve mammalian health, and how dysfunction in these mechanisms leads to disease, with an emphasis on diabetes, obesity and hypertension.	Sp
Medical Genetics 565: Human Genetics Pre-Req: Graduate standing, GENETICS 466, 468, or BIOCORE 587	3	Principles, problems, and methods of modern human genetics. Focuses on how researchers discover the genetics of diseases and how those discoveries are used to improve clinical practice. Surveys aspects of (i) the molecular function of the human genome, (ii) the basic principles of human genetics including statistical genetics, quantitative genetics, and genomic variation in human populations, (iii) the genetics of rare disorders and common diseases, and genomic analysis approaches, including genome-wide association studies and sequencing, and (iv) how genetics are used in medicine and discussions covering ethical considerations of human genomic data.	F
Nutri Sci 875: Adv. Topics	1-6	Assorted Topics in Nutritional Sciences	
Oncology 703: Carcinogenesis and Tumor Cell Biology Pre-Req: Graduate/professional standing	3	Viral, chemical, and physical factors involved in tumor formation in humans and experimental animals; biology and biochemistry of neoplasia, both in vivo and in vitro	F
Pathology 750: Cellular and Molecular Biology/Pathology	2	The emphasis is on our current understanding of molecular and cellular mechanisms. Wherever possible, human diseases are used to illustrate the outcome at the organismal level of defects in these	Sp

Course	CR	Course Description	Term Off.
Pre-Req: Graduate/Professional Standing		mechanisms. Lectures will draw from the current research literature and cover topics such as cell and tissue organization, intracellular sorting, cell migration and growth.	
Pathology 751: Biology of Aging Pre-Req: Graduate/professional standing	2	Examines the molecular, cellular, physiological, and clinical aspects of aging beyond basic biology in a biomedical/clinical research setting. Aging and age-related diseases are examined via the combined expertise of basic scientists and clinicians covering a range of topics directly relevant to biology of aging research, including the clinical perspective, the research perspective, and the integration of the two.	F
Pathology 803: Pathogenesis of Major Human Diseases Pre-Req: Graduate/professional standing	3	This course will focus on disease pathogenesis and discussion of the leading disease research model. Throughout the course, we will combine expert clinicians, basic scientists, and literature review on specific major diseases.	F
Pop Health 552: Regression Methods for Population Health Pre-Req: B M I/STAT 541 or B M I/POP HLTH 551	3	Introduction to the primary statistical tools used in epidemiology and health services research; multiple linear regression, logistic regression and survival analysis	Sp (occ.)
Pop Health 636: Public Health Genomics *(formerly Pop Health 888)* Pre-Req: (Junior standing and BIOLOGY/BOTANY/ZOOLOGY 151) or graduate/professional standing	1	Provides an introduction to public health genomics through a review of fundamental principles of genetics, the use of genetic information in clinical and research settings, and its implications for disease management and prevention, and health promotion. Explores policies that guide public health and discusses current ethical, legal, and social implications of these policies.	Sp
Pop Health 650: Adv. Topics Pre-req: None	1-6	Advanced Topics	Varies
Pop Health 651: Advanced Regression	3	Extension of regression analysis to observational data with unequal variance, unequal sampling, and propensity weights, clusters and	F

Course	CR	Course Description	Term Off.
Methods for Population Health Pre-Req: Pop Health 798 and Pop Health 552; or Instructor Consent		longitudinal measurements, using different variance structures, mixed linear models, generalized linear models, and GEE. Matrix notation will be introduced and underlying mathematical and statistical principles will be explained.	
Pop Health 798: Epidemiologic Methods Pre-Req: Pop Health 797 or Instructor Consent	3	The main emphasis is the design and interpretation of epidemiologic studies. Includes hands-on experience in the evaluation of epidemiologic evidence, the analysis of epidemiologic data, and the discussion of strategies aimed to improve study validity and efficiency	Sp
Pop Health 849: Genetic Epidemiology Pre-Req: Graduate/Professional Study	2	Introduction to genetic epidemiology. Topics will include a general overview of genetics and Mendelian and complex inheritance, as well as various elements of study design, including participant ascertainment; phenotype definition; biologic sample selection; genotyping, sequencing, and quality control; measurements of covariates and choice of analytic methods.	F, Sp
Statistics/BMI 541: Introduction to Biostatistics Pre-Req: Grad Standing	3	Course designed for the biomedical researcher. Topics include: descriptive statistics, hypothesis testing, estimation, confidence intervals, t-tests, chi-squared tests, analysis of variance, linear regression, correlation, nonparametric tests, survival analysis and odds ratio	F
Statistics/BMI 542: Introduction to Clinical Trials I Pre-Req: STATS/BMI 541	3	Intended for biomedical researchers interested in the design and analysis of clinical trials. Topics include definition of hypotheses, measures of effectiveness, sample size, randomization, data collection and monitoring, and issues in statistical analysis.	F, Sp
Statistics 571: Statistical Methods for Bioscience I Pre-Req: Graduate/professional standing	4	Descriptive statistics, distributions, one and two-sample normal inference, power, one-way ANOVA, simple linear regression, categorical data, non-parametric methods; underlying assumptions and diagnostic work.	F
Statistics 572: Statistical Methods for Bioscience II	4	Continuation of STATS 571. Polynomial regression, multiple regression, two-way ANOVA with and without interaction, split-plot design, subsampling, analysis of covariance, elementary sampling, introduction to bioassay.	Sp

Course	CR	Course Description	Term Off.
Pre-Req: STATS/FORESTRY/ HORT 751			
Statistics 641: Statistical Methods for Clinical Trials Pre-Req: MATH/STAT 310 or graduate/professional standing	3	Statistical issues in the design of clinical trials, basic survival analysis, data collection and sequential monitoring. Intended for statistics graduate students; those with medical backgrounds should take STAT 542.	F
Statistics 642: Statistical Methods for Epidemiology Pre-Req: MATH/STAT 310 or graduate/professional standing	3	Methods for analysis of case-control, cross sectional, and cohort studies. Covers epidemiologic study design, measures of association, rates, classical contingency table methods, and logistic and Poisson regression.	F, Sp

Graduate School Breadth Requirement

Nutrition and Metabolism students are not required to complete a doctoral minor or graduate/professional certificate but are strongly encouraged to pursue one. Details on minor options can be found here.

