Interdepartmental
TOXICOLOGY
GRADUATE PROGRAM
HANDBOOK

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This handbook is a supplement to the ISU Graduate Student Handbook

http://www.grad-college.iastate.edu/common/handbook/

ISU Graduate Handbook policy summary:

http://www.grad-college.iastate.edu/common/policies/index.php
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Other Sites of Interest

Academic Web Sites
Toxicology Graduate Student Organization (TGSO)
Iowa Center for Advanced Neurotoxicology (ICAN)

Attendance at Toxicology program seminars.

Toxicology 689 Seminar: Students are required to sign up for and attend Tox 689 (R) each fall and spring semester. To successfully pass this course, the student must attend 80% of the seminars listed for the semester. If a student attends a national conference or meeting during the semester, they may request that attendance at the conference be used to meet one (1) missed seminar during the same semester.
INTRODUCTION

The TOXICOLOGY MAJOR

Toxicology research has been ongoing at Iowa State University for more than four decades. Continued interest in toxicology and the national recognition gained by several departments of the Colleges of Agriculture, Veterinary Medicine, Liberal Arts and Sciences, and Family and Consumer Sciences have resulted in the development of a graduate interdepartmental major in toxicology. Graduate degrees are offered at the master of science (MS) and doctor of philosophy (Ph.D.) levels.

The Interdepartmental Toxicology major at Iowa State University includes 34 faculty from 13 departments: Agricultural Biosystems and Engineering Science (ABE); Agronomy (AGRON), Animal Science (ANS), Natural Resource Ecology and Management (NREM); Roy J. Carver Department of Biochemistry, Biophysics and Molecular Biology (BBMB); Biomedical Sciences (BMS); Food Sciences and Human Nutrition (FSHN); Entomology (ENT); Physics & Astronomy, Plant Pathology and Microbiology (PLP); Veterinary Diagnostic and Production Animal Medicine (VDPAM); Veterinary Pathology (VPTH); and Genetics, Development and Cell Biology (GDCB).

Faculty expertise and laboratory facilities are available in the areas of: agricultural toxicology, development of vaccines for AIDS and other diseases, analytical chemistry, aquatic toxicology, behavioral toxicology, biosecurity and food safety, cancer and nutrition, cellular toxicology, drug recognition and antibiotic resistance, environmental and environmental fate toxicology, livestock toxicity, mycotoxins, neurotoxicology, odors, pesticide toxicology, reproductive toxicology, and veterinary toxicology.

The strength of the INTERDEPARTMENTAL TOXICOLOGY program lies in the combined expertise of its diverse faculty. This expertise is central to our goals, which are to provide interdisciplinary education and training in toxicology, while stimulating excellent toxicology research.

This Toxicology Graduate Student handbook is written as a supplement to the ISU Graduate Student handbook found at this site:

http://www.grad-college.iastate.edu/common/handbook/

Prerequisites to major in Graduate Toxicology

Prerequisites for entrance into the graduate toxicology major include an undergraduate degree in a relevant area of study; for example, chemical engineering, biology, biochemistry, chemistry, ecology, entomology, food science and technology, microbiology, nutritional
science, zoology or veterinary medicine. Minimum undergraduate coursework should include
the following or equivalent: 1 year of college mathematics, including calculus; 1 year of
inorganic chemistry; 2 years of biological sciences including 1 course in physiology.

Other courses that are considered desirable in undergraduate preparation include:
biochemistry, physical chemistry, qualitative analysis, and some specialized courses such as
histology or advanced physiology.

Degrees offered

Interdepartmental Toxicology offers coursework and research experiences leading to
the degrees of Master of Science and Doctor of Philosophy. Because toxicology is a
research-based discipline, non-thesis Master of Science degrees are not offered.

The degree which a student may pursue in Toxicology (M.S. or Ph.D.) is normally
determined and specified at the time of the student’s admission to the program. Although a
prior M.S. is not required for admission to the Ph.D. program, criteria for admission to the
Ph.D. program are more stringent than to the M.S. program and excellent performance in a
prior M.S. program is helpful.

Career Opportunities

The widespread use of chemicals in the environment and the presence of natural
toxins pose a continuous challenge to toxicologists. Toxicology is a dynamic and growing
science with varied career opportunities in industry, government, academia, and private
consulting firms.

The Society of Toxicology (SOT) http://www.toxicology.org describes career
opportunities as follows:

“Challenges
Wise use of chemicals is an essential component of the high standard of living we
enjoy. The challenge to toxicologists is to ensure that we are not endangering our
health or the environment with the products and by-products of modern and
comfortable living. As a career, toxicology provides the excitement of science and
research while also contributing to the well-being of current and future generations.
Few other careers offer such exciting and socially important challenges as protecting
public health and the environment.

“Opportunities
With the increase in our health consciousness, as well as concern for our environment,
a wide and growing variety of career opportunities exist in toxicology. Toxicologists
participate in basic research using the most advanced techniques in molecular biology,
analytical chemistry and biomedical sciences; work with chemical, pharmaceutical and
many other industries to test and ensure that their products and workplaces are safe,
and to evaluate the implications of new research data; work for local and federal
governments to develop and enforce laws to ensure that chemicals are produced,
used and disposed of safely; work in academic institutions to teach others about the
safe use of chemicals and to train future toxicologists.”
**Toxicology 689 Seminar:** Students are required to sign up for and attend Tox 689 (R) each fall and spring semester. To successfully pass this course, the student must attend 80% of the seminars listed for the semester. If a student attends a national conference or meeting during the semester, they may request that attendance at the conference be used to meet one (1) missed seminar during the same semester.

**Master’s Degree**

**YOUR FIRST YEAR**

**FORMS:**

- **Home Department for Students Admitted to Interdepartmental Majors:** [http://www.grad-college.iastate.edu/common/handbook/](http://www.grad-college.iastate.edu/common/handbook/)
- **Committee Appointment Form:** [http://www.grad-college.iastate.edu/common/handbook/](http://www.grad-college.iastate.edu/common/handbook/)
  ◆ we highly recommend that you complete this form by the end of your first semester in graduate training
- **Program of Study and POS Supplement Form:** [http://www.grad-college.iastate.edu/common/handbook/](http://www.grad-college.iastate.edu/common/handbook/)
  ◆ we highly recommend that you complete this form by the end of your first semester in graduate training
- **ADD/DROP Slip** (Request for Schedule Change or Restriction Waiver)
  For changing, adding, or dropping courses after the semester has started. These yellow-half sheet multi-copy forms can be obtained from the bulletin board outside of 2102 Molecular Biology
- **Letter of Intent:** Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.
- **Health Insurance:** Coverage period is August to August. Enroll on-line through ACCESS PLUS. Do not give up your present health insurance until you know you are covered. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here: [http://www.hrs.iastate.edu/sship/](http://www.hrs.iastate.edu/sship/)
  Enroll in TOX 689 Fall and Spring Semesters

For M.S. students, it is essential that you complete your Committee and Program of Study forms during your first year (and possibly by the end of your first semester) of graduate study. Why? Your POS is a contract between you and your graduate committee. Generally you have 2 or 2.5 years to complete your coursework. Setting up your POS ensures that you have thought out how you plan to complete all the appropriate courses within that time frame. Some courses are only offered in the fall and some only in the spring and some every other fall or spring.

Most M.S. students will begin their graduate training without rotations. If you are participating in rotations, read information about rotations in the Ph.D. Degree Section. Most M.S. students on rotations are funded for only one semester and will have to make decisions regarding their major professor by the end of their funding resources as noted in the letter of
intent. With only a semester’s funding, the student will only have time for two full rotations or 3 shorter rotations.

_________ Committee form

_________ Program Of Study (POS) form

_________ Program Of Study Supplement form (for what doesn’t fit on the POS form)

Forms for setting up your Committee and POS forms can be found on the ISU Graduate College Forms page: http://www.grad-college.iastate.edu/common/forms/student_forms.php

And then add any additional courses required by your POS committee. A total of 32 credits is required and at least 3 credits must be research.

_________ Forms to establish a committee and to seek approval of a program of study must be submitted to the Graduate College at least one academic term before the student may request to schedule a final oral examination.

_________ Attend seminars. Stay and listen to the questions other people ask.

YOUR SECOND YEAR and subsequent semesters

FORMS:  
TOXICOLOGY Checklist (due October 1)  
Professional Advancement Grant (PAGs): Travel to symposia and and conferences (attend, take a poster, present).
http://www.grad-college.iastate.edu/gpss/PAG/index.html
◆these should be turned into your Department. Check with Linda regarding funding from TOX; usually $200 but all items due on your TOX checklist must be met before funding is provided.

Diploma Slip (Application for Graduation):
http://www.grad-college.iastate.edu/common/forms/student_forms.php

Request to Change Committee Appointment Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php

Modifications to the POS Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php

◆Courses become ineligible for use on a program of study if they were taken more than five years before the degree will be awarded. [“Overage courses”]

Request for Final Oral Examination.
http://www.grad-college.iastate.edu/common/forms/student_forms.php

Thesis Checklist (thesis is submitted on-line) and deadlines:
http://www.grad-college.iastate.edu/current/thesis/ 
http://www.grad-college.iastate.edu/current/thesis/checklist/

in journal format:

◆International Students should meet with the International Students Office the semester before they plan to graduate to discuss options. Several months are needed for paperwork to be processed for OPT and other opportunities

Masters Student on Ph.D. Track in Same Department for students
planning to stay and complete a Ph.D. following their M.S. degree: 
http://www.grad-college.iastate.edu/common/forms/student_forms.php

**Letter of Intent:** Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.

**Health Insurance:** Coverage period is August to August. Enroll on-line through ACCESS PLUS. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here: 
http://www.hrs.iastate.edu/sship/
Enroll in TOX 689 Fall and Spring Semesters

During your second year you should complete all required coursework, spend a good deal of time in the lab, and begin writing both for publication and your thesis. Have questions? This is what your committee is for, to assist you towards your goal. READ. Be thinking about what you want to do next after completion of your M.S. degree.

_______ What format should my thesis be in? Toxicology thesis must be in **Journal Paper Format** unless prior approval from the Toxicology Chair is obtained before you begin writing. With the approval of your major professor and POS Committee, you may include manuscripts published in, accepted by, submitted to, and/or prepared for submission to scholarly journals and proceedings (or modified from those versions). As in a traditional thesis, the collection of papers should address related topics. You must be a primary author of the papers (i.e., a person principally involved in the data selection or collection, the data analysis or interpretation, and the writing of the papers). Information on this format can be found here: 

_______ What are the steps in writing my thesis. It is done on-line. The thesis checklist can be found here: http://www.grad-college.iastate.edu/current/thesis/

_______ At the end of the semester before the semester I graduate, what are the steps I need to do and when? Here is the site with deadlines: 
http://www.grad-college.iastate.edu/deadlines/

_______ The Graduate College must be notified in advance of master’s students who intend to participate in the final oral examination remotely. On-line forms are available for these notifications and approval requests.  
http://www.grad-college.iastate.edu/common/forms/student_forms.php

_______ All committee members must participate in final oral examinations. Committees should make all reasonable efforts to meet in person, though one committee member may participate from a distance if the student is present on campus with the remainder of the committee. The Graduate College must be notified before the examination if a committee member must participate from a distance. That notification should include the name of the committee member designated to sign forms on behalf of the remote participant. 
http://www.grad-college.iastate.edu/common/forms/student_forms.php
When do I file a Diploma slip? File an Application for Graduation (Diploma Slip) for the semester you plan to defend your thesis and to graduate: [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

I am just about ready to leave, what's next? Talk with your major professor, committee members, and peers regarding job or continuing education opportunities available upon completion of your degree.

Payroll and Tuition. It is always best to talk with the Graduate College if you plan to leave and go off payroll during the semester rather than at the end of the semester. Things to take into consideration include:

- To qualify for in-state tuition rates a student must be on an assistantship for 3 months during the fall or spring terms and 6 weeks in the summer, otherwise you will be charged out of state tuition when registering for 5 or more credits.
- You can be paid, while not registered, through the first week of the semester.
- You must be registered for the semester you graduate.
- You can defend between semesters as long as you are registered for the following semester, but you can then drop your course before the semester starts and avoid paying tuition for that semester.
- You will be charged for a minimum of two credits even if you register for one credit.
- If you are on an assistantship for 3 months of the semester (6 weeks for summer session) you will be charged as a full-time student even if you do not register full-time.

International students should talk with the International Students Office if they do not register as full-time students.

Notification of Resignation if you are leaving the University. Please fill out a notification of resignation form and turn it into your supervisor when you know your last date on payroll: [http://www.hrs.iastate.edu/hrs/files/notice_of_resignation.doc](http://www.hrs.iastate.edu/hrs/files/notice_of_resignation.doc)  Students may also download an Employee Separation Checklist found here: [http://www.hrs.iastate.edu/hrs/node/48](http://www.hrs.iastate.edu/hrs/node/48)  This form will provide reminders about items such as the turn-in of keys, paying outstanding bills, returning car tags, and where to have W-2s mailed.

Health Insurance. For information on coverage: Student Health Insurance, 0570 Beardshear, 515-294-2394  [http://www.hrs.iastate.edu/sship/homepage.html](http://www.hrs.iastate.edu/sship/homepage.html)  The best source for all things dealing with health insurance is this office.

Optional Practical Training (OPT) for International Students. Contact International Students the semester before you graduate. It takes 3 to 4 months to get OPT approved and your application must reach the Immigration Service Center in Nebraska BEFORE the last day of the semester.  [http://www.isso.iastate.edu/Current_Students/](http://www.isso.iastate.edu/Current_Students/)

Attend seminars. Listen to the questions other people ask. Ask questions yourself.

The ISU Graduate College provides a list of publications to assist you including: Graduate Catalog, Graduate College Handbook, Thesis/Dissertation Website, and Teaching Assistant Handbook: [http://www.grad-college.iastate.edu/](http://www.grad-college.iastate.edu/)
It would be really useful for you to familiarize yourself with the ISU Graduate College homepage. It contains information on deadlines, forms, publications, campus/community life, degree requirements, graduate student well-being, and student services for graduate students. http://www.grad-college.iastate.edu/
Ph.D. Degree

YOUR FIRST YEAR

FORMS: Home Department for Students Admitted to Interdepartmental Majors: http://www.grad-college.iastate.edu/common/handbook/
Committee Appointment Form: http://www.grad-college.iastate.edu/common/handbook/
◆ recommend this form be completed by the end of your first year in graduate study
Program of Study and POS Supplement Form: http://www.grad-college.iastate.edu/common/handbook/
◆ recommend this form be completed by the end of your first year in your major professor’s lab
ADD/DROP Slip (Request for Schedule Change or Restriction Waiver)
For changing, adding, or dropping courses after the semester has started. These yellow-half sheet multi-copy forms can be obtained from the bulletin board outside of 2102 Molecular Biology
Letter of Intent: Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.
Health Insurance: Coverage period is August to August. Enroll on-line through ACCESS PLUS. Do not give up your present health insurance until you know you are covered. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here: http://www.hrs.iastate.edu/sship/
Enroll in TOX 689 Fall and Spring semesters.

