Institute for Integrative Toxicology
MICHIGAN STATE UNIVERSITY

APPLICATION FOR ADMISSION

Training Program in Environmental and Integrative Toxicological Sciences (EITS)

Date: _____

Student No: _____

E-mail: _____

Program Track: ☐ Environmental
☐ Biomedical
☐ Food Toxicology & Ingredient Safety

Applicant's Name: _____ Gender: M☐ F☐
(Last) (First) (Middle) Birthday: _____

Campus Address: _____

Campus Phone: _____ Home Phone: _____

Home Address: _____

Legal Michigan Resident? ☐Yes ☐No U.S. Citizen? ☐Yes ☐No Permanent Resident Alien? ☐Yes ☐No

Undergraduate Education

University Attended: _____ GPA: _____

Degree Received/Major: _____ Date of Graduation: _____

Graduate Education

In which cooperating (e.g. department) doctoral program are you enrolled? _____ GPA: _____

Date of entry into cooperating PhD Program: _____ Major Professor: _____

Major Curriculum Code (See Attachment C) _____

List the courses you intend to use to fulfill the Environmental and Integrative Toxicological Sciences (EITS) requirements (see Attachment B). (For those courses you have already completed, please include the term/year completed and your grade (0.0 - 4.0). Future changes in this list should be brought immediately to the attention of the EITS Graduate Committee.

EITS Required Course Number and Name	Year Competed or Scheduled	Grade Received

Please list other courses that you have completed since enrolling in your doctoral program at Michigan State.

Course Number and Name	Year Competed or Scheduled	Grade Received

Research Interests:

Please indicate your research interests, including dissertation topic if available. (Be specific, please.)

If your PhD Guidance Committee is established, please list the members and indicate their departmental affiliation. Indicate (*) those faculty affiliated with the Institute for Integrative Toxicology:

Please note that the appropriate major (i.e.- your home program-Environmental Toxicology) should be noted on the form entitled “Report of the Guidance Committee”

Endorsement:

I affirm that the above information is correct and understand that to participate in this program and receive the Doctor of Philosophy Degree in Environmental Toxicology, I must meet the requirements of my cooperating doctoral program and the Program in Environmental and Integrative Toxicological Sciences.

Applicant's Signature Date

As the department chairperson of the applicant's affiliated department, I will recommend the candidate for the degree, in conjunction with the Graduate Director of the Program in Environmental and Integrative Toxicological Sciences, when the necessary requirements have been fulfilled.

Department Chairperson Date

Support for Application:

The completed application and a letter of recommendation from your major thesis advisor in support of your application (see Attachment A, Item No. 2) should be sent to:

EITS Graduate Committee
Institute for Integrative Toxicology
Food Safety Toxicology Building
1129 Farm Lane, 165
Michigan State University
East Lansing, MI 48824

Questions regarding this form should be directed to:
Kasey Baldwin, Graduate Secretary
517-353-6469/kbaldwin@msu.edu

Questions about the EITS doctoral program should be directed to:
John J. LaPres, PhD
Director, Graduate Program in EITS
517-432-9282/lapres@msu.edu

(Retain Attachments for your files.)

ATTACHMENT A

Guidelines for Students in the Training Program in Environmental and Integrative Toxicological Sciences (EITS)

1. Student must be accepted into a cooperating department or doctoral program and have chosen a PhD thesis advisor. Application for admission to the Training Program in Environmental and Integrative Toxicological Sciences is usually made during the first year of graduate school. Application forms can be obtained from the Institute for Integrative Toxicology (IIT).

2. Return the completed application form to the IIT along with a letter of recommendation from your PhD thesis advisor attesting to your motivation toward Toxicology and/or Environmental Science. Application for admission to the Program in Environmental and Integrative Toxicological Sciences should be made at least two years prior to graduation and must be approved by members of the EITS Graduate Committee. A letter notifying you of acceptance will be sent to you by the Graduate Program Director of the IIT.