- Doctoral Minors Recommended for Nutrition and Metabolism students:
  - Biochemistry, Doctoral Minor
  - Community-Engaged Scholarship, Doctoral Minor
  - Distributed, Doctoral Minor
  - Endocrinology-Reproductive Physiology, Doctoral Minor
  - Life Sciences Communication, Doctoral Minor
  - Statistics, Doctoral Minor

- Graduate/Professional Certificates Recommended for Nutrition and Metabolism students:
  - Clinical and Community Outcomes Research, Graduate/Professional Certificate
  - Consumer Health Advocacy, Graduate/Professional Certificate
  - Data Science, Graduate/Professional Certificate

- Fundamentals of Clinical Research, Graduate/Professional Certificate
- Global Health Online, Graduate/Professional Certificate
- Global Health, Graduate/Professional Certificate
- Science Communication, Graduate/Professional Certificate

Advisory Committee

Doctoral advisory committees advise and evaluate satisfactory progress, administer preliminary and final oral examinations, evaluate a thesis or dissertation, and/or sign a degree warrant. Your major advisor cannot be the chair of your advisory committee. For general guidance from The Graduate School on the role and composition of committees as well as an online tool to determine if your committee meets minimum requirements, see this policy page. In addition to this general guidance, our program requires the following of doctoral committees:

First-year Committee Meeting:
By the end of your first year (before the start of fall semester of Year 2), you, in coordination with your advisor, will form a PhD advisory committee consisting of 3-5 faculty members, including your advisor. While a committee of three members is sufficient at this time, you will need to select a full five-member committee prior to taking the preliminary exam. Your committee must consist of 3-4 Nutrition and Metabolism members (one of whom must be a member of the Department of Nutritional Sciences) and 1-2 must have a graduate program affiliation outside of Nutrition and Metabolism. If a committee member is a trainer in Nutrition and Metabolism and in another program (e.g. IPiB, CMB, etc.) and their name can be found on that second program's website, they can fulfill the role of the outside member. The advisor cannot serve as the outside committee member. Return completed forms to the graduate program manager.

If you have questions about the advisory committee membership, please contact the Graduate Student Coordinator and/or use the UW-Madison's Graduate School Advisory Committee Review Tool.

Your advisor provides individualized guidance on how to select committee members. *No one has more at stake in a graduate program than the student.* To obtain a quality education, the student must play an active role in coordination with their committee to:

- choose a concerned, knowledgeable in the research area or methodologies you will use
- schedule annual progress report meetings in a timely manner

- inform the membership of national associations and conferences
- design a challenging, high-quality learning program
- participate in regular (at least annually) professional and research development

If an Option A minor is chosen, one member needs to be a professor from the minor department. Under normal circumstances, the committee membership will remain the same for the entire period of the student's graduate career. However, if your research focus changes and faculty with different expertise are needed, changes in the committee membership can be made. The final membership of your committee must be approved by the graduate program manager.

Informal Establishment of Additional Mentors:
Many graduating students have benefited from establishing a strong relationship with additional mentors who may or may not be members of the advisory committee. These interactions typically arise from a shared research interest and provide an opportunity to obtain additional guidance in professional development. It may also lead to additional significant letters of recommendation. It is recommended that students seek out such mentorship in the first couple years of their graduate degree.

Annual Meetings:
You are required to meet with at least three members of your advisory committee each year except for the years you complete your preliminary exam and your defense and thesis. During these annual meetings, anticipated timelines for the progress of the research project should be discussed and concrete guidance should be given about completing the dissertation. **Annual meetings must occur within one calendar year of each other.** If your first committee meeting occurs on July 1, 2025, your second meeting must be held on or before July 1, 2026. Return completed forms to the graduate program manager.

Preliminary Exam

The Nutrition and Metabolism program has one preliminary exam. The exam is focused on a written research proposal that you prepare and distribute to your committee before the exam. Your PhD advisory committee will also serve as your examination committee for this exam. The student is responsible for presenting all necessary forms and files at examinations. You must complete all coursework before taking your preliminary exam.

- Timing and Scheduling of the Exam

Note that you must take the exam by the end of the sixth semester; summer session does not count as a semester. Students are encouraged to complete their preliminary exam prior to the start of Year 3.

Note that the exam requires a warrant from the Graduate School **requested three weeks prior to the exam**. The Preliminary Warrant Request Form is available on the Nutritional Sciences website. This form will go directly to the graduate manager who will then request your warrant from the Graduate School. You must inform the graduate program manager of the date/time/location of your exam, and schedule a room in the Nutritional Sciences building, if needed. When this exam has been successfully completed, the committee members will sign the warrant, and the Graduate School will admit you to dissertator status.

- Forms and Items Needed for the Preliminary Exam Meeting:
    - Warrant—requested from the program manager **three weeks prior to preliminary exam**
    - Overall Evaluation of Preliminary Exam—print one copy for your mentor
    - Evaluation of Preliminary Exam Performance—print a copy for each member of your committee

- Policy of Retaking Examinations:
  Should your committee decide that the exam needs to be taken again you must do so within six months. You and your mentor must petition the graduate program manager, in writing, to receive a waiver of the six-month requirement. Students may not take an exam more than twice.

Preliminary Exam Format

- Objective and Format of the Preliminary Exam:
  Successful completion of a PhD degree requires that the individual can perform original research. One indicator of this is the capacity to use previously known as well as new information to synthesize new ideas or hypotheses. Thus, the purpose of the research examination is for the student to demonstrate their ability to define a research problem and to plan and describe approaches for addressing an area of interest. You should show an ability to focus a series of experiments or research efforts toward answering a specific research problem. This examination provides you with an opportunity to illustrate your ability to develop new hypotheses and to design experiments that test those hypotheses. The proposal usually focuses on your doctoral research, but another topic can be selected for

this exam by you and your mentor. The completed research proposal must be given to the examination committee TWO WEEKS before the exam.