For students who are joining labs without rotations, speak with your major professor about expectations for being in the lab and taking coursework. READ something everyday that pertains to your research even if it is just the abstract of a paper.

Rotation Information

Students participating in rotations who begin the fall semester are expected to identify a major professor no later than April 1, preferably by March 15.

Before arriving at Iowa State, think about who you might like to do rotations with. The general schedule for rotations are two in the fall and one in the spring completed by March 1. Plan to begin your first rotation by Wednesday of the first week of classes. Generally rotations will run the end of August to mid October, mid October to mid December, and January 2 to March 1.

Who can I do rotations with? You may contact any Toxicology faculty member regarding rotations. You are now a graduate student and it will be up to you to contact faculty in whose
research you are interested. We recommend you speak with at least 3 to 5 faculty before deciding on your first rotation. We will provide guidelines, but ultimately you are responsible for contacting and setting up your own rotations. Faculty funding resources change throughout the year so do contact those genetics faculty in whose research you are interested.

Can I do rotations with faculty outside of toxicology? Students who are awarded ISU Biotechnology Fellowships can participate in rotations with faculty inside and outside of toxicology. All other students should talk with Linda if they decide they would like to rotate with an ISU faculty member outside of Toxicology. Linda will contact that faculty member with information on the student’s funding and TOX’s expectations as regards the student if an TOX student rotates in that lab.

I am on a Fellowship; does this limit who I can rotate with? Speak with your advisor regarding who you may do rotations with if you are on a Fellowship. USDA National Needs Fellows generally have a limited number of faculty whom they can rotate with. IGERT Fellows are expected to rotate with faculty in both the molecular sciences and in the statistical or mathematical sciences within labs that have computational based projects.

Paid vacation and holidays during rotations. Information will be provided during Orientation each fall regarding vacation days and holidays. Rotation students who wish to take any additional time other than those indicated during Orientation must have prior approval by the IG Chair and will likely not be paid for that time.

Funding: All Ph.D. students on standard TOX assistantships are funded until June 30, 2009, by the Iowa State University Graduate College (students on Fellowships have varied lengths and sources of funding, contact Linda lmwild@iastate.edu if you have any questions). It is expected beginning July 1 that your major professor will provide funding; thus it is very important that you make your decision regarding your lab no later than April 1, 2009. At the time you have made your decision, students will process a “Home Department for Students Admitted to Interdepartmental Majors” http://www.grad-college.iastate.edu/forms/forms.html. The home department of your major professor must review your application to approve your participation (you are still a toxicology major, but there is a University requirement that you belong to the home department of your major professor). After review of your application and approval, the Department will process payroll for you beginning June 30, 2009. To insure you continue to receive your assistantship, a decision regarding rotation choice must be made no later than April 1, 2009 so that all the approvals and documentation can be processed.

Where can I find information on Toxicology Faculty?

• Homepages of the individual faculty: http://www.toxicology.iastate.edu
  Click on the “Faculty” link.

• Discussions with individual faculty members. Faculty can provide curriculum vitae and recent publication references. We would encourage you to contact and interact with a minimum of six different faculty during the rotation selection process.

When should I set up the 2nd and 3rd rotations? This is tricky! Some faculty want to know within a few weeks of your arrival if you are interested in doing a research rotation with them
so that they can schedule your rotation and design a project for you to work on. They will have other students meeting with them as well and they may only wish to have one rotation student at a time so as to be able to interact with you during your rotation. We encourage you to talk with as many faculty in whose research you are interested as early as possible. You should have your 2nd rotation selected by September 15 and your third rotation selected by December 1.

Once you have decided which faculty you would like to discuss the possibility of rotations with, follow these guidelines:

______ You need to personally ask the faculty member whether you can rotate in his or her laboratory and before committing to a rotation, ask whether the faculty member will be able to fund an additional graduate student that year.

______ In consultation with the faculty member, decide on dates to begin and end your rotation in the lab. If your rotation includes holidays like Thanksgiving or Christmas you should ask about the work schedule during this time and indicate if you plan to take any vacation days.

______ Discuss with the faculty member if there is an expectation of a presentation or short paper so you can plan for this during the rotation. Also discuss with the faculty members their expectations regarding your work schedule (arrival and departure times in the lab).

______ Rotation schedules are somewhat flexible. However, if you decide to extend or to rotate in a different lab than you had originally planned, then you must notify any faculty member whose schedule may be impacted by this change. Extending rotations beyond the March 1 completion date may put you at a disadvantage as faculty will be making decisions at this time regarding other students who have rotated through their labs.

______ Ask who your main contact in the lab will be during your rotation.

______ You do not have to stay past the agreed upon lab rotation completion date to finish a project. Doing so may put you at a disadvantage for rotation opportunities.

______ If you know after two weeks that this is not the area of research that you wish to pursue, you should work with faculty member and the rotation lab manager to terminate this rotation. The TOX program is willing to assist you in this as well. This will allow you to do at least 3 full-term rotations in labs that perform research in your area(s) of interest.

______ You must meet with the faculty member at the end of your rotation. Topics of discussion may include:

- Your research progress during the rotation (Your notebook should be complete and legible.)
- What you learned during the rotation.
- Which questions addressed by the research group interested you the most.
• You may also choose to discuss possible projects if you were to join the lab. If you are interested in joining the research group, you should state that after all your rotations are complete.

• You **MUST NOT COMMIT** TO A LAB UNTIL YOU FINISH YOUR ROTATIONS. The faculty member may not be aware of your rotation schedule and may ask you to commit to a decision prematurely. In this case, you may discuss your interest in the lab, but you must state, “I can’t actually commit to a lab until my third rotation is completed.” Remember that as great as your present rotation may be, there is always the possibility that the next rotation will be even more interesting or promising.

______ After you finish all of your laboratory rotations, ask the faculty member with whom you would like to work whether he or she can accept you into his or her laboratory and arrange for your future financial support.

______ Ask regarding the amount of the stipend. These are things you need to know when deciding whether to join a specific lab. IG Faculty are located in 14 different departments and stipend rates and tuition support differ within each department and laboratory. You can approach this question by indicating the present amount you receive from IG and ask if the faculty member will be able to provide the same support.

______ Once a mutual agreement has been reached, please inform the INTERDEPARTMENTAL TOXICOLOGY program chair and program coordinator. Students should initiate a “Home Department for Students Admitted to Interdepartmental Majors” form found at: [http://www.grad-college.iastate.edu/forms/files/EstablishDepartment.doc](http://www.grad-college.iastate.edu/forms/files/EstablishDepartment.doc) and bring that form to the TOX administrative office in 2102 Molecular Biology.

______ ADDRESS CHANGE. Go into ACCESSPLUS and make changes to reflect you new campus address and phone in both the STUDENT SECTION and the EMPLOYEE Section. This will make sure that campus information reaches you directly.

The following represent some situations you might experience during rotations.

**Okay, I have my three rotations set, but now I have learned about a lab that I might prefer to do a rotation in; what do I do now?** Go ahead and talk to the faculty member about the possibility of a rotation, then decide if you would like to do the rotation and if so, where it would best fit (2\textsuperscript{nd} or 3\textsuperscript{rd}). Contact the faculty member whose lab you originally planned to do the rotation with and let them know as soon as possible of this change.

**I started my rotation and it has been two weeks, and I know I will not select this lab; should I continue in the rotation?** No. Begin looking for other lab rotation possibilities. As soon as you have located another lab you are interested in, let the faculty member whose lab you are doing the rotation in know you are not that interested in the lab’s research and begin the other lab rotation.

**What if the rotation project I am working on runs longer than expected?** The purpose of rotations is for you to discover if the lab you are working in—the major professor, lab mates, lab culture, and the research projects are a good fit for you. By eight weeks you should have a good idea about this. Do not stay in the lab rotation for longer than 8 weeks; this may
mean that you leave without completing the project assigned. Faculty are aware that you need to continue with your rotations since you are required to complete 3 and must make a decision regarding your lab by March 15. Staying beyond the outlined lab rotation dates could mean that you will miss out on an opportunity in a lab where a decision is being made.

I really liked my second rotation and I let the faculty member know that. I am worried that if there is only one opening in the lab that unless I tell the faculty member I will take it, the faculty member will give the slot to someone else. I still have my third rotation to go. Most faculty members will allow you to finish your last rotation (as long as you are on schedule) before they make a decision as to whom to offer the opening in their lab to. Let the faculty member know you are beginning your third rotation and that you need to be in that lab for at least six weeks before you can make a final decision. Ask them by what date they will be making the decision. Most faculty will work with you. If they have other students rotating in their labs, they likely will not be able to make a decision until the last student has completed their rotation.

I really liked my second rotation and nothing could be better. I told the faculty member I would be back after my third rotation. Only now I really really like my third rotation and I want to stay with this faculty member and research project. We remind the faculty that they should not put pressure on the students to make decisions prior to the end of their last rotation, but sometimes it happens. If you change your mind, let that faculty member know. If you feel you need assistance in talking with a faculty member, talk with your temporary advisor or contact the Chair of the Genetics program.

Finding my second or third lab is hard. I can’t seem to find one that meets my interests, indicates they have funding to support me, and is available during one of the lab rotation periods. As a graduate student it is your responsibility to keep looking and talking to potential faculty about research projects. You can contact your temporary advisor for advice and you can contact Linda Wild regarding potential faculty rotations. You are responsible for making the most of the time you have to participate in rotations.

_______ Attend seminars. Stay and listen to the questions other people ask.

_______ It would be really useful for you to familiarize yourself with the ISU Graduate College homepage. It contains information on deadlines, forms, publications, campus/community life, degree requirements, graduate student well-being, and student services for graduate students.

YOUR SECOND YEAR

FORMS: TOXICOLOGY Checklist (due October 1) Professional Advancement Grant (PAGs): Travel to symposia and conferences (attend, take a poster, present).

http://www.grad-college.iastate.edu/gpss/PAG/index.html these should be turned into your Department. Check with Linda regarding funding from TOX; usually $200 but all items due on your TOX checklist must be met before funding is provided.

Letter of Intent: Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists...
to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.

**Health Insurance**: Coverage period is August to August. Enroll on-line through ACCESS PLUS. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here:

http://www.hrs.iastate.edu/sship/

Enroll in TOX 689 Fall and Spring Semesters.

At the end of your first year in your major professor’s lab you should complete your committee and POS forms. The POS is a contract between you and your committee that will partially fulfill the requirements of your degree. Students on Fellowships may have additional coursework to complete that meets the Fellowship training plan and area of emphasis.

Forms for setting up your Committee and POS forms can be found on the ISU Graduate College Forms page:  http://www.grad-college.iastate.edu/forms/forms.html

Add any additional courses required by your POS committee. A total of 72 credits is required and at least 12 credits must be research.

_________ Committee form

_________ POS form

_________ Forms to establish a committee and to seek approval of a program of study must be submitted to the Graduate College at least one academic term before the student may request to schedule a preliminary or final oral examination.

During your second year you should complete most of the required coursework, spend a good deal of time in the lab and READ. Have questions? This is what your committee is for, to assist you towards your goal.

In your second year, if you are interested in going into teaching, consider signing up for Preparing Future Faculty:  http://www.celt.iastate.edu/pff/

_________ Attend seminars. Stay for questions, listen, and participate by asking questions.

**YOUR THIRD YEAR**

**FORMS:**

- **TOXICOLOGY Checklist** (due October 1)
- **Professional Advancement Grant (PAGs):** Travel to symposia and conferences (attend, take a poster, present).

http://www.grad-college.iastate.edu/gpss/PAG/index.html

these should be turned into your Department. Check with Linda regarding funding from TOX; usually $200 but all items due on your TOX checklist must be met before funding is provided.
Request to Change Committee Appointment Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php

Modifications to the POS Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php

Preliminary Examination: This form is available in most departmental or graduate program offices. It is not available on-line. Forms to establish a committee and to seek approval of a program of study must be submitted to the Graduate College at least one academic term before the student may request to schedule a preliminary examination. Six months or more must elapse between passing the preliminary oral examination and the date of the final oral examination. ["Six-month Rule"]). Students may not participate in the preliminary oral examination remotely.

Letter of Intent: Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.

Health Insurance: Coverage period is August to August. Enroll on-line through ACCESS PLUS. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here:
http://www.hrs.iastate.edu/sship/

Enroll in TOX 689 Fall and Spring Semesters

_________ If you are planning to add a minor or specialization, this is the time to do it; BEFORE your prelim. If a doctoral student wishes to add a minor or second major, this must be done before the preliminary oral examination. Students may not participate in the preliminary oral examination remotely.

The Graduate College requires a preliminary oral examination of Ph.D. degree students; most programs, including Interdepartmental Toxicology, add a written portion of the preliminary oral examination. The Ph.D. degree preliminary oral examination rigorously tests a graduate student’s knowledge of major, minor, and supporting subject areas as well as the student's ability to analyze, organize, and present subject matter relevant to the field.

_________ At the beginning of your third year, set a date for your prelim. You may need to do this a semester in advance to find a time when all of your committee members can be present. We do not recommend that you put this off. If you are not prepared to pursue a Ph.D., finding out in the 4th year of graduate study doesn’t make it any easier for you or your major professor.

The entire POS committee must be convened for the preliminary oral examination. Any request to change the makeup of the committee needs to be submitted in writing to the Graduate College and approved by the Dean of the Graduate College before the preliminary oral examination is held. The request must be signed by the student, all committee members involved in the change, and the DOGE.

_________ Committees should make all reasonable efforts to meet in person, though one committee member may participate from a distance if the student is present on campus with the remainder of the committee. The Graduate College must be notified by form before the examination if a committee member must participate from a distance. That notification should
include the name of the committee member designated to sign forms on behalf of the remote participant. [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

_________ How do I get all of the faculty together for my prelim? Students need to realize that many professors have very full schedules. Hence, a good approach to setting up a Preliminary Examination would be to pick a two-week interval in consultation with their major professor and then ask the POS committee members to list their free times during that interval. Following the advice of the major professor, the student should determine the amount of time required for the planned meeting. This value (probably 2 to 4 hours) should be indicated in the initial message to the POS committee members. The two-week interval should be at least several weeks in the future for an initial POS meeting (which would only require one or two hours) and probably a month or more in the future for a qualifying/preliminary exam or a final defense, which would require a longer time slot. After the faculty respond, the student can select one or a few times when everyone appears to be free, and when a room is available for the meeting, and again solicit the opinions of the POS committee members. This whole process needs to be completed in one or two days so that slots that were free during the initial inquiry remain free. E-mail is the preferred method of communication.

_________ Talk with your committee members and major professor as to what to expect regarding your preliminary examination. This examination should be completed by the end of the third year of graduate training. Again, we do not recommend that you put this off.

_________ To initiate your Preliminary Exam, a Request-for-Preliminary-Examination form should be turned into the Graduate College at least two weeks prior to the date of your Preliminary Examination. Request-for-Preliminary-Examination forms are available in most departmental offices, the TOX administrative office and at the Graduate College. It is NOT available on-line. After processing your request, the Graduate College will forward to your [departmental](http://www.grad-college.iastate.edu/common/forms/student_forms.php) graduate secretary the Preliminary Examination Report form. The departmental secretary should give this form to your major professor. The results of the Preliminary Examination will be recorded on this form, signed by all committee members and returned to the Graduate College.

