

# Handbook for Graduate Studies in the Department of Physiology



**Administered by**

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Osteopathic Medicine**

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## I. PROGRAM OVERVIEW

### A. Mission and Organization

**What is Physiology?** The discipline of physiology today spans molecular, cellular and integrative approaches and is uniquely positioned among the biomedical sciences to address the most fundamental aspects of biology as well as the most practical and applied problems of human and animal health. Because of this unique perspective, physiologists find themselves in demand as university, pharmaceutical and government researchers; professors and teachers; and consultants in an increasingly health-conscious world. As symbolized by the Departmental logo, "From Molecules to Man," modern physiologists investigate the entire array of biological processes, from the biochemical organization of the genome to the processing of complex information into memory engrams by the brain. Physiologists examine the means by which the vast array of molecular and cellular events integrate the fundamental mechanisms and principles that govern organ and behavioral functions of human and animal systems. In addition, physiologists examine how dysfunctions in molecular and cellular events lead to diseases including chronic inflammatory diseases, neuroscience, obesity, diabetes and other metabolic disorders, glaucoma, asthma, cancer, hypertension, cardiovascular disease and other health conditions.

**What is the Mission of the MSU Department of Physiology?** Michigan State University, founded in 1855 as the first land grant college, has awarded diplomas in undergraduate and graduate physiology since 1949. The Physiology Department serves the university in several capacities including: 1) offering degree programs at the undergraduate and graduate level; 2) teaching of "service courses" designed to meet the specific needs of other degree programs such as Biological Sciences, Nursing, Medical Technology, Human Medicine, Osteopathic Medicine, and Veterinary Medicine; and 3) conducting basic and applied physiological research. In 1982, the University's biophysics program was blended into the Department of Physiology. The Department presently has collaborative and administrative ties to the Colleges of Natural Science, Human Medicine and Osteopathic Medicine.

**How do Molecular, Cellular and Integrative Physiology Graduate Students Contribute to This Mission?** All Molecular, Cellular and Integrative Physiology (MCIP) students are enrolled in the College of Natural Science while working on their graduate degree. The Ph.D. and M.S. programs emphasize original research that culminates in the preparation of a thesis (Master's Program) or a dissertation (Doctoral Program). Most research is done in faculty laboratories, but the student is encouraged to make maximum use of the Department's close cooperation with other science Departments and University resources. In support of these research efforts, faculty and graduate students have received significant extramural funding from the National Institutes of Health, National Science Foundation, National Aeronautic and Space Administration, American Heart Association, American Diabetes Foundation, Juvenile Diabetes Foundation-International, Arthritis Foundation, and Department of Defense-Army, as well as NIH Fogarty Foundation Sr. International Fellowships.

### B. Diversity, Equity and Inclusion

The Department of Physiology at Michigan State University embraces diversity in its faculty, students and staff. We are committed to providing an environment that nurtures and values inclusion of different backgrounds, ideas, perspectives and skills. Engaging the unique and diverse contributions of our department members results in innovation and excellence in our research, teaching, service and outreach. We take pride in the strength of our diversity and our ability to work together with respect and equality.

### C. Expectations of the Department: Meeting and Committee Participation

#### 1. Seminars and Meetings

Seminars are held regularly in the Department of Physiology. All graduate students and faculty are expected to attend and participate. Seminars are presented by invited faculty speakers from other institutions, faculty members from our Department and by trainees.

## **2. Professional Meetings**

Graduate students are encouraged to participate in state, national, and international meetings whenever possible, and to present talks at these meetings. Our graduate students have presented papers at meetings of the American Association for Cancer Research, the Society for Neuroscience, Federation of American Societies for Experimental Biology, the American Physiological Society, and discipline-specific Gordon and Keystone conferences, as well as many others.

## **3. Committee Participation**

Graduate students in physiology have the option of participating in the following committees:

### **a. Molecular, Cellular and Integrative Physiology Graduate Student Committee**

This committee is composed of five MCIP graduate students. Its function is:

- i. To encourage student assemblies for open discussion of university, college and Departmental regulations and policies.
- ii. To communicate information queries and opinions between the faculty and student body.
- iii. To appoint representatives to fill vacancies on various university, college and Department committees.
- iv. To sponsor social functions.
- v. Select one graduate student to represent the department at the College of Natural Science Deans Student Advisory Council
- vi. Select one graduate student to represent the physiology department graduate students at the University level at the Council of Graduate Students (COGS)
- vii. One member of the MCIP Graduate Student Committee will be designated as a representative of the Physiology Diversity, Equity and Inclusion Committee and will participate in that committee's activities.

### **b. Graduate Affairs Committee**

The committee includes the Director of Research and Graduate Studies and a group of faculty appointed by the Chair of Physiology. One faculty member chairs the committee. The responsibilities of this committee are:

- i. To review and evaluate the curriculum and courses for physiology students,
- ii. To give final approval of individual graduate plan (i.e., approve Guidance Committee Report Forms).
- iii. To administer the Departmental Comprehensive Examination.
- iv. To advise in the admission of new Ph.D. graduate students and to make decisions of admission of Master's students.
- v. To select departmental graduate awards.

## **4. Graduate Student Elections**

Nominations for representatives to the Graduate Student Committee will be accepted beginning the first day of classes fall semester. Names of nominees will be posted as received.

After nominees are identified, voting will begin the next day and continue for three class days ending at 5:00 p.m. the third day. The Graduate Student Committee, which is responsible for supervision of the elections and counting the ballots, will announce the results within three class days. A student may run for no more than two positions. Single nominations for any position will be filled by default. No write-in votes will be accepted. The first meeting of the newly elected Graduate Student Committee will be held during the third week of classes fall semester. At this time the Graduate Student Committee will elect a chairperson who will be responsible for reporting the election results to the Departmental chairperson.

## D. Expectations of the Department: Academics

To complete the Molecular, Cellular and Integrative Physiology doctoral program, each student must demonstrate a breadth of knowledge of physiology and depth of knowledge in the student's chosen field of physiology, and must demonstrate that they can conceive, execute, and report an original body of research.

### 1. Standards

- a. Three (3) grades below 3.0 in the entire graduate program will remove the student from degree candidacy.
- b. The student must have at least a 3.0 grade point average over the entire graduate program.
- c. The student must adhere to all other university and college regulations for their graduate program as outlined in the [Michigan State University Academic Programs](#).

### 2. Curriculum and Coursework

- a. A course grade of 3.0 is considered the minimum satisfactory academic performance for a graduate student enrolled in any graduate level course offered by the Department of Physiology.
- b. The minimum cumulative grade-point average required for graduation is 3.0. The minimum level at which course credit is awarded is 2.0, but within particular graduate programs grades of 2.5 and 3.0 may be established as the minimum for earning course credit. Also, the number of 2.0 grades acceptable for course credit is expressly restricted to two.
- c. Students in the **Master's Program** must not accumulate more than 2 grades below 3.0 in courses earning credit toward the Master's degree (Department regulation). If either of these criteria is not met, the student will be dis-enrolled from the Program. MS students are not required to remediate a course in which they receive a grade below 3.0, if their overall GPA remains at 3.0 or above.
- d. Students in the **Doctoral Program** must have at least a 3.0 grade in all required core courses (see table in Section III-C-3d) . If the student obtains less than 3.0 grade in any of these courses, they have 12 calendar months in which to remediate by retaking the course, or they will be dismissed from the Doctoral Program. Note: This may require override permission from the Dean's office if the grade is 2.0-2.5.