3. The EITS Graduate Committee meets as needed throughout the year to examine the information in each application to assure that students have proposed a plan of study and research that will meet all program requirements and requirements for graduation. A recommendation to the Director is then made.

4. The PhD Guidance Committee must contain at least two IIT-affiliated faculty (usually the PhD thesis advisor and one other IIT affiliate). Students should notify the IIT of the names of the faculty on the Guidance Committee soon after its formation. Please visit www.iit.msu.edu for a list of affiliated faculty.

5. You must complete the course requirements of the Training Program in Environmental and Integrative Toxicological Sciences (see Attachment B) in addition to all requirements of the major department/cooperating PhD program. The IIT requires a 3.0 GPA in program courses.

6. You must notify the Graduate Director of any intended changes in courses or in dissertation research topic.

7. All courses must be taken for a numerical grade. Credit/no credit designations are not acceptable unless approved by the EITS Graduate Committee.

8. At least six months prior to graduation, you must complete the "Application for Candidacy" form. The completed form should be returned to the IIT for approval by the EITS Graduate Policy Committee. You should send photocopies of the University forms entitled "Report of Guidance Committee" and "Record of Comprehensive Examinations" in support of your candidacy application. (These forms should be signed by the doctoral guidance committee.)

9. A letter will be sent by the Graduate Program Director of the IIT notifying you of acceptance into Candidacy. This indicates you have completed all IIT requirements except for defense of thesis.

10. There is a specific code for each department that indicates that you are getting a joint PhD degree in your Departmental Major and in Environmental Toxicology. Please do not assume that you are already correctly coded. You must fill out the section of the Application for Graduation regarding degree correctly so that the degree reflects joint status (i.e., Major Department-Environmental Toxicology). See attachment C for appropriate codes.

12. You should notify the IIT of graduation and give a forwarding address for future correspondence. Also, please keep the IIT notified of newly acquired positions so the IIT can keep an up-to-date record of positions attained by graduates.

13. Questions regarding the Program should be addressed to Dr. John J. LaPres (or Kasey Baldwin) at the Institute for Integrative Toxicology, Food Safety and Toxicology Building, 1129 Farm Lane, 165, 517-353-6469.

ATTACHMENT B

Training Program in Environmental and Integrative Toxicological Sciences (EITS)

To complete the degree program, the student shall meet the requirements of the department of affiliation (major department) and those of the Program in Environmental and Integrative Toxicological Sciences. Where course requirements overlap, a given course may be counted toward both major department and EITS requirements.

Requirements

1. The topic of the PhD thesis must be in the broad area of environmental toxicology and must be accepted by the EITS Graduate Committee.

2. The student must attend at least 12 seminars approved by the Institute for Integrative Toxicology. In addition, students must complete the course requirements for either the Biomedical, Environmental, or Food Toxicology and Ingredient Safety track listed below with a grade point average of at least 3.0.

Required Courses

Biomedical Track: designed for doctoral students in biomedical disciplines

PHM 803	Chemical Disposition in Mammals (section 001)	1 credit	Fall
PHM 830	Experimental Design and Data Analysis	3 credits	Fall & Summer
PHM 816	Integrative Toxicology: Mechanisms, Pathology and Regulation	3 credits	Fall (odd years)
BMB 961	Selected Topics in Biochemistry II – Genomics (or comparable course)	2 credit	Fall (even years)
TBD	Special Topics in Toxicology	1 credit	

Plus **one** course chosen from a list of approved electives.

Food Toxicology and Ingredient Safety Track: designed for doctoral students interested in the safety of food-borne and consumer product ingredients.

PHM 803	Chemical Disposition in Mammals (Section 001)	1 credit	Fall
PHM 830	Experimental Design and Data Analysis	3 credits	Fall & Summer
PHM 816	Integrative Toxicology: Mechanisms, Pathology, and Regulation	3 credits	Fall (odd years)
FSC 807	Advanced Food Toxicology	3 credits	Fall (even years)
FSC 844	Risk Assessment of Foodborne Chemicals and Toxins	3 credits	Spring (even years)
TBD	Current Issues in Ingredient Safety	1 credit	Fall

Environmental Track: designed for doctoral students with less mammalian biology background (e.g., chemistry, engineering, environmental law, etc.).