An important role of the examination committee is to provide you with feedback and suggestions regarding the proposed research and to stimulate constructive student/faculty interaction on the research problem. To this end, each committee member will complete an evaluation form of the research proposal and exam. The advisor will collect the forms and record the ratings on an overall evaluation form for Nutrition and Metabolism records. The advisor will discuss the committee's evaluations and recommendations with the student. After a successful defense of the proposal, your chair will sign your Overall Evaluation of Research Exam form to document committee approval.

The recommended structure of the research proposal is the same as that used for F31 proposals submitted to the National Institutes of Health (NIH). The NIH format was selected as an outline for the research proposal because it encompasses the essential elements of a description of any proposed research. In addition, once completed, your proposal can be submitted to the NIH for funding; this is a great accomplishment to have on your CV. If you would like to submit your proposal to a nationally competitive granting agency that uses a different proposal format, you may use that alternative format with PRIOR approval of your PhD advisory committee.

General Information and Format for the Written Proposal:
You and your mentor are expected to discuss the objectives of the proposal and the concepts to be addressed in your experimental design. However, the advisor, or any other faculty member, shall not review or provide comment on any written draft of the proposal until it is distributed to the PhD advisory committee. The proposal should be your own work, but you may have other students or postdoctoral investigators read the proposal for continuity and clarity before it is distributed to their committee.

Format of the Research Proposal:
The proposal should not exceed 14 double-spaced pages not including the title page. Figures and tables are included in the 14-page total but references are not. Prepare the application using Arial, Helvetica, Palatino Linotype, or Georgia typeface in black font color at 11 points or larger. The margins should be at least 0.5 inches on all sides. Tables and figures should be interpretable on their own. That is, they should have a descriptive title and a brief legend that gives the relevant information. References cited in the proposal should include all the authors (i.e., not Jones, et al) and the full title and inclusive page numbers. Twenty to thirty references should be enough for most proposals. Writing cogent cohesive proposals take a good deal of time, on the order of

one to two months. Clarity should be cherished. The project may be great, even well-conceived, but a poorly written proposal will not convey that and more frequently leads to negative outcomes in exams.

- Specific Aims (2 pages max): The proposal should begin with a brief overview of the research area that indicates what aspects/issues in the field have not yet been fully addressed. This should be followed by a brief description of the overall hypothesis and the research that is being proposed to test the hypothesis. For most research problems two to three specific aims (objectives) can be derived from the overall hypothesis you propose to test. The individual aims should be stated using a single-sentence format. The aims should reflect a logical progression or approach to the solution of the overall research problem. This section of the proposal should describe how the aims test the overall hypothesis.

- Research Strategy (12 pages max): The Research Strategy section is divided up into two subsections, **Significance** and **Approach**. If you have multiple specific aims, you can address Significance and Approach for each specific aim individually, or address Significance collectively and provide separate Approach sections for each specific aim.

- Significance (usually ~1 page). In this section, address the following:
    - Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
    - Describe the scientific premise for the proposed project, including consideration of the strengths and weaknesses of published research or preliminary data crucial to the support of your application.
    - Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
    - Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

- Approach (usually ~11 pages long). For each aim, you will need to describe the background information and preliminary studies that are required to put your aims and experimental design into context. This discussion should be a concise review of published research that is relevant to the proposed research. You should summarize and critically evaluate the evidence from the literature that you used as the basis for your hypothesis. It provides the justification for, or the reasons why, you have selected the specific objectives of the research. The preliminary studies that you describe should be directly relevant to the aims you propose. For

each specific aim, a series of experiments or field exercises should be described that allow this aim to be accomplished. It is useful to keep in mind that **each** specific aim should propose enough experiments that together should lead to a publication. Experiment(s) you propose to conduct during the first year or two should be described in reasonable detail. However, excessive details should be avoided unless they describe a new/novel method or aspects of a method that are central to the proposed research. Methodology for subsequent experiments (i.e., beyond Year 2) can be described more briefly. Students should realize that the direction of future experiments frequently depends on the results obtained in the initial series of experiments. Thus, the student should have thought through alternative approaches that could be discussed in the oral presentation.

- For each aim, address the following:
    - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project.
    - Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Include how the data will be collected, analyzed, and interpreted.
    - Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
    - If the project is in the early stages of development, describe any strategies to establish feasibility, and address the management of any high-risk aspects of the proposed work.
    - Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex.
    - If your study involves human subjects, you are expected to explain how relevant biological variables are important to the proposed experimental design and analyses.

- Proposal Preparation: (Some Helpful Hints and Common Pitfalls)
    - You should start writing your proposal with an outline of your hypothesis, specific aims and methodology. However, as you finish writing you should re-examine, and perhaps rewrite, your specific aims. Check that your specific aims actually test your hypothesis and that the proposed experiments address your specific aims. It is not uncommon to rewrite the abstract and specific aims after the proposal is written, to reflect your changing thoughts about your research goals. Additional questions that

should be considered: 1) What results do you anticipate? 2) What alternative approaches do you envision should you need to change direction on some aspect(s) of the research? 3) How long will it take to accomplish experiment X or Aim X? These are all relevant and very common questions you will get from your committee during the exam.
    - Once your first draft is written ask yourself the following questions:
        - Is the proposal overly ambitious?
        - Are the experiments clearly presented?
        - Is there enough detail in the experimental section, at least for the first year or two of research?
        - Have I provided sufficient explanation (justification) concerning why I proposed these specific aims (objectives)?
        - Is the literature review the proper length? Is it too long?
        - What did my peers think of the proposal? Did they follow/understand the proposal?

- Oral Presentation to your committee: A 15- or 20-minute oral presentation should be prepared to proceed the questioning. This overview presentation should follow the basic outline of the written proposal. The amount of time devoted to each section of the talk (i.e., background; specific aims, etc.) should be similar to the relative extent to which each area was discussed in the written proposal. You should practice the talk **many** times including with lab members other than your mentor, as well as other students. You should practice answering questions. After your proposal is given to the committee, one of the major activities still in your control is the quality of your presentation. It shows if you have not practiced enough. Most of your practicing should be with the slides up on a screen and you with a pointer taking people (or just yourself) through the slides as you present them.