The purpose of the Preliminary Examination is to test:

- breadth of knowledge in the area of toxicology
- depth of knowledge in a student’s particular research area
- critical thinking skills especially as they pertain to the scientific method and hypothesis-based research

_________ For this purpose, the Preliminary Exam must contain both a written and an oral component. The written component is to be administered before the oral exam and must include questions testing your knowledge of toxicology. Every committee member must be given the opportunity to present written questions to be answered by the candidate in a manner determined by the committee member (e.g., take home exam, open book, time limit, length limit, etc.). Ideally, each committee member will respond to this invitation by providing his/her questions in a timely fashion. One of the written examination tasks, frequently asked for by the major professor, may be the preparation of a detailed research proposal about the
candidate’s dissertation research plans. If applicable, this proposal should be shared with the whole committee before the oral component of the exam.

The oral component of the Preliminary Examination should cover additional areas of Toxicology as well as test the candidate’s ability to solve problems and address scientific questions in an appropriate manner. For example, the oral section could be structured as follows: i) a short summary of research progress and proposed experiments given by the candidate; ii) a period of questions directly interrogating an understanding of the dissertation research project; iii) a period of questions targeting an understanding of Toxicology in its widest concept. This is a non-binding suggestion, and we very strongly recommend that each PhD student speak with all of his/her committee members well in advance of the Preliminary Examination to obtain a good concept of what will be expected.

We asked students who have successfully completed their Preliminary Examinations to offer some suggestions regarding preparing for your prelims. Here is what they said:

“More than anything else I think it is helpful to cultivate a relationship with each member on your committee. This way you can understand where they're coming from and they can do likewise of you. In the end, prelims are not solely about facts, questions or science but are instead about interactions between people. My adviser did an excellent job of helping me understand that. The most important thing I could tell new students is to get to know their committee members and ask them their expectations. This alleviates much of the stress of trying to study everything, and makes the whole experience more personal.”

“I just passed the prelim last semester and I thought going through the textbooks of the required courses of my major really helps.”

“Review basic textbooks. This helps remind you of the "bigger picture" rather than your own detailed experiment. Practice the oral presentation in front of your lab members. Senior students in the lab will be able to ask prelim-like questions based on their own experiences.”

“TA’ing basic biology courses helped with reinforcing basic biological concepts. Undergraduates expect you to know what you are talking about. If you can interact with 24 undergraduates with various levels of understanding and interest, you can face a prelim.”

Reporting Ph.D. Preliminary Oral Examination Results.

Immediately following the preliminary oral examination it is the responsibility of the POS committee to decide whether the student will be recommended for admission to candidacy and may continue to work toward the Ph.D. degree. All POS committee members must be present at the preliminary oral and sign the report form. Four options exist:

- The student passes and the POS committee recommends to the Graduate College that the student be admitted to candidacy.
- The student may continue his or her studies, but must meet other conditions specified by the POS committee on the “Report of Preliminary Oral Examination” form under “Conditional Pass” before being recommended for admission to candidacy.
- The student fails, but is given an opportunity to repeat the examination six months after the first attempt. An explanatory letter must accompany the report form.
The student fails and is not permitted to continue to work toward a Ph.D. at ISU. An explanatory letter must accompany the report form.

In a preliminary oral examination, if one member of the committee votes not to pass the candidate, the student passes, but each member of the committee must forward to the Dean of the Graduate College in writing a justification for his/her vote. Upon request, these letters will be made available to the committee at the time of the final oral examination. If more than one member of the committee votes not to pass the student, the candidate does not pass the examination. An explanatory letter must accompany the report form.

_______ Attend seminars. Stay and listen to the questions other people ask. Ask questions yourself. Talk to your major professor about scientists you would like to hear speak on various subjects and whether they could be invited. Are there opportunities for short training sessions in other labs with faculty with whom your major professors collaborates in the US or overseas that would widen your knowledge and experience? Be thinking about whether invited speakers would be a good place to pursue your post doc. Read their papers before going to seminars.

_______ Attend conferences and present at symposia.

_______ Mentor new graduate students, summer interns, and undergraduates. Be thinking about whether you want to pursue a teaching/research position or go into industry. Be thinking about potential post docs.

YOUR FOURTH YEAR

FORMS:  
TOX Checklist (due November 1)
Professional Advancement Grant (PAGs): Travel to symposia and conferences (attend, take a poster, present).
http://www.grad-college.iastate.edu/gpss/PAG/index.html  
these should be turned into your Department. Check with Linda regarding funding from TOX; usually $200 but all due items on your TOX checklist must be met before funding is provided.
Letter of Intent: Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 100%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.
Health Insurance: Coverage period is August to August. Enroll on-line through ACCESS PLUS. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here:
http://www.hrs.iastate.edu/sship/
Enroll in TOX 689 Fall and Spring semesters

_________ READ and spend time in the lab. Go to conferences and symposia. Present. Write. Publish. Teach. You never learn anything better than when you interact with inquisitive undergraduates. Get involved in outreach. Train an intern. Work with
undergrads. Help the new graduate student in the lab. Start a Journal Club with other
students that focuses on an area of research you are interested in or a new “hot” area of
research; it doesn’t have to be what you are working on in the lab. Develop connections,
network.

__________ Yearly POS meeting. Each year after the formation of your POS committee you
should set up a time to meet with the members of your POS committee. TOX recommends
that Ph.D. students plan to do this in October of each school year following the Ph.D. Prelim;
at least three committee members must be present. Discussion should center around how
your research is progressing and if there are areas that need to be addressed. Why meet
yearly? Meeting with your POS committee will help keep you on track and give you an idea
of what needs to be done and how long it is going to take to complete your research project.
Some ideas are really interesting but may take a great deal of time to complete, especially if
things go wrong or the research doesn’t work out as you planned.

YOUR FIFTH and FINAL YEAR(S)

FORMS

TOXICOLOGY Checklist (due October 1)
Professional Advancement Grant (PAGs): Travel to symposia and
and conferences (attend, take a poster, present).
http://www.grad-college.iastate.edu/gpss/PAG/index.html
these should be turned into your Department. Check with Linda
regarding funding from TOX; usually $200 but all items due on your
TOX checklist must be met before funding is provided.
Diploma Slip (Application for Graduation):
http://www.grad-college.iastate.edu/common/forms/student_forms.php
Request to Change Committee Appointment Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php
Modifications to the POS Form (if needed)
http://www.grad-college.iastate.edu/common/forms/student_forms.php
Courses become ineligible for use on a program of study if they were taken
more than seven years before the degree will be awarded. [“Overage courses”]
Request for Final Oral Examination.
http://www.grad-college.iastate.edu/common/forms/student_forms.php
Six months or more must elapse between passing the preliminary oral
examination and the date of the final oral examination. [“Six-month Rule”]
Permission from the Graduate College is required for doctoral students who
seek approval for remote participation on the final oral. On-line forms are
available for these notifications and approval requests. All committee members
must participate in preliminary and final oral examinations. Committees should
make all reasonable efforts to meet in person, though one committee member
may participate from a distance if the student is present on campus with the
remainder of the committee. The Graduate College must be notified before the
examination if a committee member must participate from a distance. That
notification should include the name of the committee member designated to
sign forms on behalf of the remote participant.
http://www.grad-college.iastate.edu/common/forms/student_forms.php
Thesis Checklist (thesis is submitted on-line) and deadlines:
http://www.grad-college.iastate.edu/current/thesis/
International Students should meet with the International Students Office the semester before they plan to graduate to discuss options. Several months are needed for paperwork to be processed for OPT and other opportunities.

**Letter of Intent:** Be aware of the start and stop dates of your letter of intent. Check with your major professor and/or departmental administrative specialists to make sure you are on payroll and that your tuition support (at least 50%, provided you are on a ½ time assistantship, making good progress towards completion of your degree and have at least a 3.0 GPA) is being paid.

**Health Insurance:** Coverage period is August to August. Enroll on-line through ACCESS PLUS. Information on Health Insurance, Dental Insurance, Pharmacy Program, and Vision Care can be found here: [http://www.hrs.iastate.edu/sship/](http://www.hrs.iastate.edu/sship/)

Enroll in TOX 689 Fall and Spring Semesters

_______ What format should my thesis be in? Toxicology thesis must be in **Journal Paper Format** unless prior approval from the Toxicology Chair is obtained before you begin writing. With the approval of your major professor and POS Committee, you may include manuscripts published in, accepted by, submitted to, and/or prepared for submission to scholarly journals and proceedings (or modified from those versions). As in a traditional thesis, the collection of papers should address related topics. You must be a primary author of the papers (i.e., a person principally involved in the data selection or collection, the data analysis or interpretation, and the writing of the papers). Information on this format can be found here: [http://www.grad-college.iastate.edu/current/thesis/resources/files/Journal_Papers.pdf](http://www.grad-college.iastate.edu/current/thesis/resources/files/Journal_Papers.pdf)


_______ At the end of the semester before the semester I graduate, what are the steps I need to do and when? Here is the site with deadlines: [http://www.grad-college.iastate.edu/deadlines/](http://www.grad-college.iastate.edu/deadlines/)

_______ When do I file a Diploma slip? File an Application for Graduation (Diploma Slip) for the semester you plan to defend your thesis and to graduate: [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

_______ I am just about ready to leave, what’s next? Talk with your major professor, committee members, and peers regarding job or continuing education opportunities available upon completion of your degree.

_______ Payroll and Tuition. It is always best to talk with the Graduate College if you plan to leave and go off payroll during the semester rather than at the end of the semester. Things to take into consideration include:
To qualify for in-state tuition rates a student must be on an assistantship for 3 months during the fall or spring terms and 6 weeks in the summer, otherwise you will be charged out of state tuition when registering for 5 or more credits.

You can be paid, while not registered, through the first week of the semester.

You must be registered for the semester you graduate.

You can defend between semesters as long as you are registered for the following semester, but you can then drop your course before the semester starts and avoid paying tuition for that semester.

You will be charged for a minimum of two credits even if you register for one credit.

If you are on an assistantship for 3 months of the semester (6 weeks for summer session) you will be charged as a full-time student even if you do not register full-time.

International students should talk with the International Students Office if they do not register as full-time students.

Notification of Resignation if you are leaving the University. Please fill out a notification of resignation form and turn it into your supervisor when you know your last date on payroll: http://www.hrs.iastate.edu/hr/files/notice_of_resignation.doc Students may also download an Employee Separation Checklist found here: http://www.hrs.iastate.edu/hr/node/48 This form will provide reminders about items such as the turn-in of keys, paying outstanding bills, returning car tags, and where to have W-2s mailed.

Health Insurance. For information on coverage: Student Health Insurance, 0570 Beardshear, 515-294-2394 http://www.hrs.iastate.edu/sship/homepage.html The best source for all things dealing with health insurance is this office.

Optional Practical Training (OPT) for International Students. Contact International Students the semester before you graduate. It takes 3 to 4 months to get OPT approved and your application must reach the Immigration Service Center in Nebraska BEFORE the last day of the semester. http://www.isso.iastate.edu/Current_Students/
ADMINISTRATIVE CONCERNS

The function of the Interdepartmental Toxicology Administrative Office and the Program Coordinator, Linda Wild, is to assist toxicology graduate students and toxicology faculty. You are encouraged to stop in (2102 Molecular Biology) and ask questions or inquire by phone (294-7697) or email (lmwild@iastate.edu). If we don’t know the answer, we will find out who does. If you have academic concerns or lab rotation concerns, you may feel free to contact your temporary advisor or Dr. Richard J. Martin, Chair, Interdepartmental Toxicology (294-2516, akanthas@iastate.edu).

Registration for each semester

Registration is a process by which students become officially enrolled in the university for a given term. Students on assistantships must be registered or they will not be paid during that semester. Students on assistantships for at least a minimum of 3 months during each of the spring and fall semesters (six weeks for summer session) are charged in-state tuition. If the student is on an assistantship for less than 3 months (less than six weeks for summer session) the student will be charged out-of-state tuition. The Graduate College will check to insure that students are registered prior to the beginning of the semester. Students participating in rotations should register for Tox 697 with Dr. Richard J. Martin, Chair of the Toxicology program.

Advisors

Students may enter the toxicology major by one of two routes: admitted in Interdepartmental Toxicology to participate in rotations, or admitted after acceptance by Toxicology into a department. Students participating in rotations will be supported for a period of time usually around 10 months on a Toxicology Research Assistantship and spend their first eight months doing six- to eight-week rotations through at least 3 laboratories before choosing a major professor, home department and research project. Students entering after acceptance into a department will have already identified a major professor and research project. If funds are available, the Interdepartmental Toxicology program may also provide some financial support the first year for these students.

Choosing Your Major Professor (Rotation Students)

Selecting a major professor is an important process. Students on rotations should work with their temporary advisor to find faculty in whose research they are interested. Students are responsible for contacting these potential major professors, setting up appointments to discuss research and interests, and setting up rotation opportunities. Faculty curriculum vitae and recent publication references are on their web pages (http://www.toxicology.iastate.edu).
Faculty can provide further information including recent publications and grant proposals. Students should plan to talk with a minimum of 3 to 5 toxicology faculty during this process. Other sources of information regarding faculty and research projects can include present Toxicology graduate students and faculty homepages on the Internet.

Students participating in rotations should register for Tox 697 with Dr. Richard Martin, Chair of the Toxicology program. Contact Linda (lmwild@iastate.edu) for the reference number.

Because rotations are necessarily brief, students should use their time to get to know the professor, the students and postdocs working in the research group, learn as much as possible about the professor’s research projects, obtain “hands on” experience in one of the group’s research projects, attend research group meetings and journal club meetings, and read reprints, reviews, and grant proposals related to the group’s research. These exploratory rotations encourage interaction and exchange of information and will give you a feel for the lab culture and expectations.

Although research will be conducted during these rotations, the completion of a project is not required. After completing a rotation, you should tell the faculty member of your interest and determine whether there might be space and funding for you after you finish your rotations. Also, discuss the project you might have for your research. You should avoid choosing a major professor until after your rotations. It is in your best interest to reserve your decision until you are fully informed about the opportunities available to you.

It is expected that Ph.D. students will conduct at least two laboratories rotations during the fall semester and one during the beginning of the spring semester completing all rotations by early March.

After you finish all of your laboratory rotations, ask the faculty member with whom you would like to work whether he or she can accept you into his or her laboratory and arrange your future financial support. Once a mutual agreement has been reached, please inform the Interdepartmental Toxicology program chair and program coordinator. Students should initiate a “Home Department for Students Admitted to Interdepartmental Major” form found at http://www.grad-college.iastate.edu/common/forms/student_forms.php and bring that form to the Toxicology Administrative office (2102 Molecular Biology).

Below is a checklist to assist you in setting up your rotations.