CSS 865	Environmental Fate of Organic Contaminants in Soils	3 credits	Spring (even years)
PHM 450	Introduction to Chemical Toxicology	3 credits	Fall, Spring, Summer
	OR		
PHM 816	Integrative Toxicology: Mechanisms, Pathology and Regulation	3 credits	Fall (odd years)
FW 891	New Approaches to Ecological Risk Assessment	3 credits	Spring (even years)
	OR		
FW 431	Ecophysiology and Toxicology of Fish	3 credits	Spring (odd years)
ESP 803	Human and Ecological Health Assessment and Management	3 credits	Fall
	OR		
FSC 843	Exposure Science and Epidemiology	3 credits	Fall (even years)

Plus one course from the following list:

CSUS 836	*Modeling Natural Resource Systems*	*3 credits*	*Spring*
CMSE 801	*Introduction to Computational Modeling*	*3 credits*	*Fall*
CMSE 802	*Methods in Computational Modeling*	*3 credits*	*Spring*
CMSE 821	*Numerical Methods for Differential Equations*	*3 credits*	*Spring*
ENE 822	*Groundwater Modeling*	*3 credits*	*Spring (even years)*
ESP 850	*Introduction to Environmental and Social Systems Modeling*	*1 credits*	*Fall*
ESP 890	*Modeling Environmental and Social Systems*	*2 credits*	*Fall*
BE 849	*Quantitative Human Health Risk Modeling and Analysis for Microbial Stressors*	*3 credits*	*Fall (even years)*
LAW 566Q	*Regulating Environmental Risk or International Environmental Law (open to EITS students in 2018)*	*3 credits*	

Elective Courses

Environmental Dynamics			
BME891 (Sec. 301)	Dynamical Modeling of Biological Systems	3 credits	Fall
CE 481	Environmental Chemistry: Equilibrium Concepts	3 credits	Fall
CE 821	Groundwater Hydraulics	3 credits	Fall
CSS 455	Pollutants in the Soil Environments	3 credits	Fall
ENE 801	Dynamics of Environmental Systems	3 credits	Spring
ENE 822	Groundwater Modeling	3 credits	Spring (even years)
FSC 843	Exposure Science and Epidemiology	3 credits	Fall (even years)
GLG 421	Environmental Geochemistry	4 credits	Spring
GLG 446	Ecosystems Modeling, Water and Food Security	3 credits	Fall
GLG 821	Aqueous Geochemistry	3 credits	Fall (odd years)
MMG 425	Microbial Ecology	3 credits	Spring
IBIO 897	Ecosystem Ecology and Global Change	4 credits	Spring (odd years)
FW 891	New Approaches to Ecological Risk Assessment	3 credits	Spring
Economics, Policy and Law			
AFRE 810	Institutional and Behavioral Economics	3 credits	Fall
AFRE 829	The Economics of Environmental Resources	3 credits	Spring
PPL 808	Policy Development and Administration	3 credits	Spring
Waste Management			
CE 483	Water and Wastewater Engineering	3 credits	Fall
CE 485	Landfill Design	3 credits	Spring
CE 487	Microbiology for Environmental Science and Engineering	3 credits	Spring
ENE 804	Biological Processes in Environmental Engineering	3 credits	Fall
Analytical Chemistry			
CEM 834	Advanced Analytical Chemistry I	3 credits	Fall
CEM 835	Advanced Analytical Chemistry II	3 credits	Fall
CEM 836	Separation Science	3 credits	Spring (odd years)
CEM 845	Structure and Spectroscopy of Organic Compounds	3 credits	Fall
Mechanisms of Toxicity			
ANS 407	Food and Animal Toxicology	3 credits	Fall
EPI 810	Introductory Epidemiology	3 credits	Fall
FSC 807	Advanced Food Toxicology	3 credits	Fall (even years)