Dissertation & Final Oral Exam/Defense

Form & Content

Your PhD advisory committee will serve as your dissertation examination committee. The Doctor of Philosophy, a research degree, requires documentation of your ability for independent investigation presented as a dissertation based on your original research. This dissertation must be submitted to your examining committee **TWO WEEKS BEFORE THE EXAM**. Your examination committee will assess your written dissertation and examine you principally in the area of your research. Approval by this committee as evidenced by their signatures on the Graduate School warrant represents the final step in awarding of the PhD degree by the program. Please bring copies of the Thesis/

Dissertation Defense Performance Evaluation form with you to your defense (see forms).

An open oral presentation providing an overview of your dissertation should be planned to take 45-50 minutes. Following your presentation, your committee will meet with you in a closed session to ask questions; this examination period normally takes 1-2 hours.

As per Graduate School policy, doctoral degree recipients must acknowledge in the dissertation contributions received from other individuals, including co-authors of published work that appears in the document, such as in designing the research, executing the research, analyzing the data, interpreting the data/ research, or writing, proofing, or copyediting the manuscript. Additionally, the co-advisor/ co-chair role is formalized then by including the following statement in advisor policy: The co-advisor/ co-chair will be designated on dissertation documentation.

Students who entered the program in Fall 2023 or later are required to give a full-length (45-50 minute) public seminar immediately before the closed session defense examination conducted by the student's committee. The campus location of the exit seminar and defense will be determined by the student and their mentor. Students who entered the program before Fall 2023 have the option to hold a public seminar immediately before their defense. A seminar in NS 931 is still required.

Shortly before or after your dissertation, defense students are required to contact the Nutrition and Metabolism Director of Graduate Studies to schedule an exit interview. This meeting provides you with the means to provide feedback on the program. Your experiences and insights are invaluable in helping us improve the Nutrition and Metabolism program for current and future students.

Please note the following when picking your defense date. *You must be enrolled in the semester, including summer, in which you are defending*. At the end of the semester there are dates referred to as the "window period". *If you feel you need to complete your dissertation in the intermediary time between semesters*, please talk to the graduate program manager to ensure your enrollment in the correct semester.

Proposed Standards for Examining Dissertations

Excerpted from the Report by the Ad Hoc Committee on the Future of the Dissertation University of Wisconsin-Madison, April 11, 2016.

An acceptable dissertation completed in partial fulfillment of the PhD degree at the University of Wisconsin-Madison must have the following attributes, as recognized by the student's dissertation committee:

- **Focus**: A dissertation must clearly articulate a research problem or problems, a question or questions. It must specify the limits of the dissertation's investigation concerning theory, knowledge, or practice within the field of study.
- **Appropriateness**: The methods and techniques applied in the execution of the dissertation must be recognized as appropriate to the subject matter and as fitting, original, and/or aesthetically effective.
- **Clarity**: The dissertation should communicate complex ideas in a form and manner that is clear and understandable to area specialists and, as appropriate, to readers beyond the specialty area.
- **Durability**: The description of the research and its major conclusions should be in a durable form (written or otherwise capable of being permanently archived).
- **Novelty**: The dissertation should embody scholarship that makes a substantive contribution to the field of study. The ideas, concepts, designs, and/or performances should move beyond the current boundaries of knowledge within the field of study.
- **Connectedness**: The dissertation should demonstrate a professional level of familiarity with, and understanding of, contemporary work in the field.
- **Quantity**: The dissertation should demonstrate an appropriately comprehensive investigation of the student's research area or artistic form.
- **Documentation and Replicability**: Documentation in the dissertation should be sufficiently thorough and of an appropriate standard and made available to ensure that the dissertation provides a useful starting point or reference for subsequent researchers, scholars and/ or artists.
- **Professionalism**: A dissertation should reflect high ethical and professional standard

Doctoral Degree Checklist: Graduate School Timeline & Deadlines

The Graduate School maintains a list of steps to complete your degree, including deadlines and important things to know as you progress toward graduation: grad.wisc.edu/current-students/doctoral-guide. ***It is very important you review the Graduate School steps.*** In addition to what is posted on this webpage from the Graduate School, you must meet all required steps of the program (outlined below), some of these steps may overlap what is required by the graduate school.

☐ Create a ProQuest account

- ☐ Apply for graduation through your Student Center (Instructions on how to apply for graduation)
- ☐ Warrant—Request from your Graduate Program Coordinator 3 weeks prior to your defense date
- ☐ Dissertation deposit fee—Go to Grad Portal to pay the $90 dissertation deposit fee
- ☐ Complete the Doctoral Exit Surveys (PDFs of survey completion must be entered into your ProQuest Account)
- ☐ Survey of Earned Doctorates (SED) Certificate of Completion
- ☐ Graduate School Doctoral Exit Survey (DES) Certificate of Completion
- ☐ Electronically deposit your dissertation (Please see the Guide to the deposit)
- ☐ Upload an electronic copy of your fully signed warrant
- ☐ Receive email confirmation of successful dissertation deposit form the Graduate School Degree Coordinator

Enrollment Requirements

You are responsible for following Graduate School policies related to course enrollment requirements and limitations:

Adding / Dropping Courses

Auditing Courses

Canceling Enrollment

Continuous Enrollment Requirement for Dissertators

Enrollment Accountability

Minimum Enrollment Requirements

Nutrition and Metabolism non-dissertators should be enrolled in 12 credits in Fall and Spring semesters, and at least 2 credits in Summer semester. The 12-credit enrollment includes NS 991 research credit enrollment. Dissertators should enroll in 3 credits in Fall, Spring, and Summer.

Research in Progress Seminar
Developing strong presentation skills is an essential component of graduate education. Crafting and delivering presentations, along with offering constructive feedback to

peers, fosters a clearer and more cohesive research narrative. This process also helps students communicate their work more effectively. To support this goal, N&M students are required to participate in the NS 731 Research in Progress Seminar each Fall and Spring semester. Students in their 2nd, 3rd, and 4th years must present once annually, choosing either the Fall or Spring semester. Attendance is tracked, and students may miss up to four seminars per semester, for a total of eight allowable absences per academic year.