**Rotation Checklist**

You can find information on toxicology faculty research:

- Homepages of the individual faculty: [http://www.toxicology.iastate.edu](http://www.toxicology.iastate.edu)
  
  Click on the “Faculty” link.

- Discussions with individual faculty members. Faculty can provide curriculum vitae and recent publication references. We would encourage you to contact and interact with a minimum of four different faculty during the rotation selection process.
Once you have decided with whom you would like to rotate, follow these guidelines:

_____ You need to personally ask the faculty member whether you can rotate in his or her laboratory and before committing to a rotation, ask whether the faculty member will be able to take on additional graduate students that year.

_____ In consultation with the faculty member, decide on dates to begin and end your rotation in the lab. If your rotation includes holidays like Thanksgiving or Christmas you should ask about the work schedule during this time and indicate if you plan to take any vacation days.

_____ Discuss with the faculty member if there is an expectation of a presentation or short paper so you can plan for this during the rotation. Also discuss with the faculty members their expectations regarding your work schedule (arrival and departure times in the lab).

_____ Rotation schedules are flexible. However, if you decide to extend or to rotate in a different lab than you had originally planned, then you must notify any faculty member whose schedule may be impacted by this change.

_____ Ask who your main contact in the lab will be during your rotation.

_____ You do not have to stay past the agreed upon lab rotation completion date to finish a project.

_____ If you know after two weeks that this is not the area of research that you wish to pursue, you should work with faculty member and the rotation lab manager to terminate this rotation. The TOX program is willing to assist you in this as well. This will allow you to do at least 3 full-term rotations in labs that perform research in your area(s) of interest.

_____ You must meet with the faculty member at the end of your rotation. Topics of discussion may include

- Your research progress during the rotation (Your notebook should be complete and legible.)
- What you learned during the rotation.
- Which questions addressed by the research group interested you the most.
- If you are interested in joining the research group, you should state that after your rotations are complete. You may also choose to discuss possible projects if you were to join the lab.

On completion of each rotation, your performance will be evaluated and the faculty member will provide a written evaluation to the Chair. These evaluations will be used in the annual review of each student. Although research will be conducted during these rotations, the completion of a project is not required. You will be asked to evaluate the rotation experience in an interview with the program Chair at the end of the spring semester.
After you finish all of your laboratory rotations, ask the faculty member with whom you would like to work whether he or she can accept you into his or her laboratory and arrange for your future financial support.

Ask regarding the amount of the stipend. These are things you need to know when deciding whether to join a specific lab. TOX Faculty are located in several different departments and stipend rates differ within each department and laboratory.

Once a mutual agreement has been reached, please inform the INTERDEPARTMENTAL Toxicology program chair and program coordinator. Students should initiate a “Request a Home Department for Students Admitted to Interdepartmental Majors” form found at: http://www.grad-college.iastate.edu/common/forms/student_forms.php and bring that form to the IG administrative office.

Go into ACCESS PLUS and change your campus address and campus phone number in both the “Student” and in the “Employee” sections to reflect your new lab. This will insure that information sent to you by the University reaches you promptly.

REQUIRED COURSEWORK FOR A GRADUATE DEGREE IN TOXICOLOGY

Ph.D. Degree Program in Toxicology

Tox 501 (offered fall) 3 credits
Tox 502 (offered alternate Springs) 3 credits
Tox 504 (offered Fall, Spring; required twice) 1 credit each
   Contact Linda Wild, enrolled students present research and attend all seminars during this semester
7 additional credits of Toxicology (see list at bottom of this section)
8 credits in Biochemistry from
   BBMB 404 (offered fall) 3 credits Biochemistry
   BBMB 405 (offered spring) 3 credits Biochemistry
   2 additional credits from 500 or 600 level BBMB courses
3 graduate credits in physiology, histology, or pathology
STAT 401 (offered all semesters) 4 credits
STAT 402 (offered Fall and Spring ) 3 credits
GR ST 565 (offered fall and spring) 1 credit or Vet Path 554 (offered ever other spring)
Research credit: TOX 699. Thesis is required. Check with Tox Administrative Office for Section Designation and Number as pertains to your major professor.

A total of 72 graduate credits must be earned for a Ph.D. At least 36 graduate credits, including all dissertation research, must be at ISU. Doctoral students not on C-base or otherwise working on campus must earn at least 24 graduate credits in two consecutive
semesters plus one summer term (summer - fall - spring or fall - spring - summer). ["Residency Requirement"]  http://www.grad-college.iastate.edu/common/policies/index.php

Graduate Minor, Ph.D.

TOX 501 (Offered Fall) 3 credits
TOX 504 (Offered Fall and Spring) 1 credit
   Enrolled students present research
6 credits in other toxicology courses
TOX 689 (Offered Fall and Spring) 1 time

M.S. Degree Program in Toxicology

TOX 501 (offered Fall) 3 credits
TOX 502 (offered alternate Springs), 3 credits
TOX 504 (offered Fall and Spring, required once) 1 credit
   Contact Linda Wild, enrolled students present research and must attend all
   seminars during this semester
3 additional credits in Toxicology
BBMB 404 (offered Fall) 3 credits Biochemistry
BBMB 405 (offered Spring) 3 credits Biochemistry
STAT 401 (offered all semesters) 4 credits Statistics
GR ST 565 (offered fall and spring) 1 credit or Vet Path 554 (offered ever other spring)
Research credit: TOX 699. Thesis is required. Check with the Tox Administrative
   Office for Section Designation and Number as pertains to your major professor.

A minimum of 30 graduate credits must be earned for a M.S. degree in Toxicology. At least
22 graduate credits must be earned at ISU.

Graduate Minor, M.S.

TOX 501 (Offered Spring) 3 credits
TOX 504 (Offered Fall and Spring) 1 credit
   Enrolled students present research
3 credits in other toxicology courses
TOX 689 (Offered Fall and Spring) take 1 time.

All courses taken at Iowa State University to satisfy a M.S. degree in Toxicology can be used
to satisfy the Ph.D. Toxicology requirements at Iowa State (for example: TOX 504 taken in
the M.S. program counts towards one of the two requirements in the Ph.D. program).

LISTING of Toxicology Courses that meet the “credits in other toxicology course
requirements”:

Tox 419     Foodborne Hazards     Alternative Spring, 2010  3 credits
Tox 420     Food Microbiology     Fall 3 credits
Stat 505    Environmental Statistics     Alternative Spring, 2010  3 credits
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tox 515</td>
<td>Regulatory Toxicology</td>
<td>Alternative Fall, 2008</td>
<td>1 credit</td>
</tr>
<tr>
<td>Tox 519</td>
<td>Food Toxicology</td>
<td>Alternative Fall, 2008</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 526</td>
<td>Veterinary Toxicology</td>
<td>Spring</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 529</td>
<td>Foodborne Toxicants</td>
<td>Fall</td>
<td>2 credits</td>
</tr>
<tr>
<td>Tox 546</td>
<td>Clinical and Diagnostic</td>
<td>F, S, SS. DVMs only</td>
<td>1-3 credits</td>
</tr>
<tr>
<td>Tox 550</td>
<td>Pesticides in the Environment</td>
<td>Spring</td>
<td>2 credits</td>
</tr>
<tr>
<td>Tox 554</td>
<td>General Pharmacology</td>
<td>Spring</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 565</td>
<td>Methods of Biostatistics</td>
<td>Alternative Fall, 2009</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 570</td>
<td>Risk Assessment Food, Ag, Vet</td>
<td>Alternative Fall, 2009</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 575</td>
<td>Cell Biology</td>
<td>Fall</td>
<td>3 credits</td>
</tr>
<tr>
<td>Ent 590I</td>
<td>Insect Toxicology</td>
<td>Alternative Fall, 2008</td>
<td>1 credit</td>
</tr>
<tr>
<td>Tox 626</td>
<td>Adv. Food Microbiology</td>
<td>Alternative Spring, 2011</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 627</td>
<td>Rapid Methods in Food Micro.</td>
<td>Alternative Spring, 2010</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 656</td>
<td>Cellular and Molecular Path II</td>
<td>Alternative Spring 2010</td>
<td>3 credits</td>
</tr>
<tr>
<td>Tox 675</td>
<td>Insecticide Toxicology</td>
<td>Alternative Falls, 2009</td>
<td>3 credits</td>
</tr>
</tbody>
</table>
FALL 2012 Checklist for Completion of Graduate Requirements for Interdepartmental Toxicology Majors (due October 1)

Student Name: ____________________________________________________

Student Email: ____________________________________________________

Degree Sought: ____________________________________________________

Date Started at ISU _____________________ Number of Years in Program _________

Courses become ineligible for use on a program of study if they were taken more than five (master’s students) or seven (doctoral students) years before the degree will be awarded. [“Overage courses”]

Major Professor ____________________________________________________

Co-advisor (if any) ____________________________________________________

Major: _TOXICOLOGY_ Minor or Co-Major: _______________________________

__________ (semester/year) Joined Laboratory of Major Professor

__________ (X) POS Committee formed and submitted to Grad College

Expected by end of first year in program

__________ (X) POS formed and submitted to Grad College

Expected by end of first year in permanent lab

__________ Present GPA

________________________ Indicate date and full or with conditions/PRELIM

Expected to be completed by end of third year

You may attach your c.v. if it describes the following:

Conferences/Scientific Meetings (title, date, and note if poster or talk were presented)

Publications (attach additional sheets if needed)

AWARDS or Fellowships received while at ISU

Teaching Assistantships. Please indicate semester, year and course designation.

Toxicology Course Requirements ________________
NAME

Please check those Courses you have completed and indicate courses where requested.

Master's Degree

______ Tox 501
______ Tox 502
______ Tox 504
______ STAT 401
______ BBMB 404
______ BBMB 405
______ GR ST 565 or Vet Path 554
________________________ Indicate course meeting 3 additional credits in Toxicology that you have completed

Ph.D.

______ Tox 501
______ Tox 502
______ Tox 504
______ Tox 504
______ BBMB 404
______ BBMB 405
________________________ Indicate courses taken to meet 2 additional credits in 500 or 600 level courses in BBMB

______ STAT 401
______ STAT 402
______ GR ST 565 or Vet Path 554
________________________ Indicate courses meeting 7 additional credits in Toxicology
________________________ Indicate course meeting 3 credits in physiology, histology, or pathology that you have completed

Listing of Toxicology Courses that meet the “credits in other toxicology course requirements”:

TOX 419 Foodborne Hazards       TOX 420 Food Microbiology
STAT 505 Environmental Stat     TOX 515 Regulatory Toxicology
TOX 519 Food Toxicology         TOX 526 Veterinary Toxicology
TOX 529 Foodborne Toxicants    TOX 546 Clinical and Diagnostic
TOX 550 Pesticides in the Environment   TOX 554 General Pharmacology
TOX 565 Methods of Biostatistics TOX 570 Risk Assessment Food, AG, Vet
TOX 575 Cell Biology            ENT 590I Insect Toxicology
TOX 626 Adv. Food Microbiology  TOX 627 Rapid Methods in Food Microb
TOX 656 Cellular and Mol Path II TOX 675 Insecticide Toxicology
ACADEMIC MATTERS

Continued membership in the Interdepartmental Toxicology program and financial support is contingent upon satisfactory progress towards your degree.

A cumulative GPA of at least 3.0 is required by the Graduate College. **Students on academic probation (less than 3.0 GPA) do not receive the Graduate College tuition support.** The grading scale at ISU is: A (4.0), A- (3.67), B+ (3.33), B (3.0), B- (2.67), C+ (2.33), C (2.0), C- (1.67), D+ (1.33), D (1), and F (0). Research grades (TOX 699) do not count towards GPA.

Program of Study Committee and Program of Study

By the end of the first year in your research program, you should have formed your POS Committee and your Program of Study.

The degree which a student may pursue in Toxicology (that is, M.S. or Ph.D.) is normally determined and specified at the time of the student’s admission to the program. Although a prior M.S. is not required for admission to the Ph.D. program, criteria for admission to the Ph.D. program are more stringent than to the M.S. program and excellent performance in a prior M.S. program is helpful.

Students wishing to transfer from an M.S. program in Interdepartmental Toxicology to a Ph.D. program may request to do so. Their application to transfer is judged by the same criteria as students applying for direct admission to the Ph.D. program. Iowa State University considers a M.S. degree terminal. To continue for a Ph.D. after completing a M.S. degree obtain and fill out a “Masters Student on Ph.D. Track in Same Department” form: [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

PROGRESSING THROUGH YOUR DEGREE PROGRAM

All of the forms listed in this section can be found on the web at:

[http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

Committee Appointment and Program of Study

In consultation with your major professor, you should decide on a suitable program for completion of your graduate course work. It is then necessary to appoint a graduate Program of Study (POS) Committee. The composition and responsibilities of the POS committee will be in accordance with the Graduate College guidelines.

The POS committee should include faculty whose research interests can aid and complement your research project, as well as faculty whose expertise will ensure that you graduate with a breadth of knowledge. **Committee members support the student through their degree process and are resources for professional development and career guidance while you are in training and often long after completion of your degree.** It is expected that your committee form should be completed by the end of your first year in
graduate school. From the ISU Graduate Student Handbook “After the POS committee has been selected, it guides and evaluates the student during the remainder of graduate study. Among the committee’s duties are:

- reviewing periodically the progress of the student;
- advising a student during the development of the creative component, the thesis, or the dissertation;
- considering and approving the student’s program of study as well as changes in the program of study;
- reading the creative component, thesis, or dissertation; and
- conducting the preliminary oral examination (for Ph.D. candidates) and the final oral examination (for master’s and Ph.D. candidates).

“Individual graduate programs may add other responsibilities for the POS committee. Early selection of a major professor, appointment of a POS committee, and development of a program of study are very important. It is recommended that the committee be formed as early as the second semester of graduate study. In no case can the committee be formed later than the term before the final oral examination or preliminary oral examination. “

The POS committee for a **doctoral** program must consist of at least five members of the Graduate Faculty. The committee must include at least three faculty, including the major professor, from within the INTERDEPARTMENTAL TOXICOLOGY major. At least one member of your committee should be designated as “outside” by your POS committee. This member of the POS committee should be someone who can provide relevant specialized knowledge, a different perspective helpful to the planning, execution, and reporting of research, or some aspect of intellectual diversity deemed important by the committee.

### Interdepartmental Toxicology Majors:
**Graduate College Requirements for Composition of Program of Study Committees**

Below are listed the current minimum requirements for the composition of Program of Study Committees. The rules are established by the Graduate College, but are listed below in terms of a student majoring in Interdepartmental Toxicology. All individuals listed below must be members of the Graduate Faculty. See the Graduate College Handbook for a complete explanation and instructions on how to have co-major professors, additional members, etc. Committee members decide who is “outside”.

<table>
<thead>
<tr>
<th>Role</th>
<th>Inside TOX</th>
<th>Ph.D</th>
<th>M.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Professor</td>
<td>Inside TOX</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Committee Member</td>
<td>Inside TOX</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Committee Member</td>
<td>“Outside” as designated by you and your committee</td>
<td>1 or 2</td>
<td>1</td>
</tr>
<tr>
<td>Minimum Total</td>
<td></td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

The POS committee for a **master’s** student must consist of at least three members of the Graduate Faculty. It must include two members, including the major professor, who are faculty in the INTERDEPARTMENTAL TOXICOLOGY program. One member of the committee must be deemed “outside” by you and your committee members. The choice of who is “outside” is up to you and your committee.