ATTACHMENT C

Training Program in Environmental and Integrative Toxicological Sciences (EITS)

Major Curriculum Codes

0472	Animal Science-Environmental Toxicology - CANR
5371	Crop & Soil Sciences-Environmental Toxicology - CANR
0477	Fisheries and Wildlife-Environmental Toxicology - CANR
0474	Food Science-Environmental Toxicology - CANR
5274	Human Nutrition-Environmental Toxicology - CANR
0475	Forestry-Environmental Toxicology - CANR
7071	Cell and Molecular Biology-Environmental Toxicology - CNS
7087	Genetics-Environmental Toxicology - CNS
7121	Neuroscience-Environmental Toxicology - CNS
7029	Biochemistry and Molecular Biology-Environmental Toxicology - CNS
3938	Chemistry-Environmental Toxicology - CNS
3968	Environmental Geosciences-Environmental Toxicology - CNS
7131	Integrative Biology-Environmental Toxicology - CNS
7137	Physiology – Environmental Toxicology - CNS
4916	Comparative Medicine and Integrative Biology-Environmental Toxicology - CVM
4901	Microbiology and Molecular Genetics-Environmental Toxicology - CVM
4902	Pharmacology & Toxicology-Environmental Toxicology - CVM

ATTACHMENT D

Training Program in Environmental and Integrative Toxicological Sciences (EITS)

Cooperating PhD Contacts

Department Chairperson	Graduate Secretary	Graduate Program Directors
Animal Science		www.ans.msu.edu
Pamela Ruegg Animal Science Anthony Hall 474 S. Shaw Lane, Room 1290F East Lansing, Michigan 48824 Phone: 517.355.8383 Email: plruegg@msu.edu	Karla Macelli Animal Science Anthony Hall 474 S. Shaw Lane, Room 1290G East Lansing, Michigan 48824 Phone: 517.355.8417 Email: macellik@msu.edu	Cathy Ernst Animal Science Anthony Hall 474 S. Shaw Lane, Room 1205H East Lansing, Michigan 48824 Phone: 517.432.1941 Email: ernstc@msu.edu
Biochemistry and Molecular Biology		www.bmb.msu.edu
Erich Grotewold Biochemistry & Molecular Biology Biochemistry Building 603 Wilson Road, Room 201A East Lansing, Michigan 48824 Phone: 517.353.0804 Email: grotewol@msu.edu	Jessica Lawrence Biochemistry & Molecular Biology Biochemistry Building 603 Wilson Road, Room 212 East Lansing, Michigan 48824 Phone: 517.353.0807 Email: jesslaw@msu.edu	Jon Kaguni Biochemistry & Molecular Biology Biochemistry Building 603 Wilson Road, Room 322 East Lansing, Michigan 48824 Phone: 517.353.6721 Email: kaguni@msu.edu
Cell and Molecular Biology		www.cmb.msu.edu
	Alaina Burghardt Biomedical Physical Sciences Building 567 Wilson Road, Room 2168 East Lansing, Michigan 48824 Phone: 517.884.5299 Email: cmb@cns.msu.edu	Margaret (Peggy) Petroff Biomedical Physical Sciences Building 567 Wilson Road, Room 2240 East Lansing, Michigan 48824 Phone: 517.432.1385 Email: petrof10@msu.edu
Chemistry		www.chemistry.msu.edu
Robert Maleczka Department of Chemistry Chemistry Building 578 S. Shaw Lane, Room 485 East Lansing, Michigan 48824 Phone: 517.353-0834 Email: maleczka@msu.edu	Anna Osborn Department of Chemistry Chemistry Building 578 S. Shaw Lane, Room 320 East Lansing, Michigan 48824 Phone: 517.353.1092 Email: osborna3@msu.edu	Gary John Blanchard Department of Chemistry Chemistry Building 578 S. Shaw Lane, Room 328 East Lansing, Michigan 48824 Phone: 517.353.1105 Email:blanchard@chemistry.msu.edu