Academic Exception Petitions

Review by Director of Graduate Studies, Advisor, and Advisory Committee

Academic exceptions are considered on an individual case-by-case basis and should not be considered a precedent. Deviations from normal progress are highly discouraged, but the program recognizes that there are in some cases extenuating academic and personal circumstances. Petitions for course exceptions/substitutions or exceptions to the Satisfactory Progress Expectations (academic or conduct) shall be directed to the Director of Graduate Studies or relevant committee chair (example Curriculum Chair). The following procedures apply to all petitions:

1. The specific requirement/rule/expectation pertinent to the petition must be identified.
2. The student's academic advisor must provide written support for the petition.
3. All course work substitutions and equivalencies will be decided by appropriate area-group faculty or curriculum chair.

More generally, the Director of Graduate Studies, in consultation with the student's advisor and advisory committee, may grant extensions to normal progress requirements for students who face circumstances (similar to tenure extensions) as noted in university regulations, this includes childbirth, adoption, significant responsibilities with respect to elder or dependent care obligations, disability or chronic illness, or circumstances beyond one's personal control. Where warranted, the petition should provide good evidence of plans and ability to return to conformance with the standard and to acceptably complete the program. The normal extension will be one semester; anything beyond this will be granted only in the event of highly extraordinary circumstances. Extensions will be granted formally with a note of explanation to be placed in the student's file.

Satisfactory Academic Progress

Your continuation as a graduate student at UW-Madison is at the discretion of your program, the Graduate School, and your faculty advisor. Any student may be placed on probation or dismissed from the Graduate School for not maintaining satisfactory academic progress, and this can impact your academic standing (detailed below), financial aid, or funding (consult your sources of funding, as applicable). Our program has its own definition of satisfactory academic progress and related procedures that supplement Graduate School policy, as described in this section.

Definition

Information about how the Graduate School determines satisfactory academic progress can be found at this policy page. In addition to the Graduate School's monitoring of satisfactory academic progress, this program regularly reviews the satisfactory academic progress of its students, defined as the following:

Success in the PhD program is determined by satisfactory progress in both coursework and research. Student coursework is determined by program requirements as well as by the student's advisory committee. The committee may require or suggest additional courses that aim to help the student in their research. Satisfactory progress in the lab is determined by the student's thesis advisor and advisory committee. This includes, but is not limited to, adequate working hours in the lab, participating in lab meetings and required training, and keeping detailed laboratory notebooks in the format required by the thesis advisor. If a student is not making satisfactory progress, the thesis advisor will consult with the student's advisory committee and the student may be dismissed from the program.

Individual Development Plans
Nutrition and Metabolism has determined that students are required to complete an Individual Development Plan, and should use their annual progress report meetings as the venue for sharing with their advisory committee as much information about their IDPs as they are comfortable sharing. Thesis advisors can use this information to demonstrate their compliance with this NIH requirement. Templates, guidelines, and other resources for IDP development and maintenance are available at www.grad.wisc.edu/pd/idp

Nutrition and Metabolism students should use the IDP Reporting System to submit IDP completion evidence to the graduate program manager. The reporting system does not

require you to submit the content of your IDP; rather, it helps you and your mentor log actions you take concerning the IDP. Your PI and graduate program manager will have access to viewing the dates of these actions, to see that you are actively working on your IDP.

Not Meeting Academic Expectations

Failure to meet the program's academic or conduct expectations can result in disciplinary action including immediate dismissal from the program. If a student is not making satisfactory progress in regard to academic or conduct expectations, the advisor will consult with the student's advisory committee to determine if disciplinary action or dismissal is recommended.

Student progress will be reviewed through coursework or annual meetings at Annual Committee Progress Meetings. If the advisor and advisory committee find that at the Yearly Meeting or at any other time that a student has failed to achieve satisfactory progress with academic or conduct expectations the student may be dismissed from the program. Students placed on probation will be placed on probation for one semester and will be reviewed by the N&M Executive Committee following the probationary semester. Students placed on probation may be dismissed or allowed to continue based upon review of progress during the probationary semester.

The status of a student can be one of three options:

Good standing (progressing according to standards; any funding guarantee remains in place).

Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status.

Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

A semester GPA below 3.0 will result in the student being placed on academic probation by the Graduate School. If a semester GPA of 3.0 is not attained during the subsequent semester of full-time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School. A cumulative GPA of 3.0 is required to graduate.

Dismissal Policy

The Graduate School has specific policies around academic misconduct and non-academic misconduct. If the major advisor feels a student is not making satisfactory academic or research progress, they should notify the Director of Graduate Studies (**DGS**) and the Graduate Program Manager (**GPM**) to discuss appropriate next steps according to the following program policy.

All students - whether admitted directly or through rotations - must be notified in writing that their progress is unsatisfactory, and must be given the opportunity to course-correct with a written Performance Improvement Plan (PIP). The PIP must be developed by the student's advisory committee and include:

- Specific concern(s) of the major advisor and/or advisory committee members
- Observations and details from previous discussions (i.e., annual advisory committee summaries)
- Specific and measurable goals to improve the area(s) of concern
- Reasonable and achievable timelines for each stated goal, including a schedule of checkpoints to evaluate progress made toward each goal
- List of resources available to achieve goals
- Explicitly stated consequences for failure to achieve progress by the specified deadline

Prior to implementation, a draft written copy of the PIP must be given to the DGS and GPM who will provide feedback regarding any suggested changes in the document. At the end of the PIP timeline, the advisory committee and student will meet to decide whether satisfactory progress has been made. The DGS and GPM must be notified in writing whether the committee chooses to keep or dismiss the student from the N&M program.