### 3. Grading Policies for Graduate Level Courses

Department of Physiology Graduate Policy for 400-900 Level Courses:

- a. Each instructor in any course is considered to be the only authority for evaluating and/or assigning grades for his/her own examination(s).
- b. For courses involving more than one instructor, the designated course coordinator is responsible for formulating and announcing policies and reaching decisions associated with the assignment of course grades which represent a consensus among all instructors in that course.
- c. The course instructor, or, if the course involves more than one instructor, the course coordinator, is responsible for informing all enrolled students in the course in writing on the first day of regularly scheduled instruction, the:
  - i. dates and locations for all examinations in the course,
  - ii. methods and policies for makeup examinations and/or remedial work in the event a student does not complete a regularly scheduled examination
  - iii. methods and policies he/she will use in assigning grades for individual examinations and for the course itself.
- d. The person(s) involved in assigning grades will be aware of the university policies in "Grading Systems," General Procedures and Regulations, Academic Programs, Michigan State University: <https://reg.msu.edu/AcademicPrograms/>

#### 4. Assessment of Progress

Before completing their laboratory rotations, students desiring to join the Molecular, Cellular and Integrative Physiology graduate program must inform the Physiology Graduate Program Director of their intent to do so, and get approval of their proposed Thesis (Master's Program) or Dissertation (Doctoral Program) Research Advisor.

- a. Students wishing to join the Molecular, Cellular and Integrative Physiology Graduate Program, will be required to submit a Memorandum of Understanding (MOU) signed by the student, the Research Advisor, the Director of Research and Graduate Studies, the Chair of the Physiology Department, and the Chair of the Department of the research mentor, if the mentor's primary appointment resides outside of the Physiology Department.
- b. Students are required to submit an **ANNUAL GRADUATE STUDENT EVALUATION FORM** (found on D2L in "**PSL Graduate Students & Mentors**") signed by both the Research Advisor and student. The annual evaluation will be placed in the student's file in the department/unit office. Students who wish to appeal any part of the major professor's evaluation may do so in writing to the Director of Research and Graduate Studies within 2 weeks of receiving the report. If this does not resolve the issue, a meeting will be arranged between the student, their Research Advisor, and the Director of Research and Graduate Studies at the earliest time convenient for all parties. Failure to reach a consensus at this level, will result in the matter being taken under consideration by the Graduate Affairs Committee for final resolution.
- c. Mastery of the materials at different stages of the student's graduate program are assessed by successful completion of:
  - i. the required coursework, and any additional coursework requested by the student's Guidance Committee.
  - ii. the Comprehensive Exam at by the end of the fall semester in year 3 from the time that the student joined the MSU Ph.D. graduate program
  - iii. the annual Guidance Committee meeting
  - iv. presentation and defense of their thesis (Master's Program) or Dissertation (Doctoral Program)

More detail on this process is provided in sections III, IV, V and VI.



## E. Summary

Students are urged to make maximum use of the consultation available through their major Research Advisor, Guidance Committee, and the Director of Research and Graduate Studies.

In general, the program of study leading to a Master's degree has fairly rigid university requirements. The student in consultation with their major Thesis Research Advisor and Guidance Committee must design a program of study to fall within these requirements. While the overall M.S. degree requirements are largely determined by the university (total number of credits=30; minimum of research credits=4; credits at the 800 level or above= 51%), some flexibility remains, in regard to selection of academic courses.

Under either degree program, the major Research Advisor or Guidance Committee has the authority to interpret the Departmental guidelines, as set forth in Section III to best suit the needs of the individual student. However, final certification for the M.S. or Ph.D. degree or any radical departure from the suggested program of study as outlined in the Department manual will need the approval of the Department chairperson and the Director of Research and Graduate Studies. In addition to the Departmental regulations, the student must satisfactorily complete all college and university requirements for a given degree and in general these requirements are fixed and are not subject to modification. A student is referred to the [Michigan State University Academic Programs](https://reg.msu.edu/AcademicPrograms/) for a complete description of the requirements, which override any inconsistent provisions of the particular departmental handbook: <https://reg.msu.edu/AcademicPrograms/>

## II. PROGRAM COMPONENTS / PLAN OPTIONS

### A. Programs of Study

The Department of Physiology offers graduate studies at 3 different levels via the Linked BS/MS, Masters, and Doctoral program. Each of these plans is described briefly below, and in detail in Section III.

#### 1. Linked Bachelor's/Master's (BS/MS) Program

The BS/MS degree in Physiology offers a unique opportunity to MSU students for advanced training in Physiology. This program is only open to undergraduates majoring in Physiology. More information about this program can be found [here](#). Students beginning in their junior year can enter a research laboratory and begin either a bench-based or library-based research project. The required graduate courses can begin after the student successfully completes PSL 431/432 and the BMB Biochemistry course requirement. The student is advised to visit the Physiology Department web page to review the Physiology faculty who are training graduate students and their research interests: <https://physiology.natsci.msu.edu/directory/faculty/>

#### 2. Master's Program

Students within the Physiology Master's Program must complete 30 course credits. The program of study is planned by the student in consultation with their Research Advisor and an advisory committee that includes no fewer than two additional faculty members of the Department of Physiology. Completion of an original research problem and the writing of an acceptable thesis based upon at least 8 credits of research are required (Plan A, research-based Master's).

#### 3. Doctoral Program

The primary objective of the doctoral program is to provide the student with a thorough knowledge of integrative, systemic, cell, and molecular physiology, to prepare them for independent research and to provide scholarly experience in one of the specialized areas of physiology. The Program typically can be completed in about 5 years, includes prescribed coursework, a teaching requirement, completion of the Comprehensive Exam, a written dissertation, and the oral presentation (see Section III).

#### **4. Dual Major**

The Department recognizes that for certain students there is a distinct, professional advantage in earning a Ph.D. degree which is awarded jointly with another Department or program. Implementation of such a program requires the prior approval of the Graduate Affairs Committee of the Physiology Department, the corresponding committee or program in the other Department, and the Dean of the Graduate School. However, such students must satisfy all the requirements for a Ph.D. degree in Molecular, Cellular and Integrative Physiology.