Department Chairperson	Graduate Secretary	Graduate Program Directors
Comparative Medicine & Integrative Biology www.cvm.msu.edu/future-students/graduate-programs/cmib		
	Dimity Palazzola Comparative Medicine and Integrative Biology Veterinary Medical Center 784 Wilson Road, Room G326 East Lansing, Michigan 48824 Phone: 517.353.3118 Email: palazz39@msu.edu	Colleen Hegg Comparative Medicine and Integrative Biology Life Sciences Building 1355 Bogue St., Room B439B East Lansing, Michigan 48824 Phone: 517.432.2339 Email: hegg@msu.edu
Earth and Environmental Sciences https://ees.natsci.msu.edu		
David Hyndman Geological Sciences Natural Sciences Building 288 Farm Lane Road, Room 206 East Lansing, Michigan 48824 Phone: 517.355.4626 Email: hyndman@msu.edu	Pam Robinson Geological Sciences Natural Sciences Building 288 Farm Lane Road, Room 207 East Lansing, Michigan 48824 Phone: 517.353.3271 Email: robin433@msu.edu	Allen McNamara Geological Sciences Natural Sciences Building 288 Farm Lane Road, Room 206 East Lansing, Michigan 48824 Phone: 517.353.3271 Email: allenmc@msu.edu
Fisheries and Wildlife www.fw.msu.edu		
Scott Loveridge Fisheries and Wildlife Natural Resources Building 480 Wilson Road, Room 4 East Lansing, Michigan 48824 Phone: 517.353.2022 Email: loverid2@msu.edu	Jill Cruth Fisheries and Wildlife Natural Resources Building 480 Wilson Road, Room 40 East Lansing, Michigan 48824 Phone: 517.353.9091 Email: cruth@msu.edu	James Bence Fisheries and Wildlife Natural Resources Building 480 Wilson Road, Room 11C East Lansing, Michigan 48824 Phone: 517.432.3812 Email: bence@msu.edu
Food Sciences/Human Nutrition www.fshn.msu.edu		
Nancy Turner Food Science and Human Nutrition G.M. Trout Building 469 Wilson Road, Room 204 East Lansing, Michigan 48824 Phone: 517.355.8474 Email: ndturner@msu.edu	Marcia Hardaker Food Science and Human Nutrition G.M. Trout Building 469 Wilson Road, Room 106 East Lansing, Michigan 48824 Phone: 517.353.3323 Email: hardake1@msu.edu	Elizabeth M. Gardner Food Science and Human Nutrition G.M. Trout Building 469 Wilson Road, Room 236A East Lansing, Michigan 48824 Phone: 517.353.334 Email: egardner@msu.edu