Personal Conduct Expectations

Professional Conduct

The Office of Student Conduct and Community Standards maintains detailed guidance on student rights and responsibilities related to learning in a community that is safe and fosters integrity and accountability. You are responsible for keeping aware of their policies and procedures, found at the following page: conduct.students.wisc.edu

This program sees the following qualities as evidence of professional behavior by students:

- Shows respect for a diversity of opinions, perspectives, and cultures
- Accurately represents their work and acknowledges the contributions of others
- Aims to gain knowledge and contributes to the knowledge base of others
- Strives to incorporate and practice disciplinary ideals in their daily lives
- Demonstrates integrity; provides accurate information in resumes/CVs
- Challenges themselves in academic pursuits
- Follows research ethics including IRB protocols, documentation of research activities, protection of subject/client confidentiality, and follows HIPAA regulations
- Demonstrates commitment to an unbiased interpretation of data as well as related academic and professional endeavors
- Follows through and pulls their weight in group activities
- Understands where collaboration among students is or is not allowed
- Does not plagiarize others or past work (self-plagiarism), cheat, or purposefully undermine the work of others
- Avoids conflicts of interest
- Interacts with peers, faculty, staff, and those they encounter in their professional capacity in a manner that is respectful and considerate
- Attends and is prepared for all scheduled meetings and classes, and honors agreed upon work schedules
- Communicates openly and offers prompt responses to inquiries
- Is careful in their use of available equipment, technology and resources
- Offers criticism in a constructive manner
- Welcomes feedback
- Is actively prepared for class and ready for questions and answers
- Notifies instructors at least one day in advance of a planned absence and takes responsibility for finding out what they missed
- Recognizes that the pursuit of knowledge is a continuous process and seeks guidance (when needed) as they adapt to change

(Adapted from MDTP)

Academic Misconduct

Academic misconduct is governed by state law, UW System Administration Code Chapter 14. For further information on this law, what constitutes academic misconduct, and procedures related to academic misconduct, see:

The Graduate School

Academic Policies & Procedures: Misconduct, Academic
grad.wisc.edu/documents/misconduct-academic

Office of Student Conduct and Community Standards

Academic Misconduct Website
conduct.students.wisc.edu/academic-misconduct

Academic Misconduct Flowchart
https://conduct.students.wisc.edu/wp-content/uploads/sites/274/2023/01/Academic_Integrity_BuckSlip_20231024_1.jpg

Non-Academic Misconduct

Non-academic misconduct is governed by state law, UW System Administration Code Chapters 17 and 18. For further information on these laws, what constitutes non-academic misconduct, and procedures related to non-academic misconduct, see:

The Graduate School

Academic Policies & Procedures: Misconduct, Non-Academic
grad.wisc.edu/documents/misconduct-nonacademic

Office for Student Conduct and Community Standards

Non-Academic Misconduct Website
conduct.students.wisc.edu/nonacademic-misconduct

University of Wisconsin System (UWS)

Chapter 17: Student Non-Academic Disciplinary Procedures
docs.legis.wisconsin.gov/code/admin_code/uws/17

Chapter 18: Conduct on University Lands
docs.legis.wisconsin.gov/code/admin_code/uws/18

Research Misconduct

Graduate students are held to the same standards of responsible conduct of research as faculty and staff. Further information about these standards and related policies and procedures can be found at:

The Graduate School

Academic Policies & Procedures: Responsible Conduct of Research
grad.wisc.edu/documents/responsible-conduct-of-research

Office of the Vice Chancellor for Research and Graduate Education

Research Policies
research.wisc.edu/compliance-policy

Hostile and Intimidating Behavior (Bullying)

Hostile and intimidating behavior (HIB), sometimes referred to as "bullying," is prohibited by university policy applicable to faculty, academic staff, and university staff. For further definition, policy, and procedures related to HIB see: hr.wisc.edu/hib. Students who feel they have been subject to HIB are encouraged to review the informal and formal options on the "Addressing HIB" tab of this website.

Grievance Process

Each college or program on campus has a grievance process that students can use to address other concerns regarding their experience in the program. This program's grievance process can be found detailed at:
https://guide.wisc.edu/graduate/nutritional-sciences/nutritional-sciences-phd/#policiestext

Process and Sanctions for Violations of Conduct Standards

The Nutrition and Metabolism Executive Committee will evaluate disciplinary actions and/ or dismissal cases when required. Within boundaries set by the faculty, the Nutrition and Metabolism executive committee is authorized to take account of individual circumstances and problems, and to grant extensions of deadlines and waivers of requirements.

Disciplinary Actions

- Written reprimand
- Denial of specified privilege(s)
- Imposition of reasonable terms and conditions on continued student status
- Removal of funding
- Probation
- Restitution
- Removal of the student from the course(s)in progress
- Failure to promote
- Withdrawal of an offer of admission
- Placement on Leave of Absence for a determined amount of time
- Suspension from the program for up to one year with the stipulation that remedial activities may be prescribed as a condition of later readmission. Students who meet the readmission condition must apply for readmission and the student will be admitted only on a space available basis. See the Graduate School Academic Policies & Procedures: Readmission to Graduate School: https://grad.wisc.edu/documents/readmission/
- Suspension from the program. The suspensions may range from one semester to four years.
- Dismissal from the program
- Denial of a degree

In addition to the program's disciplinary actions, the Dean of Students Office may also have grounds to issue one or more of the following:

- Reprimand
- Probation
- Suspension
- Expulsion
- Restitution
- A zero or failing grade on an assignment/exam
- A lower grade or failure in the course

- Removal from course
- Enrollment restrictions in a course/program
- Conditions/terms of continuing as a student

Incident Reporting (Hate, Bias, Sexual Assault, Hazing, Students of Concern, Bullying)

The Dean of Students Office maintains a portal to report incidents of hate, bias, sexual assault, hazing, dating/domestic violence, stalking, missing students, and students displaying other concerning behaviors at UW-Madison:

Dean of Students Incident Reporting
doso.students.wisc.edu/report-an-issue

As noted above in "Personal Conduct Expectations," students who feel they have been subject to hostile and/or intimidating behavior (i.e., bullying) are encouraged to review the informal and formal options for addressing this behavior (including filing complaints when desired) at:

Human Resources Hostile and Intimidating Behavior Website
hr.wisc.edu/hib

Funding, Employment, and Finances

"Funding" is a term used to describe university employment or support to cover some or all of your costs of graduate education. It varies in kind, amount, and level of guarantee.

Nutrition and Metabolism PhD and MS students are provided with a competitive stipend in addition to tuition remission. The stipend is a 5-year guarantee contingent upon satisfactory academic and research progress. Application to the program is also the application for funding and tuition remission.

Students are required to pay segregated fees each semester. Students may view a breakdown of the segregated fee expenses here. The due date for segregated and other fee payments is the first Friday after the third assistant paycheck of the term (or the day of the third paycheck if it falls on a Friday).

Nutrition and Metabolism PhD and MS students are qualified for the stipend, tuition remission, and health insurance through their Research Assistant appointment. Other common methods of funding are through Teaching Assistantship, Traineeship, and Fellowships.