Once the chosen members of the POS committee have agreed to serve, you should complete the Graduate College form "Recommendation for Committee Appointment" and
submit it to the INTERDEPARTMENTAL TOXICOLOGY program chair for approval. On the committee form, under major, print or type: TOXICOLOGY. After official appointment of the committee, copies of the form will be returned to you and your major professor. A third copy is placed in your file in the INTERDEPARTMENTAL TOXICOLOGY program office.

The next step is to call your committee together (all committee members must be present), inform them of your research plans, and ask for their evaluation of your plans. This is also the time to complete your Program of Study. The Graduate College Program of Study is one of the more important documents you will encounter while in graduate school. In essence, it is a contract between you and the graduate school indicating the minimum course work which must be taken to complete a Ph.D. or M.S. No changes can be made in it without the mutual approval of yourself, your committee, and the Graduate College. When filling out the POS form, be sure to use the correct course designators. Doctoral students not on C-base or otherwise working on campus must earn at least 24 graduate credits in two consecutive semesters plus one summer term (summer - fall - spring or fall - spring - summer). ["Residency Requirement"]. Courses become ineligible for use on a program of study if they were taken more than five (master’s students) or seven (doctoral students) years before the degree will be awarded. ["Overage courses"]

Scheduling Committee meetings:

Students need to realize that many professors have very full schedules. Pick a two-week interval in consultation with your major professor and then ask the POS committee members to list their free times during that interval. Following the advice of the major professor, the student should determine the amount of time required for the planned meeting. This value should be indicated in the initial message to the POS committee members. The two-week interval should be at least several weeks in the future for an initial POS meeting (which would only require one or two hours) and probably a month or more in the future for a qualifying/preliminary exam or a final defense, which would require a longer time slot. After the faculty respond, the student can select one or a few times when everyone appears to be free, and when a room is available for the meeting, and again solicit the opinions of the POS committee members. This whole process needs to be completed in one or two days so that slots that were free during the initial inquiry remain free. E-mail is the preferred method of communication. You may also consider using a free Doodle poll (http://www.doodle.com/) to find out from faculty what will be the best time to set up the meeting.

FIRST COMMITTEE MEETING TO SETUP POS

By the end of their first year in their major professor’s laboratory, Ph.D. candidates majoring in Toxicology must present a description of their proposed dissertation research to their POS committees at or before the time they submit their proposed Program of Study to their POS committee. The proposal must include a written component submitted to the POS
committee at least one week prior to the oral presentation. The oral presentation should be scheduled as part of the TOX 504 seminar series. The student is responsible for informing the Chair of the Toxicology program or the Program Coordinator the scheduled time and place of the oral presentation. The length and formality of the written and oral components will be determined by the POS committee. However, the written component must be at least 2 to 3 pages long and must be self-contained and understandable independently of the oral presentation. All members of the POS committee must be present during the oral component.

After this initial proposal, a POS committee may require, if it so desires, a longer or more formal proposal; for example, a detailed written research proposal in conjunction with a formal departmental seminar or a detailed written proposal as part of the Ph.D. preliminary exam.

Research proposal requirements, if any, for Master’s degree candidates are determined by their home departments.

**Preliminary Examination**

All graduate students must pass certain examinations before obtaining their advanced degrees. For a Ph.D. candidate, the first of these examinations is the Preliminary Examination. Students may not participate in the preliminary oral examination remotely. All committee members must participate in preliminary examinations. Committees should make all reasonable efforts to meet in person, though one committee member may participate from a distance if the Graduate College notified prior to the examination. That notification should include the name of the committee member designated to sign forms on behalf of the remote participant. This examination should be completed by the end of the third year. It must contain both a written and an oral component. The written component MUST include questions testing your knowledge of toxicology. Master’s degree candidates are not required to take a Preliminary Examination. Request for Preliminary Examination forms are available in departmental and program administrative offices and at the Graduate College (they are not available on the ISU web site).

**Student Termination after Completion of a Master’s Degree.** This is sometimes referred to as a "terminal master's" degree. Most master's degrees are scholarly achievements in their own right. All Master’s degrees are considered terminal. Students who plan to continue on for a Ph.D. should fill out the Master Student on Ph.D. Track in the Same Department form found at: [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php) and get the appropriate signatures and approvals.

**Yearly POS Meeting**
Each year after the formation of your POS committee you should set up a time to meet with the members of your POS committee. TOX recommends that Ph.D. students plan to do this in October of each school year following the Ph.D. Prelim; at least three committee members must be present. M.S. students are encouraged to meet yearly (October recommended) until the final defense; at least two committee members must be present. Discussion should center around how your research is progressing and if there are areas that need to be addressed.

**Writing Your Thesis**

All students whose programs of study require a Thesis or Dissertation must comply with all Iowa State thesis requirements in order to graduate. Iowa State University began requiring all Theses and Dissertations to be electronically submitted in the Fall of 2006. Information on writing your thesis: [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php)

TOX **REQUIRES** that theses for M.S. or Ph.D. degrees be in the Journal Paper Format: [http://www.grad-college.iastate.edu/current/thesis/resources/files/Journal_Papers.pdf](http://www.grad-college.iastate.edu/current/thesis/resources/files/Journal_Papers.pdf), that is, they must include one or more papers designed for submission to a journal. Writing in Journal Paper Format will help you learn to write papers and, at the same time, shorten the time it takes for your thesis research to be published. If your POS committee feels that the Journal Paper Format is inappropriate for your thesis, this requirement can be waived by petition from your POS committee to the TOX Chair. **This should be done well before you begin writing your thesis not when you turn your thesis in to the Chair/DOGE!** If you are including research data from other students or researchers, follow the instructions in the ISU Thesis Manual describing co-authors’ roles in the research and/or preparation of the manuscript.

This checklist is what the Thesis Reviewers in the Graduate College will use to review a thesis after it has been submitted to ProQuest/UMI. [http://www.grad-college.iastate.edu/current/thesis/checklist/](http://www.grad-college.iastate.edu/current/thesis/checklist/)

**Final Examination**

The Final Examination for the Ph.D. and M.S. degrees is an oral defense of the Ph.D. dissertation or M.S. thesis. All committee members must participate in final oral examinations. Committees should make all reasonable efforts to meet in person, though one committee member may participate from a distance if the student is present on campus with the remainder of the committee. The Graduate College must be notified before the examination if a committee member must participate from a distance. That notification should include the name of the committee member designated to sign forms on behalf of the remote participant. The Graduate College requires doctoral students to seek approval for remote participation on the final oral prior to the final. On-line forms are available for these notifications and approval requests.

This examination will review the dissertation or thesis and the candidate’s knowledge of relevant subjects. Fill out a “Request for Final Examination Form” found on-line. This form is
sent to the Graduate College and a “Report of Final Examination Form” is sent to your home department with instructions that it should be given to your major professor.

A graduate student must be enrolled during the semester in which the final examination is taken.

**Graduation**

[http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html](http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html)

(This information taken from the ISU Graduate Student Handbook) Application for graduation should be made by the end of the first week of the semester (fall or spring) in which the student expects to receive the degree, or by the last day of the spring semester when wishing to graduate during summer session. To apply for graduation, the student is required to submit to the Graduate College a signed “Application for Graduation” form, available or on the Web at [http://www.grad-college.iastate.edu/common/forms/index.php](http://www.grad-college.iastate.edu/common/forms/index.php). Before submitting this form, a student must have submitted and had approved by the Graduate College a “Recommendation for Committee Appointment” form and a “Program of Study” form. Also the student must have been fully admitted to a program and met the Graduate English requirement (for nonnative English speakers). Graduation may be delayed if the “Application for Graduation” form filing deadline is not met. If it becomes apparent that a student cannot graduate during the indicated term, he/she should call the Graduate College (515-294-4531) and cancel the “Application for Graduation” form. The student must then file a new form for the next planned term of graduation. Upon submitting the application for graduation, all thesis students will be charged a one-time, nonrefundable $100 thesis fee by the Graduate College. This fee will be billed to each thesis student’s university bill to cover thesis review and processing, thesis technical assistance, and printing and binding fees for the ISU library copy.

The master’s final oral examination is conducted after the thesis is finished. The thesis final oral examinations are comprehensive, oral, and may include written sections. The Ph.D. final oral examination, conducted after the dissertation is finished, is oral and often limited to a defense of the dissertation. To receive the degree at the end of a given semester, the student must hold the final oral examination before the final oral examination deadline for the semester.

The Graduate College must be notified in advance of master’s students who intend to participate in the final oral examination remotely, and permission from the Graduate College is required for doctoral students who seek approval for remote participation on the final oral. On-line forms are available for these notifications and approval requests.

[http://www.grad-college.iastate.edu/common/forms/index.php](http://www.grad-college.iastate.edu/common/forms/index.php)

The candidate is responsible for initiating the "Request for Final Oral Examination" form, which must be submitted to the Graduate College at least three weeks before the examination. When a final oral examination includes a defense of the thesis or dissertation, the candidate must submit copies of the manuscript to members of the POS committee at least two weeks before the examination. A committee member who does not receive the thesis at least two weeks before the final oral examination may cancel the examination.

The entire POS committee must be convened for the final oral examination. Any request to change the makeup of the committee needs to be submitted in writing to the Graduate
College and approved by the Dean of the Graduate College before the final oral examination is held. The request must be signed by the student, all committee members involved in the change, and the DOGE. With the approval of the major professor and concurrence of the candidate, interested faculty members and graduate students may attend final oral examinations and, at the invitation of the major professor, may ask questions.

In some cases, it may only be possible to convene the committee in a timely manner if one of the committee members participates at a distance. This is permitted if the distance participation is agreeable to all committee members, if the mode of communication permits the full participation of the committee member at a distance, and if the Graduate College is notified in advance of the examination in writing by the major professor and advised who will sign for the distant committee member at the conclusion of the examination. The preferred method of distance participation is video conferencing, but speaker phone is acceptable in cases where visual presentation is not critical. The distant committee member must participate for the entire examination.

The "Report of the Final Oral Examination" form must be submitted to the Graduate College immediately after the examination. On this form the POS committee indicates whether the student

- has passed the examination and may be granted the degree sought,
- must meet some conditions before the degree may be granted. These conditions are specified on the report form and will remain in effect until the major professor and/or committee if specified, notifies the Graduate College, in writing, that they have been satisfied and the degree may be granted,
- has not passed but the exam may be retaken. Two months must elapse before the exam may be retaken (a written explanation should be provided with the report form), or
- has not passed and the exam may not be retaken at a future date. The degree is denied (a written explanation should be provided with the report form).

In a final oral examination, if one member of the committee votes not to pass the candidate, each member of the committee must forward to the Dean of the Graduate College in writing a justification for his/her vote. If more than one member of the committee votes not to pass the student, the candidate does not pass the examination.

Graduation—Letters of Recommendation
When you get to the point of needing letters of recommendation, make sure to give the faculty from whom you are requesting the letter: 1) plenty of advance warning, 2) a copy of the job/ad description, 3) a copy of your c.v., and 4) a reminder to the faculty member after a week or two.

Graduation—Leaving Interdepartmental Toxicology

When you complete a degree in Toxicology, whether an M.S. or a Ph.D., or if you transfer from TOX to another major, your membership in TOX automatically ends. If you have completed an M.S. in Toxicology and wish to continue on to the Ph.D. program, you will need to re-apply to the program. If you would like to continue taking classes at ISU, you will need to apply for admission to another major, or apply for admission to a non-degree program through the Graduate College.

Exit Interviews

When you receive the “Graduate Student Approval Slip for Graduation” form from the Graduate College, schedule at least a 15 minute exit interview with the TOX Chair. You will need the Chair’s signature as DOGE for TOXICOLOGY on the Graduate Student Approval Slip.

Staying in Touch

Toxicology mails out a newsletter each December to its alumni. By staying in touch with us (providing a mailing address) to Linda in the administration office (toxmajor@iastate.edu) you can catch up on who has graduated, where some have gone, news from other alumni and faculty, and on happenings in Ames and on items of interest about the campus. We always enjoy hearing from you so items of news are appreciated as well for the newsletter.

Dismissal Criteria

Continuing registration as a graduate student at Iowa State University is contingent on maintaining good standing in a graduate major. Interdepartmental Toxicology expects that its students will complete their degrees in a satisfactory and timely manner. However, there are several situations that may require severing the relationship between Toxicology and a student.

1. Dismissal Criteria
   A student may be dismissed, that is, removed from their degree program and not permitted to register as a TOX student, for the following reasons:

   a). Failure to progress satisfactorily in his/her degree program
      This may be evidenced by a lack of research progress, a lack of aptitude for toxicology, or a failure to maintain a satisfactory academic standing, as defined by the Iowa State University Graduate College Handbook.

   b) Lack of a major professor
Because graduate degrees in toxicology at Iowa State are centered about a mentored research project, it is impossible to complete a degree without a research mentor [major professor]. To maintain good standing and earn a degree in TOX, a student must have a TOX faculty member serving as his or her major professor.

A student admitted to TOX on rotation has up to 12 months from the date of entry into the program to find a faculty member willing to serve as his or her major professor (unless otherwise designated at the time of admission). If the student desires, the TOX Chair will help the student search for a major professor; however, final responsibility for finding a major professor rests with the student.

Occasionally, faculty who have previously agreed to serve as a major professor become unable or unwilling to serve. Faculty desiring to terminate their service as major professor may do so by notifying the student and the TOX Chair in writing. A student who has lost his or her major professor has up to three months after the date the TOX Chair is notified to identify another TOX faculty member willing to serve. The TOX Chair will help the student search for a new major professor, if the student desires.

c) Academic dishonesty

The proper conduct of science requires the highest standards of personal integrity. Because of this, dishonesty in the classroom or in the conduct of research is considered a serious offense by TOX and by the University. Students accused of academic dishonesty will be dealt with according to the procedures outlined in the University Catalog and the Faculty Handbook. Possible punishments can include dismissal from the program and expulsion from the University, depending on the severity of the offense.

2. Dismissal Procedures

A student’s POS committee, or if the student has no POS committee, the student’s major professor, temporary advisor, or a member of the TOX Supervisory Committee can recommend the dismissal of a student for any of the reasons listed above. Recommendations for dismissal are made to the TOX Chair and are acted upon by the TOX Supervisory Committee.

Procedures for dismissal are as described in the Iowa State University Graduate College Handbook. Before a dismissal is decided, the TOX Chair must give the student a written justification for why dismissal is being considered. The TOX Chair must also discuss the situation with the student, as well as his or her POS committee, major professor, temporary advisor, and/or Supervisory Committee, in an attempt to find a satisfactory resolution. This discussion constitutes the “informal conference” as described in the Graduate College Handbook. If a satisfactory resolution can not be reached and the Supervisory Committee votes to dismiss the student, either party may bring the issue to the attention of the Associate Dean of the Graduate College for a decision. The student may appeal the decision of the Associate Dean, as described in the Graduate College Handbook.