Department Chairperson	Graduate Secretary	Graduate Program Directors
Forestry		www.for.msu.edu
Richard Kobe Forestry Natural Resources Building 480 Wilson Road, Room 109 East Lansing, Michigan 48824 Phone: 517.355.0092 Email: kobe@msu.edu	Katie James Forestry Natural Resources Building 480 Wilson Road, Room 120 East Lansing, Michigan 48824 Phone: 517.353.5199 Email: katjames@msu.edu	David Rothstein Forestry Natural Resources 480 Wilson Road, Room 210C East Lansing, Michigan 48824 Phone: 517.432.3353 Email: rothste2@msu.edu
Genetics		www.genetics.msu.edu
	Alaina Burghardt Genetics Program Biomedical Physical Sciences Building 567 Wilson Road, Room 2240A East Lansing, Michigan 48824 Phone: 517.884.5299 Email: mannieal@msu.edu	Cathy Ernst Genetics Program Biomedical Physical Sciences Building 567 Wilson Road, Room 1205H East Lansing, Michigan 48824 Phone: 517.432.1941 Email: ernstc@msu.edu
Integrative Biology		www.integrativebiology.natsci.msu.edu
Thomas Getty Department of Zoology Natural Sciences Building 288 Farm Lane, Room 218 East Lansing, Michigan 48824 Phone: 517.353.9864 Email: getty@msu.edu	Lisa Craft Department of Zoology Natural Sciences Building 288 Farm Lane, Room 203 East Lansing, Michigan 48824 Phone: 517.353.4642 Email: craftl@msu.edu	Danielle Whittaker Department of Zoology Natural Sciences Building 288 Farm Lane, Room 322 East Lansing, Michigan 48824 Phone: 517.884-2555 Email: djwhitta@msu.edu
Microbiology and Molecular Genetics		www.mmg.msu.edu
Victor DiRita Microbiology & Molecular Genetics Biomedical Physical Sciences Building 567 Wilson Road, Room 2215C East Lansing, Michigan 48824 Phone: 517.884.5292 Email: diritavi@msu.edu	Rose Ann Bills Microbiology & Molecular Genetics Biomedical Physical Sciences Building 567 Wilson Road, Room 2215 East Lansing, Michigan 48824 Phone: 517.884.5288 Email: marshro3@msu.edu	Donna Koslowsky Microbiology & Molecular Genetics Biomedical Physical Sciences Building 567 Wilson Road, Room 5174 East Lansing, Michigan 48824 Phone: 517.884.5353 Email: koslowsk@msu.edu
Neuroscience		www.neuroscience.msu.edu
Jim Galligan Neuroscience Program Giltner Hall 293 Farm Lane, Room 108 East Lansing, Michigan 48824	Eleri Thomas Neuroscience Program Giltner Hall 293 Farm Lane, Room 108 East Lansing, Michigan 48824	Greg Swain Neuroscience Program Chemistry 578 S. Shaw Ln Room 314 East Lansing, Michigan 48824

Department Chairperson	Graduate Secretary	Graduate Program Directors
Phone: 517.355.8947 Email: galliga1@msu.edu	Phone: 517.884.9523 Email: thom1625@msu.edu	Phone: 517.353.1090 Email: swaing@msu.edu
Pharmacology and Toxicology		**www.phmtox.msu.edu**
Rick Neubig Pharmacology and Toxicology Life Sciences Building 1355 Bogue Street, Room B423 East Lansing, Michigan 48824 Phone: 517.353.7147 Email: rneubig@msu.edu	Jake Wier Pharmacology and Toxicology Life Sciences Building 1355 Bogue Street, Room B305 East Lansing, Michigan 48824 Phone: 517.353.9619 Email: wierjake@msu.edu	Anne Dorrance Pharmacology and Toxicology Life Sciences Building 1355 Bogue Street, Room B340 East Lansing, Michigan 48824 Phone: 517.432.7403 Email: dorranc3@msu.edu
Physiology		**www.physiology.natsci.msu.edu**
Charles “Lee” Cox Biomedical Physical Sciences Bldg. 567 Wilson Road, Room 2201E East Lansing, Michigan 48824 Phone: 517.884.5050 Email: coxlee@msu.edu	Jasmine Jackson Biomedical Physical Sciences 567 Wilson Road, Room 2205 East Lansing, Michigan 48824 Phone: 517.884.5075 Email: jjack578@msu.edu	Andrea Doseff Biomedical Physical Sciences 567 Wilson Road, Room 4173 East Lansing, Michigan 48824 Phone: 517.884.5155 Email: doseffan@msu.edu
Plant, Soil and Microbial Sciences		**www.psm.msu.edu**
Brian Horgan Crop and Soil Sciences Plant and Soil Sciences Building 1066 Bogue Street, Room 286 East Lansing, Michigan 48824 Phone: 517.355.0120 Email: horganb@msu.edu	Linda Colon (PSS Students) Center for Integrated Plant Systems East Lansing, Michigan 48824 Phone: 517.353.8645 Email: colon@msu.edu Mackenzie Graham (PBGB & CSS Students) Plant and Soil Sciences Bldg. Room A278 Phone: 517.353.0111 Email: mart1708@msu.edu	Karen Renner Crop and Soil Sciences Plant and Soil Sciences Building 1066 Bogue Street, Room 468 East Lansing, Michigan 48824 Phone: 517.353.0233 Email: renner@msu.edu