The Metabolism and Nutrition Training Program (MANTP) is an NIH-Funded T32 training program that supports students studying nutrition and digestive diseases. MANTP provides a two-year funding position as a trainee. More information on MANTP can be found here: https://nutrisci.wisc.edu/nih-training-grant/trainingprogram/

A number of Nutrition and Metabolism students also qualified for assorted fellowships. https://grad.wisc.edu/funding/fellowships/

SciMed GRS also provides funding and community to enhance the experiences of underrepresented graduate students in the biological sciences. More information about SciMed can be found here: https://scimedgrs.wisc.edu/

The Graduate School maintains policies related to graduate student funding/employment:

Maximum Levels of Appointments
grad.wisc.edu/documents/maximum-levels-of-appointments

Concurrent Appointments for Fellows/Trainees
grad.wisc.edu/documents/concurrent-appointments

Enrollment Requirements for Graduate Assistants
policy.wisc.edu/library/UW-1208

Eligibility for Summer RA, TA, PA, and LSA Appointments
policy.wisc.edu/library/UW-5089

Finding Alternative Funding

Campus-Wide and External Sources

While Nutrition and Metabolism provides a 5-year funding guarantee contingent upon academic and research progress, the Graduate School provides a comprehensive

overview of the funding process on campus as well as descriptions of the types of funding available, sources of funding, minimum stipend rates and benefits, and links to applicable human resources policies (e.g. GAPP) at:

Graduate School: Funding and Financial Aid
grad.wisc.edu/funding

External Fellowship Database
grad.wisc.edu/funding/external-fellowship-database

UW-Madison Libraries Grants Information Collection
library.wisc.edu/memorial/collections/grants-information-collection

Additional Policies & Resources

Graduate School Policy: Residence for Tuition Purposes
grad.wisc.edu/documents/residence-for-tuition-purposes

Employee Disability Resources
employeedisabilities.wisc.edu

Graduate Assistantship Policies and Procedures (GAPP)
hr.wisc.edu/policies/gapp

Professional Development

When you participate in professional development, you build skills needed to succeed academically and thrive in your career. The following are professional development activities that we recommend for your consideration. Required professional development will be detailed in "Degree Requirements" above.

On Campus

The Graduate School develops and curates a wide variety of resources for professional development, including a tool to assess your skills, set goals, and create a plan with recommended activities on campus (e.g., the popular "Individual Development Plan" or IDP) as well as programming to help you explore careers, prepare for a job search, build

your network and learn from alumni, manage projects, communicate about your research, and much more.

DiscoverPD helps master's and doctoral students at UW-Madison advance their academic and professional goals with customized recommendations based on a skills self-assessment. The 400+ professional development recommendations available in the DiscoverPD database are available in a range of formats to best meet your diverse needs, including in-person, virtual, asynchronous, and synchronous opportunities. All of this can be found at:

Professional Development from the Graduate School
grad.wisc.edu/professional-development

The Graduate School communicates professional development opportunities through an e-newsletter, *GradConnections*, that all graduate students receive at their wisc.edu email. Graduate students in traditional graduate degree programs receive the newsletter weekly during the academic year and every other week in the summer. Graduate students in online degree programs receive the newsletter every other week during the academic year and monthly during the summer.

Nutrition and Metabolism Mentor-Mentee Guidelines

Effective PhD training in the Nutrition and Metabolism program relies on a strong relationship between the faculty mentor and the PhD student. Both the mentor and the student enter this relationship with expectations of each other and it is important to ensure that there is a shared understanding and agreement of those expectations. This document lays out some common commitments that we expect faculty members and students to make to each other. It is a fluid document in that we expect some changes in expectations to occur as a student progresses through their PhD training. If adopted, this document should be reviewed by the student and mentor at least once a year to ensure that they are working together effectively.

Expectations of the PhD student

- I acknowledge that I have the primary responsibility for the successful attainment of my degree. This includes my commitment to focus my time and efforts on classes and in the laboratory. I will maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- I recognize that I have the primary responsibility for my professional development and commitment to life-long learning. I will stay abreast of the latest developments in my area of research by reading the literature and attending relevant seminars and scientific meetings. I will actively seek out opportunities

outside of the classroom (e.g. professional development seminars, workshops in scientific writing or grant writing, oral communication skills, teaching, etc.) to help meet my career goals.
- I will develop a timeline to achieve my educational and research goals and review it annually with my mentor.
- I will maintain detailed, organized, accurate, and timely laboratory records in the format requested by my mentor. I will regularly backup computer files to avoid loss of valuable data.
- I will be honest and respect all ethical standards when I conduct my research and engage in scholarly activity. This includes compliance with all institutional and federal regulations for human and animal research as well as those regarding copyright infringement, permissions, plagiarism, etc.
- I will strive to be increasingly independent in my training activities including designing and conducting experiments, writing grant applications and publications, and mentoring undergraduate or less experienced graduate students.
- I will seek regular feedback on my performance and challenges I face through open and timely discussions with my mentor. I will be accepting of advice and constructive criticism and recognize that this feedback is intended to improve my professional skills.
- I will be knowledgeable and responsible for complying with the policies, deadlines, and requirements of the Nutrition and Metabolism program, the graduate school, and the university.
- I will treat others with respect and foster a positive workplace climate in my research lab, program, and department.