### **III. DEGREE REQUIREMENTS**

#### **A. Graduate Program Requirements, Application and Grading Process**

##### **1. General Entrance Requirements**

A broad background in the basic sciences, including biology, chemistry, physics and mathematics is essential for graduate studies in Molecular, Cellular and Integrative Physiology. An undergraduate major specifically in physiology is not required. Students from undergraduate or professional degrees in the animal, biological or physical sciences, medical technology, veterinary medicine, human medicine, and similar fields are qualified for admission provided they meet the minimum requirements. These include coursework in:

- a. Physiology, biology, or zoology
- b. Physics, including laboratory experience
- c. Chemistry, including quantitative analysis and organic chemistry
- d. Mathematics through integral calculus
- e. Biochemistry
- f. Physical chemistry and computer science are recommended, but not required

##### **2. Application Process**

###### **a. Linked Bachelor's/Master's (BS/MS) Program**

Applications for admission into the Linked BS/MS Program must be made during the prior spring semester for an anticipated spring graduation, or the prior fall semester for an anticipated fall graduation to allow admission before the final semester as a Physiology undergraduate. Admission to the program requires a minimum undergraduate grade-point average of 3.5 and an approved program of study for the Master of Science degree in Physiology at the time of admission. Admission to the Linked BS/MS program allows the application of up to 9 credits toward the Master's Program for qualifying 400-level and above course work taken at the undergraduate level at Michigan State University or at an external accredited institution. The number of approved credits, not to exceed 9, are applied toward the credit requirement of the Master's Degree. Credits applied to the Linked Bachelor's-Master's program are not eligible to be applied to any other graduate degree

program. The course/thesis requirements for the MS component of the BS/MS degree are described in Section III along with the Master's Program.

The student must meet with the Physiology Graduate Program Director to agree upon the BS/MS plan of study and to agree upon the courses (up to 9 credits) that will be counted toward both degrees.

#### **b. Master's Program Application Process**

Submit all application materials/forms, which are available via the Department of Physiology website: [www.psl.msu.edu](http://www.psl.msu.edu). (Students → Graduate → Molecular, Cellular and Integrative Physiology M.S. Program). These include:

- i. Graduate School Application, Statement of Purpose, and required fee
- ii. Submit Department Questionnaire
- iii. Submit 2 Letters of Reference, one of which must come from the proposed Master's Research Advisor indicating their commitment to training the student and a summary of the proposed Master's project.
- iv. Submit official transcripts
- v. All international applicants and applicants whose first language is not English must be proficient in English as a condition for regular admission to MSU. Refer to Graduate School English Language Competency Guidelines for more information: <https://grad.msu.edu/english-language-competency>
- vi. GRE or other Professional degree scores (MCAT, VCAT, etc.) are not required, but applicants may provide them if they wish to demonstrate academic ability.
- vii. GRE/TOEFL Codes:
  - MSU Institutional Code = 1465
  - Physiology Departmental Code = 0217
- viii. Graduate School Application-codes:
  - BS/MS Program: use 3860 and note BS/MS
  - Masters Program (CNS: 3860; CHM: 2804; CVM: 4804)
- ix. Academic requirements: undergraduate and/or graduate GPA of 3.0 or above.

Students not meeting all of the pre-requisites for admission to the MS Program may be admitted on a provisional basis, as determined by the Graduate Affairs Committee (see B.2 below).

#### **c. Doctoral Program Application Process**

Applications are handled via the BioMolecular Science Program.  
<https://biomolecular.natsci.msu.edu/>

### **3. Transferring Credits**

- a. Students are able to transfer a maximum of 9 approved credits from the Undergraduate Level to a linked Bachelor's-Master's degree program.  
<http://www.reg.msu.edu/Read/UCC/unlinkedtransfer.pdf>
- b. Students are able to transfer a maximum of 9 approved credits to a Master's Degree Program from transfer courses, Lifelong Education enrollment status, and the Graduate Certificate level with no more than 9 credits from each category, except for 12 graduate certificate credits permitted in the College of Education. See section on "Transfer Credits":  
<https://reg.msu.edu/AcademicPrograms/Print.aspx?Section=373>

## B. Admission Process

### 1. Admission Process by Degree

**a. Master's Program Admissions:**

Upon receipt of the completed application for admission to graduate school, the members of the Graduate Affairs Committee (GAC) will review the application and recommend one of the following actions: (1) further consideration for admission, or (2) refuse admission. If further consideration is recommended, the applicant may be invited for an interview, and/or the application will be evaluated by the faculty members in the sub disciplinary area(s) in which the applicant expresses an interest. The GAC then makes a final decision to (1) admit on a regular basis, (2) admit on a provisional basis, or (3) refuse admission. The Department complies with the federal mandate, Section 504 of the Rehabilitation Act of 1973, D.H.E.W., which prohibits discrimination.

**b. Doctoral Program Admissions:** Admissions are handled via the BioMolecular Science Program. <https://biomolecular.natsci.msu.edu/>

### 2. Regular Admission

Students admitted to the program on a regular basis are deemed by the Graduate Affairs Committee to have an adequate background to pursue graduate study in the Department of Physiology. Typically, students are admitted in the fall and spring semesters. Attainment of an Master's degree is not a prerequisite for entrance into the Ph.D. program. In general, the student's academic background should be equivalent to the requirements for the Bachelor's degree in physiology as outlined above. Students admitted to the Ph.D. program will be supplied with laboratory space and facilities, and are also eligible to apply to the Department for financial support.

Occasionally, students may be required upon admission to take courses to strengthen their background. They will also be advised to complete those required collateral courses within their first year. The inclusion of required collaterals does not change the student's status. These courses, which are not part of the formal Graduate Program curriculum (see below), do not count toward the MS or PhD degrees.

### 3. Provisional Admission

Students whose available records are incomplete or who have an inadequate background to pursue graduate study in Molecular, Cellular and Integrative Physiology but whose academic performance warrants their admission to the graduate program will be admitted on a provisional basis. The Graduate

Affairs Committee will set forth provisions in the form of additional course work. At the time of satisfactory completion of the collateral courses, the student may petition the Graduate Affairs Committee for transfer to regular status. A student may not receive a degree while on provisional admission status. Admission to the Department on a provisional basis gives the student all the rights and responsibilities given to a student on a regular basis.

## C. Specific Program Requirements and Detailed Descriptions

### 1. Linked Bachelor/Master's Program

Students within the Linked BS/MS Program in Physiology must satisfy all of the requirements for the BS Degree in Physiology as well as all of the requirements for the MS Degree in Physiology, with the qualification that up to 9 credits of qualifying 400-level and above course work taken at the undergraduate level at Michigan State University or at an external accredited institution may be applied toward the credit requirement of the Master's Degree. See <https://reg.msu.edu/AcademicPrograms/Print.aspx?Section=12060>

## 2. Master's Program

### a. Requirements of the Master's Program

During the Master's program, each student must demonstrate a breadth of knowledge of physiology, depth of knowledge in the student's chosen field of physiology, and must demonstrate that they can conceive, execute, and report an original body of research. To these ends, each Master's candidate must successfully meet the following criteria:

- i. Establish a GradPlan record to document all progress towards the degree (coursework, RCR, committee meetings, thesis defense)
- ii. Complete the required coursework and credits
- iii. Complete and document responsible conduct of research (RCR) annually
- iv. Hold annual meeting with Guidance Committee and Research Advisor to report on progress toward degree. The Research Advisor, in consultation with the Guidance Committee, will prepare a summary report signed by Committee members and Research Advisor and student. It is the responsibility of the student to ensure that the **Report of the Guidance Committee** form (See Appendix) is submitted within two weeks of the meeting to the department office.
- v. Submit a written thesis based on original research that makes a significant contribution to knowledge, present the thesis research at a public seminar, and pass the private final oral examination by the Guidance Committee, including formal acceptance of the written thesis (See Part VI, Section B).

### b. Duration of the Master's Program

- i. The nominal duration of the program is four semesters (see schedule below)
- ii. The actual time needed to complete all program requirements will vary from one student to another, however, the MS degree must be completed within six years, but can be completed in two years or less.