3. Responsibilities of TOX and the major professor

It is the responsibility of the Interdepartmental Toxicology program to counsel students who are having academic difficulties, to help students search for an acceptable
major professor, or if students are unable to overcome these difficulties, to help the students identify and apply to other appropriate degree programs. It is the responsibility of the major professor and his/her department to seek funds for a student’s assistantship and for the conduct of research.

4. Relationship between Status in TOX and Termination of Financial Support

Although students in TOX are normally supported on graduate assistantships, this is not a requirement for continued participation in TOX. Students not on assistantship will continue to have regular status in the major so long as they remain in good standing and are registered.

However, because assistantship support at Iowa State requires that a student be a member of a graduate program, dismissal from TOX requires that assistantship support be terminated, unless the student is able to transfer to another graduate program at ISU.

Students with any doubt about their assistantship status should discuss their situation with their major professor, the TOX Chair, and/or the department or program providing their assistantship support. For further information on termination of assistantship appointments, see the Graduate College Handbook.

5. Appeal Process

The University has established appeal processes for student grievances. These vary depending on the nature of the grievance, and are described in the Graduate Handbook. Generally, these procedures begin with the program chair or the appropriate department DEO. It is usually best for all parties if a satisfactory resolution can be reached without initiating a formal appeal process. The Associate Dean of the Graduate College is available to informally consult with students and faculty.

NOTIFICATION OF RESIGNATION

________ Notification of Resignation if you are leaving the University. Please fill out a notification of resignation form and turn it into your supervisor when you know your last date on payroll: http://www.hrs.iastate.edu/hrs/files/notice_of_resignation.doc Students may also download an Employee Separation Checklist found here: http://www.hrs.iastate.edu/hrs/node/48 This form will provide reminders about items such as the turn-in of keys, paying outstanding bills, returning car tags, and where to have W-2s mailed.
FINANCIAL MATTERS

Your Appointment

Most students in INTERDEPARTMENTAL TOXICOLOGY receive some form of financial support. Stipends for students supported by departments are governed by departmental policies. The responsibilities associated with your stipends depend on whether you have a research assistantship (RA) or a teaching assistantship (TA). Information about these forms of support is available in the Graduate College Handbook.

All graduate students on assistantships have signed a Graduate Assistantship Letter of Intent that lists the terms and conditions of their appointment. Generally, graduate assistantship appointments are on a "one-half time" basis (C-Base). "Half-time" is the maximum time appointment for graduate students since the other half of your time is spent as a student in graduate studies and research. Appointments may be terminated by mutual consent or for cause as described in the Graduate College Handbook. If you have any questions regarding your appointment, see Linda Wild (2102 Molecular Biology Building).

Payday at the University is the last working day of each month. Your paycheck will be sent through campus mail to you by the ISU Treasurer to the university address you have given to the Human Resource Services (3750 Beardshear Hall) or you may authorize the Treasurer to deposit your check in a bank of your choice by completing an authorization form available at the Human Resources Office. It is strongly recommended that you have your check sent to a banking institution. If applicable, deductions are made for Federal and State income taxes.

A Graduate Scholarship Credit (Tuition) credit covers a portion of the resident fees which are assessed at full resident in-state rate (100% for Ph.D. students who have at least a 3.0 GPA and are making good progress towards an advanced degree; 50% for M.S. students). For a student to receive this credit they must be enrolled for 3 months for each of the fall and spring semesters and for six weeks of the summer semester if they are not on academic probation or restricted admission.

Attendance and presentation of research results at professional meetings is an essential part of your graduate training. All students should, if possible, attend at least one national or international meeting during their degree program.

Funds for Professional Advancement Grants (PAGs) are provided to graduate and professional students by the Graduate College and the Graduate and Professional Student Senate (GPSS) to help defray expenses related to travel to professional meetings. [http://www.grad-college.iastate.edu/gpss/PAG/index.html](http://www.grad-college.iastate.edu/gpss/PAG/index.html)

Travel PAGs

Travel PAGs may be granted to students who attend a professional meeting, defined as a gathering of an organized society of professionals for the purpose of presenting research. Travel PAGs may also be approved for attending professional workshops that provide hands-on experiences not available at Iowa State University (ISU). Travel PAGs will not provide funding for required academic activities as defined in GSS Bill 93-06, including workshops, classes, or other events required for fulfillment of a student's degree requirements or program...
of study. Travel PAGs are divided into two categories depending on the student’s involvement at the meeting: **Presenters** and **Non-Presenters (attending only)**. To qualify for a Presenting Travel PAG, the student must present results of research performed at ISU at the professional meeting. These categories are described in detail in [*GPSS Bill S07-01*](#).

**Eligibility**

Any ISU graduate or professional student who is currently enrolled as a full-time student, who is not classified under "continuous registration" as defined in [*GSS Bill 95-05*](#), may apply for a Travel PAG. Travel PAGs will not be awarded until the student has registered for classes in the semester they are traveling. Each ISU graduate and professional student is eligible to receive one Travel PAG per fiscal year. The fiscal year extends from July 1 until June 30. There are no exceptions to this rule.

**Travel PAG Financial Support and Funding Availability**

Both the Graduate College and GPSS contribute money to Travel PAGs. Travel PAG applications are first reviewed for funding by the Graduate College and are then considered by the GPSS PAG Chairperson. The Graduate College awards $100 to students who are presenting and $50 to students who are not presenting (see Vet Med exception). Graduate College funding decisions neither ensure nor preclude GPSS support. Veterinary Medicine students who are not concurrently enrolled as graduate students are only eligible for funding from GPSS.

**Timeline for Travel PAGs**

Travel PAG funds will be divided accordingly to the following strategy: 50% Spring, 25% Fall, and 25% Summer. Requests for Travel PAGs can sometimes exceed available funds, so students should apply as early as possible, preferably 8-10 weeks prior to departure. Applications must be submitted to the Graduate College no later than 2 weeks prior to departure. **Without exception**, those applications submitted late will not be considered for funding. In no case will applications received after the departure date of a conference will be approved.

Incomplete applications will be denied. No appeals will be accepted.

**Note:** If you have already received a grant for the current fiscal year, you may still apply during that year for travel that will occur during the following fiscal year.

**Reimbursement and Receipts**

The Graduate College maintains the account for Travel PAGs. After the student returns from their conference or meeting, he/she should contact their department for information on how to get reimbursed. Dispersal of funds will conform to ISU policies as outlined in the [*Office Procedure Guide*](#). Reimbursements must be completed within 3 months from the last date of travel or by the date provided on your approved **PAG application**, whichever comes first. Reimbursements received after the deadline will be denied. Reimbursements will only be approved for actual expenses incurred. Prepayments for travel are not allowed. It is the awardee's responsibility to approve their travel reimbursement through **AccessPlus** by the 3-month deadline.

If the funds available from the Graduate College and Graduate Student Senate are insufficient to support your travel, you should attempt to seek additional funds from your major professor or department.
TOX Student Travel Funds through Toxicology Accounts

To assist the travel of Toxicology majors unable to obtain adequate funds from the PAG, their major professor or department, INTERDEPARTMENTAL TOXICOLOGY will, when possible, provide support. These grants are usually $200 per student per year and may be made at any time of the year.

Who is eligible?
- You must be a graduate student in good standing
- Majoring in toxicology
- Not have any overdue items on your TOX Checklist.

How to receive these funds?
- Contact Linda (lmwild@iastate.edu)
- State the conference title you plan to attend
- Indicate whether you will present either a poster or give a talk and provide the title
- Indicate the dates of the conference
- Indicate how many days you will attend
- Indicate if you applied for a PAG (this answer should be yes; if the answer is no, please provide an explanation).

Ask Linda if you are eligible. Linda will let you know if you are eligible and if the funds are available. Upon return from the conference, contact your departmental representative to file for reimbursement. Ask that person to contact Linda (294-7697) for an account number.

What can you be reimbursed for?
- Registration
- Lodging
- Travel (mileage or air fare)
- Meals (if you provide itemized receipts, no alcohol can be reimbursed)
- Taxi or Rental Car
- Miscellaneous if you have receipts and provide use/reason

What information do you need to provide to your departmental secretary or administrative person?

- Information about any sources of funding and contacts (i.e. Grad College, TOX)
- Your name
- Your major professor
- Your email address
- Depart date and time Return date and time
- Departure City and State Destination City and State
- Travel Purpose (conference name, dates, presentation or poster title if given)
- Daily Meal expenses with receipts
- Mileage or Air Fare (ticket stub or receipt for air fare)
- Registration costs with receipt
- Rental Car costs with receipt
- Taxi cost with receipt
- Photo copy or miscellaneous costs with receipts and explanation for use
BENEFITS and STUDENT SERVICES

Group Hospital, Surgical, and Medical Insurance:
http://www.hrs.iastate.edu/sship/homepage.html

Single student coverage under the ISU Student and Scholar Health Insurance Program is provided free of charge to all graduate students on assistantships at ISU. For new to ISU students, an ISU Insurance Program booklet should be mailed to you through campus mail as soon as you are entered on the payroll system. Students enroll for Health Insurance going on line to ACCESS PLUS https://accessplus.iastate.edu/frontdoor/login.jsp, clicking on the Student Tab and clicking through on Health Insurance and following the instructions provided for registration.

Newly employed personnel should not drop any other insurance they may have until they know the beginning date of the ISU insurance. The Student and Scholar Health Insurance Program is available for the spouse/domestic partner of students and the children of students. For details and enrollment cutoff dates on the ISU Student and Scholar Health Insurance Program, please contact the student insurance representative (515-294-2394).

All international students, whether on assistantship or not, are required to carry the ISU Student Health Insurance or to be covered by another health insurance policy. For more information, contact the International Education Services (IES) in 252 Memorial Union (294-1120).

Prescription Drug Benefit Program

Graduate students on assistantship receive single coverage free of charge in a prescription drug benefit program that reduces the cost of generic and prescription drugs available at the Student Health Center Pharmacy. Information on this benefit can be found at: http://www.hrs.iastate.edu/sship/docs/PharmacyGradAssistsPostDocs.pdf

Health Service

As a student, you are eligible to use the ISU Student Health Service. Thielen Student Health Center is a complete outpatient medical clinic located west of Beyer Hall. The health fee covers consultations with medical staff and subsidizes charges for services, such as laboratory tests, immunizations, x-rays, and pharmaceuticals. A range of services is offered, including medical exams (physicals), women’s health care, sports medicine, physical therapy, STD testing and treatment, travel immunizations, and a full-service pharmacy. Specialty services offered at a reduced rate include psychiatry, orthopedics, and ear, nose and throat. A mandatory Student Health fee (2008-2009 school year) of $95.00 and an $8.00 Health Facility fee per semester is assessed to all students registered for five or more credits ($47.50 and $4.00 for summer session). This health fee pays for some services offered at the Student Health Center. The health facility fee goes towards the payment of the building of the new Student Health Center. For students enrolled for under five credits, the health fee is optional. The Thielen Student Health Center is located at Sheldon and Union Drive on the northwest side of campus. http://www.health.iastate.edu/
Dental Insurance is available for a fee:  
http://www.hrs.iastate.edu/sship/docs/DentalC&DBaseEnrollmentApp.pdf

Vision Care:  http://www.hrs.iastate.edu/sship/docs/VisionOne.pdf

Vacation Information:

Students on assistantships are paid employees of the University and as such are expected to conduct professional activities all days ISU is open, including days when classes are not in session. Most students also conduct research on at least part of most weekends. Many students find semester break a good time to make substantial research progress. Vacation should be discussed with your major professor.

Rotation students can take short vacations during their rotations, but keep in mind that you are paid employees of the University. Students who wish to do so must obtain permission from both the professor in whose lab they are rotating and the Chair of TOX. Such permission should be obtained BEFORE reserving airline tickets or making other non-refundable travel arrangements. Students who take vacation without prior approval will not be paid for missed days and may suffer other administrative consequences at the discretion of the TOX Chair. Students who opt to leave the country for vacations or holidays and whose return is delayed due to visa or other travel problems will likely have their payroll stopped beginning at the end of any approved vacation days until they return to work.

All students are welcome to take vacation during University holidays. During the typical graduate student rotation period, University holidays include Labor Day (September), 2 days at Thanksgiving (November), 3 days at Christmas-New Years (December and January) and Martin Luther King Day in January.

Injuries and Injury Reports

All accidents and injuries sustained by Iowa State University students while in academic classes or events sponsored by the university must be reported to Risk Management by the student and a university representative using the Student Accident Report Form.

A copy of the form and supporting documentation pertaining to the incident are to be kept confidentially in the sponsoring department for future reference. This documentation will assist the university in taking appropriate steps or corrective measures to eliminate hazards that may be connected with university activities.

In addition to completing the Student Accident Report Form,  
http://policy.iastate.edu/policy/safety/accidents/students/ incidents that involve hospitalization or death of a student must be reported by the department or event representative to Risk Management within 8 hours. Incidents occurring after regular business hours must be
reported to the Department of Public Safety. Additional assistance is also available from the Dean of Students Office.

Dial 911 to reach the Department of Public Safety dispatcher and direct the dispatcher to send an ambulance in life threatening situations (respiratory difficulty, chest pain, profuse bleeding and unresponsiveness). The Department of Public Safety may also be contacted to provide or arrange transportation to the Student Health Center or the Mary Greeley Emergency Department.

The Student Health Center is available on campus to provide non-urgent medical services for students. Calls to the Student Health Center during regular business hours are answered by a registered nurse. After regular business hours, First Nurse, an advice line manned 24 hours a day by a registered nurse, answers calls to the Student Health Center telephone number.

**Student Counseling**

The mission of the Student Counseling Service (SCS) is to help students enhance their academic and personal well-being. The Student Counseling Service provides prevention, intervention, information, and referral services to Iowa State students. SCS also provides consultation and training to faculty and staff to assist them in addressing the psychological needs of students.
Student Counseling Service (SCS) provides a wide range of services to help students gain the most from their college experience. SCS offers career counseling, personal counseling, group counseling, and workshops. Most services provided by SCS are short-term in nature, and SCS can assist students needing long-term assistance with referrals to community services. [http://www.public.iastate.edu/~stdtcouns/](http://www.public.iastate.edu/~stdtcouns/)

Some of the typical issues SCS assists students with include career decision-making, coping with relationship problems, low self esteem, stress, loneliness, depression, cultural differences, sexual assault recovery, trauma, childhood abuse, conflicts over sexuality, substance abuse, eating disorders, academic motivation, and other concerns. Other services include the Substance Abuse Prevention Program, Career Resource Center, Learning Disabilities Screening, Placement Testing, and consultation and outreach services. SCS also provides consultation and training to faculty and staff to assist them in addressing the psychological needs of students.

**Crisis Services through Student Counseling Services**

If you have an urgent matter and feel it would be important to speak to a counselor as soon as possible, please call the SCS desk at 294-5056 and let the receptionist know that you are requesting a same-day crisis appointment or simply come to the office in the Student Services Building on the 3rd floor. SCS counselors save some appointments each day for such matters.