<u>Expectations of the Faculty Mentor(s)</u>

- I acknowledge that it is my responsibility to facilitate the training and professional development of the PhD student to the best of my abilities. I will work closely with this student to develop a program plan that best prepares them to achieve their PhD training goals.
- I will maintain a relationship with the student that is based on trust and mutual respect.
- I recognize that open communication and periodic formal performance reviews will ensure that the expectations of both parties are met.
- I will foster an increasing level of independence and responsibility as the student progresses through their PhD training.
- I will promote all ethical standards for conducting research and engaging in scholarly activity. This includes compliance with all institutional and federal

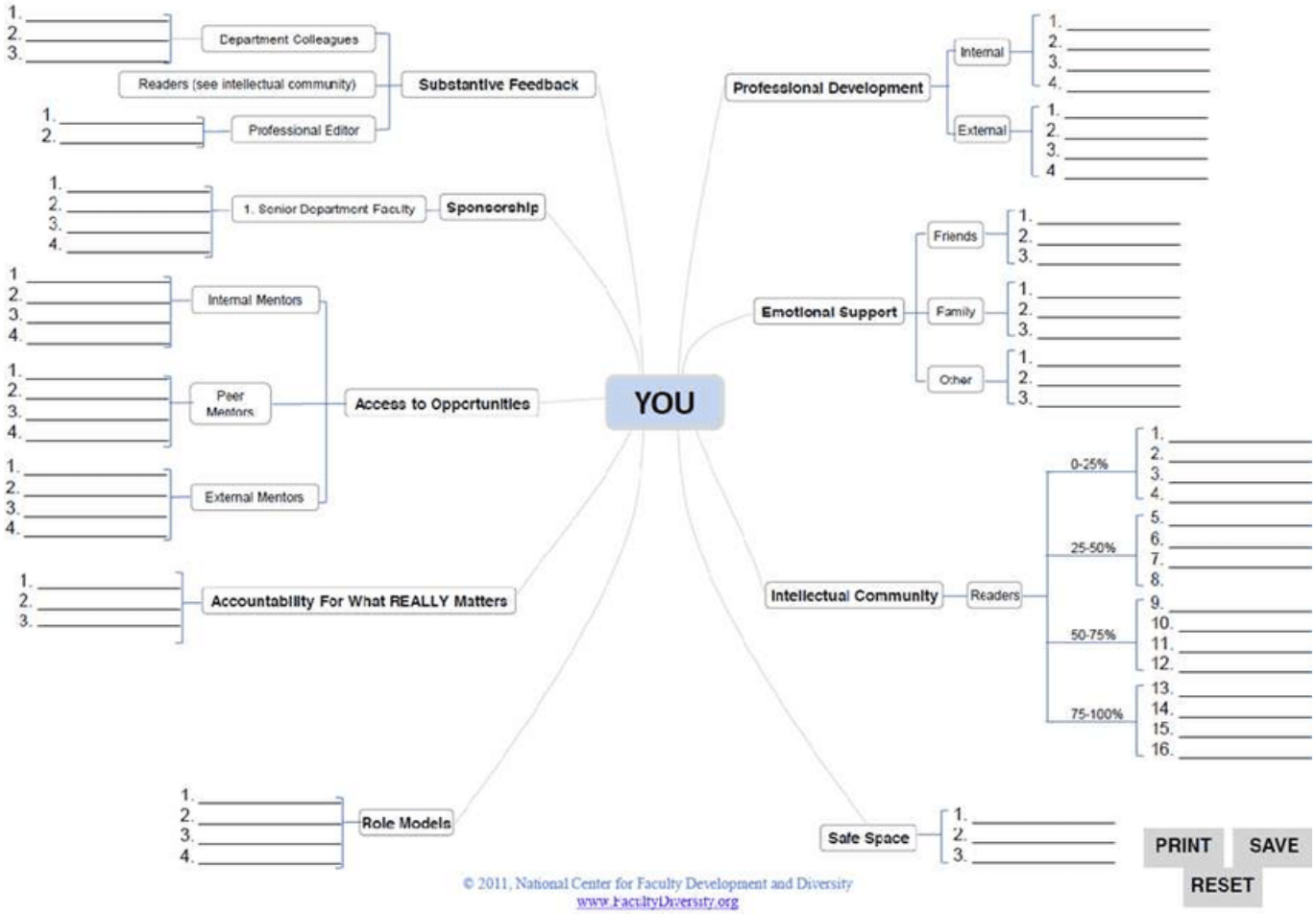
regulations for human and animal research as well as responsibility for copyright, permissions, plagiarism, etc.
- I will clearly define expectations of conduct within my research team and make myself available to discuss climate or ethical concerns as they arise.
- I will commit to be a supportive colleague as the student transitions to the next stage in their career and, to the extent possible, throughout their professional life. I recognize that the role of mentor continues after formal training ends.
- I will encourage participation in professional development and networking opportunities.
- I will treat others with respect and foster a positive workplace climate in my research lab, program, and department.

Items for Discussion

The mentor and student should discuss the items below and any other issues in order to reach a shared understanding of their relationship. The mentee should then summarize the final decisions and have the agreement signed and dated by the parties listed.

- How often will we meet? When and where will our meetings take place? Who will be responsible for establishing the agenda?
- What is the preferred method of communication between meetings? How quickly can a response to questions be expected?
- How much lead time do the participants need to review materials prior to discussion?
- What are the policies for work hours, sick time, and vacations?
- What are the policies for manuscript authorship, research presentations, and ownership of data?
- What format and content is expected in lab notebooks and other data archiving systems?
- What additional expectations does the mentor have of the student?
- What additional expectations does the student have of the mentor?

Mentorship Map



N&M PhD Timeline and Checklist

1st semester

- ☐ Attend new student orientation
- ☐ Register for first semester courses
- ☐ Obtain department approval regarding any background deficiencies
- ☐ Participate in rotations/advisor selection (not direct admits)

2nd semester

- ☐ Continue coursework
- ☐ Begin research
- ☐ Form advisory committee (advisor + 2 sufficient at this time)
- ☐ Prepare initial IDP (update annually)
- ☐ Have 1st meeting with advisory committee (course plan approval, introduce research topic)

2nd year

- ☐ Finish coursework
- ☐ Continue research
- ☐ Complete TA or learning internship requirement (if not completed by prior experience)
- ☐ Finish assembling advisory committee
- ☐ Request warrant 3 weeks prior to preliminary exam
- ☐ Hold preliminary exam
- ☐ Return signed warrant to Graduate Program Manager

3rd year

- ☐ Continue research
- ☐ Hold annual committee meeting

4th year

- ☐ Continue research
- ☐ Hold annual committee meeting
- ☐ Present NS 931 seminar by end of 4th year

5th year

- ☐ Complete research
- ☐ Request defense warrant 3 weeks before defense
- ☐ Submit dissertation to committee (2 weeks before defense)
- ☐ Defend dissertation
- ☐ Return signed defense warrant to Graduate Program Manager
- ☐ Deposit defense