### c. Credit Requirements for the Master's Program

- i. Thirty (30) credits beyond the Bachelor's degree; minimum 11 credits of required core coursework. In addition, students must complete 8-15 credits of thesis research (PSL 899). At least 4 credits and up to 11 credits must be filled by elective courses that have been approved by the Physiology Graduate Program Director in consultation with the research mentor.
- i. Sixteen (16) credits minimum at the 800-900 level.
- ii. Transferring Credits: Students are able to transfer a maximum total of 9 credits to a Master's Degree Program from transfer courses, Lifelong Education enrollment status, or the Graduate Certificate level.

<https://reg.msu.edu/AcademicPrograms/Print.aspx?Section=383>

### d. Formal Course Work of the Master's Program

#### Required Courses for Master's Students

Physiology (PSL) 813: Molecular Mechanisms of Human Disease and Targeted Therapies	3 credits
Physiology (PSL) 828: Cellular and Integrative Physiology I	3 credits
Physiology (PSL) 829: Cellular and Integrative Physiology II	3 credits
Physiology (PSL) 950: Topics in Physiology (2 semesters; 1 cr/sem)	2 credits
Physiology (PSL) 899: Master's Thesis Research	8-15 credits
Elective Credits (approved by Physiology Graduate Director in consultation with the mentor)	4-11 credits
	30 total

Students entering the PSL Master's program who already have successfully completed any of these required courses must select additional, advanced courses, with approval of the Guidance Committee and Director of Research and Graduate Studies.

**e. Master's Program Deadlines**

REQUIREMENT	DUE DATE/TIME LINE
Select a Thesis Research Advisor	Before acceptance into program <u>OR</u> within the first semester
Secure a Guidance Committee	After selecting a Thesis Research Advisor
File Guidance Committee Report	After first committee meeting, then annually; Filed by advisor
Defense of Master's Thesis	Within 6 years from entry into the Master's program

Year	Fall	Spring
1	<p><b>PSL 829:</b> Cellular and Integrative Phys II</p> <p><b>PSL 813:</b> Molecular Mechanisms of Human Disease (if offered, fall of odd years) or <b>Elective</b></p> <p><b>PSL 899:</b> Thesis Research (Recommend 3 credits or as many needed to bring total up to semester credit minimum)</p> <p>Guidance Committee Selection</p>	<p><b>PSL 828:</b> Cellular and Integrative Phys I</p> <p><b>PSL 899:</b> Thesis Research (Recommend 3 credits or as many needed to bring total up to semester credit minimum)</p> <p><b>PSL 950:</b> Topics in Physiology</p> <p>First Guidance Committee Meeting</p>
2	<p><b>PSL 813:</b> Molecular Mechanisms of Human Disease (if offered, fall of odd years) or <b>Elective</b></p> <p><b>PSL 950:</b> Topics in Physiology</p> <p><b>PSL 899:</b> Thesis Research (Recommend 3 credits or as many needed to bring total up to semester credit minimum)</p>	<p><b>PSL 899:</b> Thesis Research (Recommend 3 credits or as many needed to bring total up to semester credit minimum)</p> <p>Defend Master's Thesis</p>
<p>Notes:</p> <ul style="list-style-type: none"> <li>Electives can be taken in any semester, depending on course availability</li> <li>Can continue beyond 3 year if needed, but must be Registered each fall and spring semester for at least the MS credit minimum, and can use PSL 899 credits during these semesters to fulfil it.</li> <li>Defense can be in the summer semester; if so, you must enroll in the minimum number credits to be considered a full time student during the summer semester. Consult MCIP leaders for specific guidance.</li> <li>Defense must occur within 6 years from entry into the Master's program</li> </ul>		

- f. **Master's Program Responsible Conduct of Research (RCR) Requirements**  
 Per University policy, all graduate students must complete the RCR requirements listed below. Completion of training must be documented in the relevant database (Grad Plan)  
 Adapted from <https://grad.msu.edu/researchintegrity>

- Items in black text are tracked automatically in Ability
- Items in red, blue, purple text are tracked by MCIP Program in Grad Info

## YEAR 1

Due by the  
end of the  
student's  
1<sup>st</sup> year

### Complete These 4 CITI Modules

- Introduction to the Responsible Conduct of Research
- Authorship
- Plagiarism
- Research Misconduct

### Complete 3 Hours of Discussion-Based Training

*This requirement can be met in the following ways:*

- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- [Workshops offered by the Graduate School](#) (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

## YEAR 2

Due by the  
end of the  
student's  
2<sup>nd</sup> year  
and see  
NOTE  
below

### Complete 3 of the CITI Modules From The Following List

- Collaborative Research
- Conflicts of Interest
- Data Management
- Mentoring
- Peer Review
- Financial Responsibility

### Complete 3 Hours of Discussion-Based Training

*This requirement can be met in the following ways:*

- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- [Workshops offered by the Graduate School](#) (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

**NOTE:** You must have completed at least 6 hours total of discussion-based training before graduation.

## YEAR 3 and EACH YEAR AFTER

### Complete 3 Hours of Annual Refresher Training

*This requirement can be met in the following ways:*

- Complete additional CITI modules (from the supplemental modules listed in CITI, each module counts as 45 min)
- Completing additional [face-to-face workshops from the Graduate School](#)
- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

### 3. Doctoral Program

#### a. Requirements of the Doctoral Program

During the doctoral program, each student must demonstrate a breadth of knowledge of physiology, depth of knowledge in the student's chosen field of physiology, and must demonstrate that they can conceive, execute, and report an original body of research. To these ends, each Ph.D. candidate must successfully meet the following criteria:

- i. Establish GradPlan record to document all progress towards the degree (coursework, RCR, committee meetings, comprehensive and dissertation exams)
- ii. Complete the required coursework and credits (see 3d below)
- iii. Complete and document responsible conduct of research (RCR) annually (see 3e below)
- iv. Complete the required teaching experience, as applicable (see 3f below).
- v. Pass the Comprehensive Examination by the fall semester of the third year, which measures breadth physiological knowledge and depth in the chosen field of research (see 3g below)
- vi. Hold a yearly Guidance Committee meeting and have Committee submit a **REPORT OF THE GUIDANCE COMMITTEE** form (See Part V, Section B). Form is found in Appendix.
- vii. Have at least one first author peer-reviewed research publication accepted and encourage submission of at least one other manuscript by the time of the dissertation defense
- viii. Submit a written dissertation based on original research that makes a significant contribution to knowledge, present the dissertation research at a public seminar, and pass the private final oral examination by the Guidance Committee and their evaluation of the written dissertation within 8 years of entry into the Ph.D. program (See Part VI, Section B).