If this is after hours or on a weekend/holiday when SCS is not open, and you feel it is important to speak to someone, you may call the Richmond Center at 515-232-5811. IF THIS IS A LIFE THREATENING SITUATION OR ONE THAT COULD RESULT IN HARM TO YOURSELF OR SOMEONE ELSE, CALL 911.

Recreation Services Office: [http://www.recservices.iastate.edu/](http://www.recservices.iastate.edu/)

Legal Assistance: [http://www.dso.iastate.edu/sls/](http://www.dso.iastate.edu/sls/)

Student Organizations: [http://sodb.stuorg.iastate.edu/](http://sodb.stuorg.iastate.edu/)

Dean of Students Office (DSO) and Student Assistance Services (SAS)

Members of the Dean of Students Office (DSO) and Student Assistance Services (SAS) assist students as they manage issues surrounding academic concerns, personal matters/emergencies, and navigation of university policies and procedures. DSO/SAS staff members counsel students on effective ways of filing academic grievances, refer students to university & community resources, provide notification of faculty in emergency absence situations, intervene and follow up with students experiencing mental and physical crises, and provide assistance in understanding the University judicial system. In general, the DSO and SAS are places where students can find answers or start on the path to their own solutions.

These pages are designed to alleviate some frequent concerns, but it can be very helpful to talk one-on-one with a DSO staff member. Students, family members, and ISU faculty/staff seeking assistance can contact Nicci Port (nport@iastate.edu), Coordinator of Outreach.
Services; stop in to the **Dean of Students Office** (1010 Student Services Building); or call 515/294-1020 (TTY 515/294-6635) to schedule an appointment.
ADMINISTRATIVE MATTERS

Administrative Assistance

There are a number of offices on campus to help with the administration of your graduate program. The main one for toxicology students is the TOXICOLOGY office. This office is managed by Linda Wild. Linda can provide expert help with questions about all administrative procedures. (Academic advice about courses and rotations will be provided by your temporary advisor or major professor. See “ACADEMIC MATTERS”).

Linda Wild, Program Coordinator
Interdepartmental Toxicology
2102 Molecular Biology Building
☎ 515-294-7697
FAX 515-294-6669
E-mail: toxmajor@iastate.edu

The Toxicology program office is open Monday through Friday. However Linda may not be in the office the entire time. Her office hours will be posted on the Toxicology office door at 2102 Molecular Biology Building.

Office and Home Addresses

The Toxicology program needs to know your local address and telephone number and also needs to be informed of any changes in your address or phone number that may occur during your tenure in the program.

Your office (desk) address will be determined once you have chosen a major professor. If you do laboratory rotations, you should be given a temporary desk in each laboratory as you proceed through your rotations.

Communications

It is vital that you maintain good contact with Toxicology personnel throughout your graduate program. There are a number of ways to do this:

E-mail. Linda Wild can show you how to get an account and an e-mail address. This can be done in the Toxicology office at 2102 Molecular Biology. E-mail should be checked at least daily during the work week as this is the primary means of keeping our students informed about program activities.

You may use the following e-mail addresses to reach all students and faculty in the program:

 toxgrad@iastate.edu
(reaches all TOX graduate students)

toxfac@iastate.edu
(reaches all TOX faculty members)

Internet homepage for Interdepartmental Toxicology:
http://www.toxicology.iastate.edu

Mail Service. You will normally pick up your mail in your home department. If you have not yet chosen a home department, a temporary mailbox will be assigned to you in 2102 Molecular Biology Building. You should check for mail on a regular basis. If the office door is unlocked but closed, please feel free to come into the office to obtain your mail.

TRANSPORTATION:

Information on cars and parking, registration of bicycles and where you can ride can be found at the Department of Public Safety on campus: http://www.dps.iastate.edu/
Bicycle registration: http://www.parking.iastate.edu/permit/bike/registration.php

The city of Ames has an excellent bus system called CyRide. During the school year the buses leave from most locations every 20 minutes. If you show a current, paid University fee card, you can ride for free. http://www.cyride.com/

INFORMATION TECHNOLOGY

Solution Center, Help Centers, Email, SPAM, Software, Hardware, Network and Communications, Information Technology (IT) Services, SIGN ONS, Computing, Facilities (computer availability on campus) and Training, Sales, Service, Repairs, and Learning and Teaching Technologies (equipment checkout, media production). See: http://www.it.iastate.edu/

ACCESSPLUS

AccessPlus is your secure and personalized online resource for accessing your important and confidential university information and web applications. AccessPlus is available to Iowa State University students and faculty/staff, day or night, seven days a week, from anywhere in the world. To login to AccessPlus, all you need is your Social Security Number or University ID, and your university Password. Once inside AccessPlus, your tabs and menus are customized to meet your specific needs. For example, registered students can view their current course schedule, and only faculty, staff, and students on assistantships can review their most recent pay information. AccessPlus offers a wide range of services from changing your address and managing your CyCash account to viewing, or even paying your university bill online. Some of the other many services available for students through AccessPlus include:

- class registration
- financial aid
- job board
- graduate student status
- class schedules
- grade reports and transcripts
- residence halls and dining
- university bill
DEPARTMENT OF PUBLIC SAFETY

http://www.dps.iastate.edu/ The Department of Public Safety (DPS) strives to help make your experiences at Iowa State enjoyable and productive. The DPS mission is to ensure the campus remains a safe place to live, learn, and work. Our professional staff works with other community members to improve the quality of life by enhancing safety, personal security, and access services for students, faculty, staff, and visitors. The Police Division is the university’s official law enforcement agency and employs 33 state-certified, sworn peace officers to respond to calls for service 24 hours a day. Officers are assisted by a compliment of state-certified dispatchers and civilian support staff. Community service and student officers are trained to provide safety escorts, unlock vehicles, conduct building security patrols, and assist with special events. If you witness any suspicious activity, please call the department immediately at (515) 294-4428; in the event of an emergency, dial 9-1-1.

COMPUTER SERVICES

General information about the computing facilities at Iowa State University can be found at http://it.iastate.edu/ or call the ITS Solution Center located in 195 Duham at 294-4000.
A listing of computer labs on campus: http://www.it.iastate.edu/labsdb/buildings.php

WIRELESS NETWORKING

Wireless networking is a method of connecting a laptop or palmtop computer to the network using radio signals where wired Ethernet service is impractical or unavailable (from ISU IT Web site).

Wireless Hot Spots: Wireless is available in all of the central campus green space, an area covering more than 50 acres. Courtyards and outdoor meeting areas are being added as requests are made. View a building list or map of all of the public wireless access points on campus. http://www.fpm.iastate.edu/maps/default.asp?xcenter=1767&ycenter=2213&zoom=2&layer=wireless

PERSONAL COMPUTER ACCESS

Register your wireless device: http://www.it.iastate.edu/howtos/register_wireless The Student Network Access Program (SNAP) is available to help students connect a personal computer to the campus network. An assistant can visit a residence hall room to help install a wireless card in a computer, configure the card for an on-campus connection, and help load networking software. Students may bring their computers to the Solution Center, 195 Durham Center, and have the setup done there. SNAP is funded by student computer fees, so there is no charge for most standard services. You can contact the SNAP team in 195 Durham Center, by phone at 515-294-4000, or by email at solution. http://www.it.iastate.edu/solution/
GRADUATE STUDENT INFORMATION

THE GRADUATE STUDENT SENATE

Information on the Graduate and Professional Student Senate, G44 Memorial Union, is located at: http://www.grad-college.iastate.edu/gpss/. The Interdepartmental Toxicology program has a student elected representative on this council.

PROFESSIONAL ETHICS

During Orientation activities in August, you will be introduced to the concepts of ethical behavior and good practice in science. Included will be a discussion of proper research methods, ways to avoid self-deception in the practice of science, and scientific misconduct.

It is imperative that you understand the ethical standards of science and conduct your scholarly activities accordingly. Scientists who commit unethical acts, whether from carelessness, ignorance, or malice, quickly lose the respect of the scientific community and/or are prevented from practicing science. Scientific misconduct includes such activities as: falsification of data, fabrication, deceptively selective reporting, purposeful omission of conflicting data with the intent to falsify results, plagiarism, representation of another’s work as one’s own, misappropriation of the ideas of others, the unauthorized use of privileged information, misappropriation of funds or resources for personal gain, and falsification of one’s credentials. At ISU, these acts are taken very seriously and constitute “academic misconduct” (see ISU Graduate College Handbook). Individuals found guilty of academic misconduct may suffer a variety of penalties, up to and including expulsion from the university.

Occasionally, you may be faced with situations in which you are tempted to act in a manner you think might be unethical. If this occurs, we recommend discussing the situation with your major professor, or another professor whom you trust, to determine whether the actions you are considering are unethical. He or she should be able to suggest alternative actions that will be free of ethical questions.

Unfortunately, not all people understand or care about ethical issues and, at sometime in your career, you may be witness to an act you believe to be unethical. When the individuals committing the presumed unethical acts are members of your own laboratory, or worse yet, individuals with power over you, such as your major professor, the situation can be very awkward and you must proceed cautiously. You will find yourself torn between a fear of retribution and a desire to stop the unethical behavior before it hurts you and other members of your laboratory.

If you believe that unethical behavior is going on in your laboratory, we recommend that you first attempt to discuss the situation informally with the person whom you think might be behaving unethically. Sometimes friendly questions will resolve the problem, such as “This data looks almost perfect; how did you do this experiment?” or “Are you sure that you can omit that data point? Won’t that prejudice your interpretation”? or, “This paragraph doesn’t sound like your writing; are you sure you didn’t unintentionally copy some of this?” If you feel
uncomfortable in this approach, or if you have tried this approach and it didn’t resolve the problem, we recommend that you discuss the situation informally with a professor whom you trust. You may also go directly to the Chair of Interdepartmental Genetics or a member of the Interdepartmental Genetics Supervisory Committee. All discussions with the Chair and the IG Supervisory Committee members will be confidential. You may also go directly to Associate Vice Provost for Research who is responsible for investigating charges of academic misconduct on campus. No matter what you chose to do, you should take great care to ensure the rights of the individual whose actions you are questioning. Frivolous accusations of misconduct and vicious spreading of rumors are just as unethical as fabrication of data or plagiarism.

**PROFESSIONAL DEVELOPMENT**

During the course of your degree program, you will be required to maintain a laboratory notebook, present your research data in the form of a poster or as a seminar, and write at least one manuscript for publication in a scientific journal. Following is information for each of these activities, and resources for additional information.

**Standard Operating Procedure for Maintaining a Laboratory Notebook**

Every graduate student within the program will likely be expected to maintain a laboratory notebook to keep a dated record of experimental procedures, results, analyses and conclusions. Ideally, entries should be made directly into the notebook to avoid loss of key information on miscellaneous scraps of paper.

**Your laboratory notebook is a legal document.**

When we contact the Office of Intellectual Property and Technology about one of our inventions, the first question we have to answer is: where is this work written down? Which lab notebook? No kidding, if your project works, it is entirely possible that it is worth a great deal. But a patent, when it is filed, will be filed on the basis of the work you have written down in your notebook. They want page numbers, and they want pages in real notebooks with the dates written on the pages. When the patent lawyers show up, they are going to ask to see your notebook. If the description of the experiments is clear, and the results well documented, we are doing well. These pages should be dated because someone else may be doing the same thing too and dating their pages earlier than ours. Notebooks are cheap, don’t worry about the writing space.

**Your laboratory notebook must remain in the laboratory.**

Because your notebook is a legal document, it is also the property of the University. This sets some real constraints on both you and the university. The notebook has to stay within the laboratory, or at least within the university. It will be stored at the university for at least 5 years after you have left. If you need to take notes in the greenhouse, take your notebook. If you are doing experiments in another laboratory, take your notebook. But when you move on, as we all do at some point, the notebook has to stay in the lab. You are welcome to photocopy all of the note book, take pictures, scan documents, do what ever it takes, to make...
sure that you have all of your notes for the next projects you undertake somewhere else. But the original notebook has to stay in the lab.

**When things suddenly go horribly wrong.**

It does, that's just part of life. The guy working next to you at the bench is a really great guy. Fun at parties, cute, smarter than all get out. Let's call him Ralph. So Ralph shines at all occasions. That doesn't bother you at first, but then slowly you realize that Ralph shines even when his experiments for the week seemed to go no where. You are suspicious, maybe you tell your advisor, maybe you don't. Don't worry, it is a matter of time. This squad from the dean's office will show up and start asking Ralph for his notebooks. Yep, they do that. Picture melt-down from that point onwards. The only way you can stay out of any involvement with that is by having really clean notebooks. This sounds like fantasy to many of you at this point, but everyone who has been in this business long enough has seen it happen.

**Authorship**

In every lab there often arises the issue of authorship. Who should go on the paper? In what order? One of the deciding factors of authorship concerns the notebook. If you have a notebook full of pivotal experiments, you are definitely an author. If you want authorship based on chats over coffee and ideas suggested at lab meeting, with no lab note book pages devoted to any of the work, it will be a different matter entirely. That isn't to say you won't be an author, but don't be surprised if you are not the first one.

**Ownership of Intellectual Property and Data**

ISU subscribes to the general principle that the intellectual property created by a student is generally owned by that student. However, student work often owes much to faculty initiative. In addition, the provisions of sponsored research grants funding research appointments may affect the ownership of intellectual property derived from work on grants. Students must be aware of these restrictions on ownership of intellectual property as provided by university policies on patents and copyrights. Graduate students will be given a fair opportunity to use data resulting from sponsored research grants; however, that opportunity is subject to the university's obligations with respect to those grants. The university has a general obligation to publish the results of scientific investigation. Consequently, the student's right to control data collected under sponsorship is not exclusive. If you wish to continue your research at another location, materials or other university resources may only be transferred with the permission of your major professor and may require completion of a Materials Transfer Agreement.

**Poster Preparation**

Through Printing Services there is a website for Poster templates: [http://www.print.iastate.edu/postertemplates.shtml](http://www.print.iastate.edu/postertemplates.shtml)

Posters can be printed and laminated in the Graphics lab, Room 132 on the first floor of the Technical and Administrative Services Building (TASF) or in the Baker Lab in 2216 Agronomy Hall.
• Baker Lab costs and instructions are as per their web site; http://www.agron.iastate.edu/service_labs/bakerlab/posters.aspx
• TASF cost (2008) for a 38 × 56 inch poster is $61.60 ($1.10 per inch multiplied by the larger number i.e. 56 x 1.10) and poster orders require an intramural purchase order (white and yellow copies; forward pink copy to department). Contact Grant Luhmann (4-7933; luhmann@ameslab.gov). You can send the poster as an e-mail attachment, and collect the poster a couple of days later. Enter TASF on the lower level (132 TASF). Lamination is 20 cents per inch additional.