#### b. Doctoral Program Deadlines

REQUIREMENT	DUE DATE/TIME LINE
Select a Dissertation Research Advisor	By end of Year 1 (BMS)
Secure a Dissertation Committee	By end of fall semester of Year 2
First Dissertation Committee Meeting	By the end of spring semester of Year 2, and there after annually
Comprehensive Exam	No later than the end of fall semester of Year 3
Required Teaching	During Year 2
Defense of Doctoral Dissertation	Within 8 years from entry into the Ph.D. program (e.g. the first day in the BMS program)

#### c. Formulation of the Doctoral Program

Students will be considered by the Department to be Doctoral 'candidates' once they have:

- i. Selected a Dissertation Research Advisor (See IV: Selection of Research Advisor)
- ii. Completed required graduate coursework (See 3d below)
- iii. Passed the Comprehensive Examination (See 3g below)

#### d. Doctoral Course and Credit Requirements

The university requires no specific number of course credits, other than a minimum of 24 PSL 999 research credits.

##### Basic Physiology Coursework for the Doctoral Program:

- PSL 828 and 829
- At least 9 credits from elective courses (800 level and higher) that have been approved by the Physiology Graduate Program Director, in consultation with their research advisor
- Four topic courses (at least 1 credit hour each, e.g. PSL 950).



Molecular, Cellular and Integrative Physiology students must attain at least a grade point of 3.0 in any required course (PSL 828, PSL 829). If a student receives below a 3.0 in a required course they have 12 months to retake the course. Failure to attain a 3.0 after retaking the course will result in dismissal from the PhD program. Additionally, accumulation of 2 or more grades in any graduate courses at/below 2.0 meets the criteria for dismissal from the Ph.D. program.

Additional course requirements are recommended by the Research Advisor and Guidance Committee in consultation with the student. The program of study will be based upon the needs of the individual student, taking into account previous academic background, research interests, and professional goals. Selection of courses should reflect the student's need for breadth of knowledge in physiology and depth of knowledge in the field of specialization.

#### Envisioned Timeline for MCIP PhD Program

Year	Fall	Spring
1	<b>PSL 829:</b> Cellular and Integrative Phys II <b>Elective 1</b> <b>BMS Research Forum Rotations</b>	<b>PSL 828:</b> Cellular and Integrative Phys I <b>Elective 2</b> <b>BMS Research Forum Rotations</b>
2	<b>PSL 950:</b> Topics in Physiology <b>Elective 3 (in Fall or Spring)</b> <b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> ) Guidance Committee Selection Dissertation Research TA Requirement in Fall <u>or</u> Spring	<b>PSL 950:</b> Topics in Physiology <b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> ) First Guidance Committee Meeting Dissertation Research TA Requirement in Fall <u>or</u> Spring
End of Year 2: Beginning of Year 3	Comprehensive Exam: written proposal, research presentation, committee questions	
3	<b>PSL 950:</b> Topics in Physiology <b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> )	<b>PSL 950:</b> Topics in Physiology <b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> )
4 and 5	<b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> )	<b>PSL 999:</b> Dissertation Research ( <i>Recommend 3 credits</i> )
Culmination: Dissertation Defense (Must be Registered for at least 1 credit PSL 999 during semester you defend)		

**e. Doctoral Responsible Conduct of Research (RCR) Requirements**

Per University policy, all graduate students must complete the RCR requirements listed below.

Completion of training must be documented in the relevant database (Grad Plan)

Adapted from <https://grad.msu.edu/researchintegrity>

- Items in black text are tracked automatically in Ability
- Items in red, blue, purple text are tracked by MCIP Program in Grad Info

**YEAR  
1**

Due by the  
end of the  
student's  
1<sup>st</sup> year

**Complete These 4 CITI Modules**

- Introduction to the Responsible Conduct of Research
- Authorship
- Plagiarism
- Research Misconduct

**Complete 3 Hours of Discussion-Based Training**

*This requirement can be met in the following ways:*

- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- [Workshops offered by the Graduate School](#) (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

**YEAR  
2**

Due by the  
end of the  
student's  
2<sup>nd</sup> year  
and see  
NOTE  
below

**Complete 3 of the CITI Modules From The Following List**

- Collaborative Research
- Conflicts of Interest
- Data Management
- Mentoring
- Peer Review
- Financial Responsibility

**Complete 3 Hours of Discussion-Based Training**

*This requirement can be met in the following ways:*

- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- [Workshops offered by the Graduate School](#) (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

**NOTE:** You must have completed at least 6 hours total of discussion-based training before finishing the comprehensive exam and entering candidacy status

**YEAR  
3  
and  
EACH  
YEAR  
AFTER**

**Complete 3 Hours of Annual Refresher Training**

*This requirement can be met in the following ways:*

- Complete additional CITI modules (from the supplemental modules listed in CITI, each module counts as 45 min)
- Completing additional face-to-face workshops from the Graduate School
- MCIP Program-Provided RCR Training in Fall and Spring (1.5 hr each)
- One-on-one or group discussions with your advisor(s) on RCR topics (topic, instructors, date, and amount of time must be well documented)

## **f. Doctoral Teaching Responsibilities**

As part of his or her academic requirement each student (irrespective of their source of support) is required to participate in teaching (minimum of a 0.25 TA position for one semester). The teaching experience should be fulfilled during the second year in the program and must occur before the comprehensive exam. Students on select training fellowships may defer this training requirement with the approval of the Physiology Graduate Program Director. Dual-degree students are exempt from this teaching requirement. However, these students are strongly encouraged to pursue teaching experiences at some point during their graduate work.

The importance of this classroom experience as part of their professional development is noted during the student's orientation to the doctoral program. The course coordinator provides a pre-course orientation, regular observation and feedback during the course, and a written evaluation for each student at the conclusion of the course.

Students are encouraged also to seek other opportunities for gaining teaching experience, including the presentation of formal lectures, construction and evaluation of examinations, tutoring of students, and leading discussion sections. All of these opportunities are considered important aspects of professional development in preparation for future employment.

International graduate students must meet the required test scores to qualify for teaching. For more information can be found at the Office for International Students and Scholars (<https://oiss.isp.msu.edu/>) and the MSU English Center (<http://elc.msu.edu/>).

## **g. Doctoral Comprehensive Exam**

### **i. Overview of the Comprehensive Exam Timing, Format and Expectations**

To pass the Comprehensive Exam the student must demonstrate defensible logic in the formulation of research questions/hypotheses and in the proposed approaches to answer these questions (or test these hypotheses) experimentally. The student must also demonstrate breadth of knowledge and understanding of fundamental physiological principles that are relevant to his/her research area.

By the end of the fall semester of the third year in the graduate program, the student must successfully complete the comprehensive exam. If a student recognizes that they will be unable to meet this deadline, they must submit a written request to the Physiology Chair and Graduate Director for an extension by Nov. 15 of the fall semester. Granting of an extension will be decided by the Chair of the Physiology Department and Graduate Director and will not exceed 3 months. Failure to complete the comprehensive exam by the extension deadline will result in dismissal from the PhD program and the guidance committee will determine whether conditions have been met for a master's degree.

The student's Guidance Committee plus a member of the Graduate Affairs Committee (GAC), who will serve as chair of the comprehensive exam committee, will administer the Comprehensive Exam. The student's dissertation advisor will not be present during the oral exam that occurs after the student presents their dissertation proposal to a general audience.

As part of the comprehensive exam the student is expected to submit two written documents one week prior to the comprehensive exam:

1. A dissertation proposal in the form of a current NIH predoctoral fellowship (See ii below for specific guidelines)
2. A three-page topic grant proposal based on the topic/problem provided by the Guidance Committee (See iii below for specific guidelines)

The comprehensive exam day will consist of 2 parts:

1. An oral presentation of the proposed research in seminar open to the public (See iv below for specific guidelines)
2. A closed session meeting with the comprehensive examination committee. The examination committee will consist of the Guidance Committee plus a member of the GAC. The student's dissertation advisor is recused from participation in the preliminary examination. (See v below for more information)

## ii. Doctoral Written Dissertation Research Proposal for the Comprehensive Exam

This document should provide the comprehensive examination committee with sufficient evidence to judge the student's potential (both intellectual and technical) to develop a first-rate dissertation research project. ***It is expected that the student will discuss this written proposal at length with his/her advisor and that the advisor will have significant input into the proposal.*** This is an educational opportunity for trainee to learn "grant writing skills" and therefore a perfect opportunity to learn from his/her advisor. It is recognized that this proposal could be used for fellowship application to grant agencies including AHA, ACS, JDRF, CCFA, NIH etc. However, the format of the dissertation proposal should follow established fellowship guidelines such as those set for the pre-doctoral NIH F31 National Research Service Award (NRSA).

At least seven days prior to the seminar date, the student shall submit a written proposal to the members of the comprehensive examination committee.

The dissertation proposal should include these basic sections (the exact structure and length can vary depending on the fellowship type chosen):

- a. **Specific Aims**: Not exceed 1 page. List the broad, long-term objectives and what the specific research proposed in this application is intended to accomplish. State the hypotheses to be tested.
- b. **Significance**: Not to exceed 0.5 - 1 pages. Briefly describe the rationale leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps in knowledge that the project is intended to fill. State concisely the importance and physiological relevance of the research described in this application by relating the specific aims to the broad, long-term objectives.
- e. **Preliminary Studies and Research Plan**: Not to exceed 5 – 5.5 pages. Use this section to provide an account of your preliminary studies pertinent to the research proposal that will help to establish your experience and competence to pursue the proposed project. Describe the research design and the procedures to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims.
- f. **Literature Cited**: List all references. Each reference must include the title, names of all authors, book or journal, volume number, page numbers, and year of publication. The references should be limited to relevant and current literature. While there is no page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research.

## iii. Doctoral Topic Grant Proposal for the Comprehensive Exam

The Guidance Committee will provide the student with the topic for the 3-page topic proposal no later than 8 weeks before their comprehensive exam. The purpose of this exercise is to 1) assess the student's creative thinking and mastery of physiologic principals

and 2) test the student's ability to develop and communicate in a written form a research proposal. The student will be expected to write a 3-page grant that has the following elements: Hypothesis and Specific Aims (0.5 page) and Experimental Approach (2.5 pages) and References. Students should be aware that the topic provided will be distinct from their research area and therefore, the student is expected to do significant reading of literature and develop experimental strategies to test the hypothesis for the question/problem provided. ***For this grant proposal, the student will not consult with their mentor, and the product should be from their independent literature search and creative thinking.*** Students are allowed to provide their grant for critique by their peers and are allowed to modify their grant based on their peers' critiques before submitting it to the committee.

#### iv. Doctoral Public Presentation of the Dissertation Research Proposal

The student is required to present their dissertation proposal in a seminar open to the public. The oral presentation of the dissertation proposal should be 40 - 50 minutes in length and will include a 10 - 15 minute question/answer period. Do not attempt to include all of the information from the written dissertation proposal in the oral seminar. The key to success in this portion of the exam is to give a clear and coherent presentation. The student should rehearse their presentation with their mentor, lab colleagues and/or fellow graduate students.

#### v. Doctoral Oral Comprehensive Examination

The student will have a closed exam with the comprehensive examination committee following the public seminar on their dissertation proposal. The length of the oral comprehensive examination is ~two hours.

The oral examination will assess the student's ability to:

- Formulate a thesis hypothesis and design rigorous experiments to test it.
- Predict expected outcomes based on literature and preliminary data, assess possible pitfalls and alternative approaches
- Demonstrate critical thinking and proficiency in the field relevant to their dissertation research and fundamental physiological principles.

#### vi. Doctoral Comprehensive Examination Outcome

Following the oral examination with the student, the comprehensive exam committee will decide by simple majority vote on one of the following outcomes:

- **Pass:** the student satisfactorily demonstrated mastery of all aspects of the exam and is ready to pursue a dissertation
- **Pass with condition:** the student demonstrated mastery of some aspects of the exam, but exhibited deficits in other necessary aspects. The student needs to demonstrate mastery of these aspects before moving forward as a Ph.D. candidate
- **Fail:** the student failed to demonstrate mastery of critical aspects necessary for successful completion of a Ph.D. dissertation

In the case of "pass with condition," the student will be expected to fulfill the conditions set by the comprehensive examination committee within three months of the exam (e.g. this could involve rewriting the dissertation or topic grant proposal, repeating the oral comprehensive exam, or both). Failure to fulfill the conditions set by the comprehensive exam committee will result in a failure of the exam and dismissal from the Ph.D. program.

If the student fails the exam, the student will be dismissed from the Ph.D. program, but may be allowed to complete the MS program.

The **RECORD OF THE COMPREHENSIVE EXAMINATION FOR DOCTORAL DEGREE CANDIDATES** form (see Appendix) will be signed by the committee members and Physiology Department Chair and filed with the Physiology Graduate Program Director, the student, and the student's major advisor. **It is the student's responsibility to submit the date of successful completion of the comprehensive exam to the Physiology Graduate Secretary for submission to GradPlan.**

Failure on the part of the student to fulfill the requirements of the comprehensive examination within the prescribed time limits will result in dismissal from the Ph.D. program. A student dismissed for this reason shall have the right to apply to the GAC for readmission. A failure in the comprehensive examination also provides the option for an MS degree at the discretion of the committee and the mentor.

#### **h. Modification of Program and Final Certification**

Final certification of the Ph.D. degree or any radical departure from the suggested program of study as outlined in this handbook requires the approval of the Physiology Graduate Program Director and the Graduate Affairs Committee. In addition to Physiology Department regulations, the student must satisfactorily complete all College and University requirements for a given degree. These requirements can be found on the MSU Graduate School homepage (<https://grad.msu.edu/etd>).

## **IV. SELECTION OF THE RESEARCH ADVISOR**

### **A. Selection of the Master's Thesis Advisor**

#### **1. Timing of Selection of Master's Thesis Advisor**

It is the student's responsibility to secure a commitment from an eligible faculty member to serve as the Thesis Advisor (refer to section 2 below) as part of the application process. Prior to the application process, the student is encouraged to contact the Graduate Director for assistance and to read the detailed descriptions of faculty Research Interests provided on the Department of Physiology website (<https://physiology.natsci.msu.edu>). Information concerning the identification of a potential Advisor/ student's area of interest is required as part of the application process, and in conjunction with discussions with the potential advisor, is used by the GAC as part of the admissions process.

#### **2. Who Can Serve as a Master's Thesis Advisor**

Faculty members that qualify to serve as Thesis Advisors include regular physiology faculty. (Regular faculty members consist of all persons appointed under the rules of tenure and holding the rank of professor, associate professor or assistant professor.)