DISCRIMINATION AND HARASSMENT POLICY

Complete information can be found at: http://policy.iastate.edu/policy/discrimination/

Selections from Iowa State University Discrimination and Harassment Policy follow:

Respect is the foundation for interchange of ideas, for learning and for working toward common goals. Consequently, Iowa State University is committed to assuring that its programs are free from prohibited discrimination and harassment based upon race, ethnicity, sex, pregnancy, color, religion, national origin, physical or mental disability, age (40 and over), marital status, sexual orientation, gender identity, status as a U.S. veteran (disabled, Vietnam, or other), or any other status protected by university policy or local, state, or federal law. Discrimination and harassment impede the realization of the university's mission of distinction in education, scholarship, and service, and diminish the whole community.

Iowa State University reaffirms and emphasizes its commitment to provide a professional working and learning environment that is fair and responsible; that supports, nurtures, and rewards educational and employment growth on the basis of relevant factors such as ability and performance; and that is free of discriminatory, inappropriate, and disrespectful conduct or communication.

For these reasons, the university will not tolerate discrimination or harassment, as defined below, and is committed to preventing it or stopping it whenever it may occur at the university or in its programs. The policy presented here applies to employees, students, visitors, applicants, or program participants at Iowa State University.

Iowa State University prohibits discrimination, which can include disparate treatment directed toward an individual or group of individuals based on race, ethnicity, sex, pregnancy, color, religion, national origin, physical or mental disability, age (40 and over), marital status, sexual orientation (including gender identity), status as a U.S Veteran (disabled, Vietnam, or other), or other protected class, that adversely affects their employment or education.

Iowa State University also prohibits harassment, which can be a form of discrimination if it is unwelcome and is sufficiently severe or pervasive so as to substantially interfere with a person's work or education. Harassment may include, but is not limited to, threats, physical contact or violence, pranks, jokes, epithets, derogatory comments, vandalism, or verbal, graphic, or written conduct directed at an individual or individuals because of their race, ethnicity, sex, pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation (including gender identity), or U.S. veteran status. Even if actions are not directed at specific persons, a hostile environment may be created when the conduct is sufficiently severe, pervasive or persistent so as to unreasonably interfere with or
limit the ability of an individual to work, study, or otherwise to participate in activities of the University.

It is the University's goal to prevent the occurrence of discriminatory and harassing activity and to promptly stop such conduct. While grounded in state and federal non-discrimination laws, this policy may cover those activities which, although not severe, persistent, or pervasive enough to meet the legal definition of harassment, are inappropriate and unjustified in an educational or work environment. This policy will be interpreted so as to avoid infringement upon First Amendment rights of free speech. The University must be mindful of the tradition of academic freedom that includes the free exchange of ideas inherent in an academic community. A determination as to whether discrimination or harassment has occurred will be based upon the context in which the alleged conduct occurs. Complaint Resolution. In an effort to prevent or stop discriminatory or harassing behavior, the University has adopted specific avenues through which an individual can make his or her complaint known. With issues of discrimination and harassment, it is important to identify and remedy the situation as soon as possible. For this reason, the University has adopted two complaint resolution mechanisms for discrimination and harassment concerns - informal and formal resolution. Claims of discrimination and harassment must be brought either as an informal complaint or a formal complaint to ensure that appropriate action can be taken right away. An informal complaint may, but need not be made before filing a formal complaint; however, once a formal complaint has reached resolution, the same complaint cannot be brought as an informal complaint.

To best remedy a situation, complainants are urged to promptly share concerns or complaints rather than risking their well being or negatively affecting the University's ability to investigate their case due to the passage of time and potential departure of witnesses. If a formal complaint contains incomplete information, the Office of Equal Opportunity and Diversity will promptly seek to gather the needed information from the complainant. In the event that such information is not furnished to the Office of Equal Opportunity and Diversity within 30 days from the date of the request, the case may be closed. Consistent with federal regulations governing the filing of complaints, the Office of Equal Opportunity and Diversity may decline to investigate claims in which none of the alleged discrimination or harassing action occurred within the preceding 300 days.

Any employee, student, visitor, applicant, or program participant of Iowa State University may file a complaint alleging discrimination or harassment in violation of the University's policy prohibiting such conduct. In most cases, complaints against affiliates or contractors of Iowa State University must first proceed through the affiliate or contractor before Iowa State University may intervene. Information about the University's policy and resolution procedures may be found in several offices, including the Dean of Students Office, the Student Counseling Service, the Women's Center, the Employee Assistance Program, and the Office of Equal Opportunity and Diversity. As described at the above web site, the University has designated and trained certain individuals, called Sexual Harassment Assistors, to assist a potentially injured person in deciding if and how to proceed and in carrying out that decision.

Responsibilities of the University, Administrators, and Supervisors. Iowa State University--including its officers and its employees--is committed to maintaining a working and learning environment free from discrimination and harassment. The administration will make widely known that discrimination and harassment are prohibited both legally and by this policy, and that appropriate procedures for dealing with allegations of discrimination or harassment are available. Students, staff, faculty, and administrators should know that the university is concerned about such behavior and is prepared to take preventive and corrective action.
University administrators and supervisors who do not respond to discrimination or harassment complaints brought to their attention are in violation of this policy. This policy identifies what an administrator/supervisor should do in the event he or she learns of a discrimination or harassment complaint. In addition, administrators and supervisors are strongly encouraged to seek assistance in the event they feel unequipped to address such a concern by contacting the Office of Equal Opportunity and Diversity.

Confidentiality. Persons seeking general information or guidance about harassment or discrimination may be concerned about whether the information they share with another person will be confidential. While the university is eager to create a safe environment in which individuals can be unafraid to discuss concerns and make complaints, legal obligations may require the university to take some action once it is informed that harassment or discrimination may be occurring. Because of their positions of authority, certain university personnel--i.e., central administrators, deans, directors, department chairs, supervisors, and managers--are particularly obligated to take action when they receive a complaint of harassment or discrimination. Although the confidentiality of the information received and the privacy of the individuals involved cannot be guaranteed, they will be protected to as great an extent as is legally possible. The expressed wishes of the complainant regarding confidentiality will be considered in the context of the university's legal obligation to act upon the charge and the right of the charged party to be informed concerning the charge.

DIVERSITY AT IOWA STATE UNIVERSITY

The Office of Equal Opportunity and Compliance (EOC) is located at 3280 Beardshear Hall, right off the elevator. http://www.eoc.iastate.edu/

ISU defines diversity as that quality of its physical, social, cultural and intellectual environment which embraces the rich differences within the multiplicity of human expression and characteristics including age, culture, ethnicity, gender identification and presentation, language and linguistic ability, physical ability and quality, race, religion, sexual orientation, and socioeconomic status. “In order for affirmative action or diversity to work, there has to be an environment that welcomes it, not just tolerates it”, Carla R. Espinoza, Associate Vice President, Human Resources Services, Director, Equal Opportunity & Diversity, January, 2006.

On-line training for courses such as Diversity, Harassment and Discrimination and Drug Free Workplace are now available through ACCESS PLUS.

“Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Director of Equal Opportunity and Diversity, 3210 Beardshear Hall, (515) 294-7612.”

FELLOWSHIP OPPORTUNITIES (that we know about)

Graduate Research Fellowship Program (GRFP) Brief overview is below; please go to the website for complete details. https://www.fastlane.nsf.gov/grfp/
Synopsis of Program: The National Science Foundation aims to ensure the vitality of the human resource base of science, technology, engineering, and mathematics in the United States and to reinforce its diversity by offering approximately 1,000 graduate fellowships in this competition. The Graduate Research Fellowship provides three years of support for graduate study leading to research-based master’s or doctoral degrees and is intended for students who are at the early stages of their graduate study. The Graduate Research Fellowship Program (GRFP) invests in graduate education for a cadre of diverse individuals who demonstrate their potential to successfully complete graduate degree programs in disciplines relevant to the mission of the National Science Foundation.

The three eligibility requirements for the Graduate Research Fellowship Program -- citizenship, degree requirements, and field of study -- are described. Applicants are advised to read the entire program solicitation carefully to be sure that the requirements are interpreted properly. Applicants must exercise judgment in assessing eligibility. Applicants must be United States citizens or nationals, or permanent resident aliens of the United States. Fellowships are intended for individuals in the early stages of their graduate study. Applicants must have completed no more than twelve months of full-time graduate study at the time of their application. Fellowships are awarded for graduate study leading to research-based Master’s or doctoral degrees in the fields of science, technology, engineering, and mathematics supported by the National Science Foundation (See NSF-Supported Fields of Study). The NSF welcomes applications for interdisciplinary programs of study and research.

NIH Minority Fellowship

http://grants1.nih.gov/grants/guide/pa-files/PA-00-069.html
The National Research Service Award Predoctoral Fellowship for Minority Students will provide up to five years of support for research training leading to the Ph.D. or equivalent research degree; the combined M.D./Ph.D. degree; or other combined professional degree and research doctoral degree in the biomedical, behavioral sciences, or health services research. These fellowships are designed to enhance the racial and ethnic diversity of the biomedical, behavioral, and health services research labor force in the United States. Accordingly, academic institutions are encouraged to identify and recruit students from underrepresented racial and ethnic groups who can apply for this fellowship. Support is NOT available for individuals enrolled in medical or other professional schools UNLESS they are also enrolled in a combined professional doctorate/Ph.D. degree program in biomedical, behavioral, or health services research.

Department of Homeland Security (DHS) Scholarship and Fellowship Program Graduate Fellowships: http://www.orau.gov/dhsed/ US Citizens. You must be pursuing a doctoral or master’s degree with a thesis requirement in the physical sciences, mathematical sciences, computer and information sciences, life sciences, social sciences, psychology, selected humanities, or engineering. If you are enrolled in the first year of a PhD program as of the application deadline, and prior to fall 2008 you had completed no more than two graduate courses since completion of a bachelor’s degree, you are eligible.

GEM: http://www.gemfellowship.org/ Graduate Fellowships for Minority Students
The mission of The National GEM Consortium is to enhance the value of the nation's human capital by increasing the participation of underrepresented groups (African Americans,
American Indians, and Hispanic Americans) at the master's and doctoral levels in engineering and science. We prepare technical leaders for advanced careers in industry, academia, and government agencies by identifying and selecting highly qualified GEM Fellows to complete a program of graduate study and internships. Through our university and employer members, and other strategic partners, GEM develops funding to award fellowships and builds mentor networks to support Fellows in achieving academic and professional success.

**US Environmental Protection Agency National Center for Environmental Research**

http://epa.gov/ncer/fellow/  

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is offering Graduate Fellowships for master's and doctoral level students in environmentally related fields of study for FY2006. The announcement for the FY2006 program has closed. For the first time, applicants for these fellowships were able to apply using the http://www.grants.gov portal. Master's level students may receive support for a maximum of two years. Doctoral students may be supported for a maximum of three years with funding available, under certain circumstances, over a period of four years. The fellowship program provides up to $37,000 per year of support.

**PREPARING FUTURE FACULTY**

The PFF program supplements departmental graduate preparation by offering new teaching, mentoring, and learning possibilities, which give postdoctoral fellows, Ph.D. students, and master’s students further credentialing for a competitive academic job market. PFF’s goal is to better prepare graduates for faculty careers through a combination of seminars, mentoring, and practical classroom and departmental service experiences (information taken from PFF web site: http://www.celt.iastate.edu/pff/)

PFF is a national movement sponsored by the Association of American Colleges and Universities and the Council of Graduate Schools. Currently, over 300 higher education institutions participate in PFF. These institutions include 5 of our peer 11 land grant institutions and 49 of the 151 research-extensive universities. See the National PFF Homepage http://www.preparing-faculty.org/ or further information.
ADMINISTRATION

The activities of the Interdepartmental Toxicology program are overseen by a Chair and Supervisory Committee. Please feel free to contact them if you have any questions about the program.

Supervisory Committee:
- Richard J. Martin, BMS, Chair and DOGE rjmartin@iastate.edu
- Joel R. Coats, Entomology jcoats@iastate.edu
- Arthi Kanthasamy, Biomedical Sciences arthik@iastate.edu
- Aileen Keating, Animal Science akeating@iastate.edu
- Suzanne Hendrich, FSHN shendric@iastate.edu
- Wilson Rumbeiha, VDPAM rumbeiha@iastate.edu

Administrative Staff
- Linda Wild, Program Coordinator lmwild@iastate.edu
  2102 Molecular Biology
  Phone 515-294-7697    FAX 515-294-6669    1-800-499-1972

We encourage you to contact any of the supervisory committee or staff if we can assist you in any way.

Toxicology Homepage:  http://www.toxicology.iastate.edu
Toxicology Email:     toxmajor@iastate.edu

Academic Web Sites

Iowa State University Graduate College forms
http://www.grad-college.iastate.edu/common/forms/index.php

Iowa State University Homepage
http://www.iastate.edu

Graduate College Homepage
http://www_grad-college.iastate.edu/

Graduate College Handbook
http://www.grad-college.iastate.edu/common/handbook/

Schedule of Classes (by semester)
http://classes.iastate.edu/
TOXICOLOGY GRADUATE STUDENT ORGANIZATION

This organization is composed primarily of Interdepartmental Toxicology Program graduate students. The purpose of this organization is: 1) to foster the exchange of ideas between toxicology graduate students, 2) to strengthen the toxicology program at Iowa State University, and 3) to increase awareness of the toxicology program within the university and abroad. Because the organization is student-run, its focus will be to benefit the toxicology students by providing another avenue for academic and professional enrichment.

Activities that TGSO organizes include: an annual spring seminar series, an annual poster session, fundraisers, hands-on educational activities for high/middle school students, lectures/recruiting activities at local colleges and universities, and barbeques. In addition, TGSO also functions to bring toxicology graduate students together in a social setting and provide an opportunity for interaction outside the laboratory and classroom. This is especially important in an interdepartmental program such as toxicology.

TGSO meetings are held once a month in the Molecular Biology Building. We invite all new toxicology graduate students to participate. For more information you can visit our website at: http://www.stuorg.iastate.edu/tgso/. To find out the next meeting time and location contact one of the following 2006-2007 TGSO officers:

President: Vic Albright    valbrigh@iastate.edu

IOWA CENTER FOR ADVANCED NEUROTOXICOLOGY (ICAN)

Neurotoxicology bridges the scientific fields of toxicology and neuroscience and plays a key role in the health of humans and animals. Neurotoxicology has a tremendous impact on human and animal health industries, the economy and the environment. ICAN center has three major goals: conduct fundamental research on both animal and human related neurotoxicological problems that are significant to Iowa and the U.S., train graduate students and postdoctoral researchers in the field of neurotoxicology, develop technologies and treatment strategies (economic development/translational approach) for diagnosis and treatment of diseases associated with the nervous system). Research areas include environmental neurotoxicant exposurers and their links to neurodegenerative disorders, prion diseases, characterize neurotoxins of parasitic worms for application as parasiticides, pathogenesis and mechanisms of neurodegenerative diseases such as Parkinson’s and Alzheimer’s disease, stroke, retinal degeneration, and storage diseases, applications and toxicology of nanoparticles in nervous sytem, and development of neuroprotective strategies and neuroscience technologies.
Director: Anumantha Kanthasamy, Ph.D.