#### **3. Role of Master's Thesis Advisor**

a. The role of the Thesis Advisor is to oversee the student's academic progress and thesis research project, which must involve original scholarly work. The thesis research must be based on work done by the student after entering the Master's program.

b. The Thesis Advisor and student are responsible for establishing a Guidance Committee.

c. Ultimately the student, not the Thesis Advisor, is responsible for writing and editing the student's thesis. However, the thesis is to be written by the student under the guidance of the

Thesis Advisor, in consultation with the Guidance Committee, and in accordance with: *The Graduate School Guide to the Preparation of Master's Theses and Doctoral Dissertations*.

#### 4. Changing Master's Thesis Advisor

While instances of changing a Master's Thesis advisor should be rare, there may be circumstances when a change in advisor is necessary. In these cases the student should consult with the Physiology Graduate Program Director.

#### 5. Master's Students Financial Support

The Department does not provide graduate assistantships or other stipends for students in the Master's program. This does not preclude a student from obtaining support from the Thesis Advisor, Teaching Assistantships, or other sources of academic financial support.

### B. Selection of the Doctoral Dissertation Advisor

#### 1. Timing of Selection of Doctoral Dissertation Advisor

Students are strongly urged to select a doctoral Dissertation Advisor by the end of their final laboratory rotation. Laboratory rotations are not required for students who have selected a Thesis Advisor at the time of admission.

If a Dissertation Advisor has not been selected by then the student will be directed to investigate additional opportunities within the Department or to withdraw from the Molecular, Cellular and Integrative Physiology graduate training program and consult with the BMS Program Director. The Director of Research and Graduate Studies will assist with this decision. Resources available to the student are the detailed descriptions of faculty Research Interests provided on the Department website (<https://physiology.natsci.msu.edu/>) and the Joint Graduate Student Orientation program presented by the Biomedical Sciences Departments each Fall prior to the start of the school year.

#### 2. Who Can Serve as a Doctoral Dissertation Advisor

Faculty members who qualify to serve as Dissertation Advisors include regular faculty, in the Department of Physiology or in other programs associated with the BMS program. (Regular faculty members consist of all persons appointed under the rules of tenure and holding the rank of professor, associate professor or assistant professor.) A faculty member outside the Physiology Department can serve as a proxy Dissertation Advisor when approved by the Director of Research and Graduate Studies and the Chair of the Department. To be considered as a Proxy Dissertation Advisor, the faculty member must provide the following documents to the Chair of Physiology and the Director of Research and Graduate Studies:

- CV of the proposed proxy doctoral Dissertation Advisor
- Documentation of funding
- A letter documenting:
  - How the research of the proposed proxy doctoral Dissertation Advisor fits with the goals of the physiology department
  - Their commitment to financially supporting the student throughout their doctoral program
  - Explaining how the student's proposed research project will help them to develop a breadth of knowledge of physiology and depth of knowledge in the student's chosen field of physiology, consistent with the goals of the Molecular, Cellular and Integrative Physiology graduate program.

### 3. Role of the Doctoral Dissertation Advisor

- a. The role of the Dissertation Advisor is to oversee the student's academic progress and research project.
- b. The Dissertation Advisor and student are responsible for establishing a Guidance Committee
- c. The student, not the Dissertation Advisor, is responsible for writing/editing the student's dissertation.
- d. The Dissertation Advisor, together with the student, is responsible for completing the **ANNUAL GRADUATE STUDENT EVALUATION FORM** (See Appendix).

### 4. Changing Doctoral Dissertation Advisor

There may be circumstances in which the student may voluntarily or involuntarily choose to change the Dissertation Advisor. These circumstances may include, but are not limited to, irreconcilable differences between Dissertation Advisor and student, change in research interest, or departure of the Dissertation Advisor from the Physiology Department or MSU. Under such circumstances the Physiology Graduate Program Director will work with the student to identify a new Dissertation Advisor. If a Dissertation Advisor has not been selected by the end of the next full semester, the student will be directed to investigate additional opportunities within the Physiology Department or to withdraw from the graduate program.

If a student changes Dissertation Advisors, all data, notebooks and research materials remain the property of the original Dissertation Advisor. Notebooks and research materials may only be removed from the original Dissertation Advisor's laboratory or offices after student has received written permission from the original Dissertation Advisor.

There also may be circumstances in which a student voluntarily or involuntarily leaves MSU before completing all of the degree requirements. If a student leaves MSU for 2 consecutive semesters (non-enrolled), the student can be readmitted to the Molecular, Cellular and Integrative Physiology program. If a student is not enrolled at MSU for 3 consecutive semesters (including summer semester), readmission to the University is required. The original Dissertation Advisor, however, is under no obligation to remain the student's Dissertation Advisor. Under such circumstances the Physiology Graduate Program Director will work with the student to identify a new Dissertation Advisor. If a Dissertation Advisor has not been selected by the end of the next full semester, the student will be directed to investigate additional opportunities within the Physiology Department or to withdraw from the graduate program.

Should a student leave MSU before completing all of the degree requirements, all data, notebooks and research materials remain the property of the Dissertation Advisor. Notebooks and research materials may not be removed from the Dissertation Advisor's laboratory or offices without written permission from the Dissertation Advisor.

## V. FORMATION OF THE GUIDANCE COMMITTEE

### A. Master's Guidance Committee

#### 1. Role of the Master's Guidance Committee

The Master's Guidance Committee's role is to guide the conception, completion, and reporting of the student's research. The student will meet with the Guidance Committee annually to jointly design the student's course of academic study and to provide guidance on their thesis research progress. At each annual meeting the student will need to provide the thesis Guidance Committee with a written progress report of their research, and the student's Advisor will need to file an annual **REPORT OF THE GUIDANCE COMMITTEE** (See Appendix). The Guidance Committee shall administer the Thesis Defense after the completion of the research.



## 2. Composition of the Master's Guidance Committee

The Guidance Committee consists of the Thesis Advisor and at least two other regular faculty from the Physiology Department. Additional faculty from other university departments may be included on the Guidance Committee, at the discretion of the student and Thesis Advisor. Any member of the committee or any other member of the faculty in the Department is available to any student for counsel or guidance throughout his/her graduate career. It is strongly suggested that the Guidance Committee be formed by the end of the first semester of the first year.

## 3. First Master's Guidance Committee Meeting

***Prior to the first Guidance Committee meeting, the student must enroll in GradPlan. All Guidance Committee meetings must be logged and recorded in GradPlan.***

The student and Thesis Advisor will arrange for the selection and first meeting of the student's Guidance Committee whose central role is to guide the conception, completion, and reporting of the student's research. The committee will outline at their first meeting at least a tentative program and establish target dates for each phase of training.

This first meeting must occur, and the **REPORT OF THE GUIDANCE COMMITTEE** form must be submitted, by the end of the second semester of the first year.

Commented [LG1]: Moved up higher so easier to appreciate timeline

For this first meeting, the student is required to:

- Submit a Specific Aims page to Guidance Committee members one week prior to the meeting.
- At the meeting, update the Guidance Committee on their progress on required coursework
- Provide the Guidance Committee with an oral presentation on research progress and an outline of their thesis proposal.
- Bring the **REPORT OF THE GUIDANCE COMMITTEE** form to the meeting (See Appendix).

The Chair of the Guidance Committee is chosen at this first meeting. They will fill be responsible for filling out the **REPORT OF THE GUIDANCE COMMITTEE** form and the **ANNUAL GUIDANCE COMMITTEE SUMMARY**.

The Guidance Committee Meeting proceeds as follows:

- The student is asked to step out of the room for 5-10 minutes so that the advisor can confer with the committee
- Next, the student returns and the advisor steps out of the room for 5-10 minutes so that the committee can confer with the student.
  - Once the advisor has stepped out of the room, the committee chair should explain to the student that each of the committee members can be trusted as a confidential advocate independent of the advisor.
  - The committee chair then asks the student if they would like to discuss any issues or concerns regarding progress toward their degree. Examples include:
    - a. Quality of their training environment (resources, lab personnel, graduate advisor)
    - b. Progress toward the degree (course work, thesis project, publications)
    - c. Professional development (goals and opportunities)
- The committee members should then explain to the student that:
  - a. It is appropriate for the student to approach individual committee members one-on-one to discuss any of these topics outside of his or her committee meetings.

- b. The director of the student's graduate program is always available for confidential discussion of logistical, practical, interpersonal, or sensitive issues related to their training experience.

After this, the advisor returns to the room and the student updates the committee on their required coursework, presents their research progress and an outline of their thesis proposal (this should be an ~30 minute summary).

At the conclusion of this First Guidance Committee meeting the Chair of the Guidance Committee fills out the **REPORT OF THE GUIDANCE COMMITTEE** form and the **ANNUAL GUIDANCE COMMITTEE SUMMARY**, and they send it to the Guidance Committee members for approval and signatures. The Chair of the Guidance Committee will then give the documentation to the student, who is responsible for submitting it to the Physiology Graduate Program Office. **The student is responsible for making sure that this is completed within two weeks of the meeting.**

#### 4. Subsequent Master's Guidance Committee Meetings

The student is required to meet annually with their Guidance Committee and can also meet with them more frequently if they so choose. One week prior to the annual meeting the student will need to provide the thesis Guidance Committee with:

- A written progress report on their research (1-page limit with 0.5" margins and using Arial font 11-point)

The student's annual meeting should include an oral presentation with the following:

- An update on the student's progress in the program, including coursework and fulfillment of requirements.
- List of any manuscripts and abstracts submitted, in press, published, or presented.
- List of awards and service activities
- Description of the dissertation research project and update on all progress toward the completion of the specific aims. If there have been changes in the aims or direction of investigation, these changes should be well described. This section should also include a statement of the percentage of progress on the aims.
- Future studies/timetable: This section should briefly indicate the studies that are incomplete and the anticipated timetable for their completion.
- Bring the **REPORT OF THE GUIDANCE COMMITTEE** form to the meeting (See Appendix).

After the annual Guidance Committee meeting, the Chair of the Guidance Committee will fill out the **ANNUAL GUIDANCE COMMITTEE SUMMARY** and then send it to the Guidance Committee members for approval and signatures. The Chair of the Guidance Committee will then give the documentation to the student, who is responsible for submitting it to the Physiology Graduate Program Office. The student is responsible for making sure that this is completed within two weeks of the meeting.

Students who wish to appeal any part of the summary may do so in writing to the Director of Research and Graduate Studies within 2 weeks of receiving the report. If this does not resolve the issue, a meeting will be arranged between the student, their mentor, and the Director of Research and Graduate Studies at the earliest time convenient for all parties. Failure to reach a consensus at this level, the matter will be taken under consideration by the Graduate Affairs Committee for final resolution.

The student will ensure that confirmation of the annual Guidance Committee meetings is recorded in GradPlan.

The student can schedule additional meetings between annual committee meetings if desired, but the student is not required to submit a formal written document describing their research progress or to prepare an oral presentation for such interim meetings.

**Commented [GL2]:** Be sure to add to Thesis Committee Meeting, too

## **B. Doctoral Guidance Committee**

### **5. Role of the Doctoral Guidance Committee**

The Doctoral Guidance Committee's role is to guide the conception, completion, and reporting of the student's research. The student will meet with the Guidance Committee annually to jointly design the student's course of academic study and to provide guidance on their dissertation research progress. The Guidance Committee shall administer the Comprehensive Examination and the Final Examination.

### **6. Composition of the Doctoral Guidance Committee**

The Guidance Committee consists of at least five members, including the Dissertation Advisor and at least two other regular faculty from the Physiology Department. The majority of the Guidance Committee members must be regular faculty from the Physiology Department. At least one member of the Guidance Committee shall be chosen from outside the Department of Physiology and represent a discipline closely related to the student's field of specialization. Additional regular faculty from other University Departments may be included on the Guidance Committee, at the discretion of the student and Dissertation Advisor. In the case that the Dissertation Advisor is not Physiology faculty, then at least three Guidance Committee members must be regular faculty within the Department of Physiology. Fixed term faculty may be members of the Guidance Committee if they are approved by the Department and the Graduate School.

If a student wishes to have a non-regular faculty member serve on their Guidance Committee:

- The faculty member should submit a CV to the Graduate Program Director or Department Chair and a letter indicating why their membership will benefit the student's Guidance Committee and training.
- The Director and/or Chair will then submit a letter to the Graduate school asking for approval of that non-regular faculty member.
- Final approval is required from the CNS Associate Dean of Graduate Studies and the Graduate School.

**One of the Physiology faculty on the Guidance Committee will serve as the chair of the Guidance Committee.** This means that they are responsible for completing the annual **REPORT OF THE GUIDANCE COMMITTEE** form and the **ANNUAL GUIDANCE COMMITTEE SUMMARY** and circulating the documents for approval and committee member signatures. This document should also be signed by the student and returned by the student to the Graduate Program assistant within two weeks of the committee meeting. This documentation will be kept in the student's folder.

Changes to the Guidance Committee, once established, need to be approved by the Graduate Director.

### **7. First Doctoral Guidance Committee Meeting**

***Prior to the first Guidance Committee meeting, the student must enroll in GradPlan. All Guidance Committee meetings must be logged and recorded in GradPlan.***

The student should complete their first Guidance Committee meeting during their second year and at the latest by the end of the spring semester of the second year. For this first meeting, the student is required to:

- Submit a Specific Aims page to Guidance Committee members one week prior to the meeting.
- At the meeting, update the Guidance Committee on their progress on required coursework
- Provide the Guidance Committee with an oral presentation on research progress and an outline of their dissertation proposal.
- Define timeline for completing the comprehensive exam
- Bring the **REPORT OF THE GUIDANCE COMMITTEE** form to the meeting (See Appendix).

The Chair of the Guidance Committee is chosen at this first meeting. They will fill be responsible for filling out the **REPORT OF THE GUIDANCE COMMITTEE** form and the **ANNUAL GUIDANCE COMMITTEE SUMMARY**.

The Guidance Committee Meeting proceeds as follows:

The student is asked to step out of the room for 5-10 minutes so that the advisor can confer with the committee

Next, the student returns and the advisor steps out of the room for 5-10 minutes so that the committee can confer with the student.

- Once the advisor has stepped out of the room, the committee chair should explain to the student that each of the committee members can be trusted as a confidential advocate independent of the advisor.
- The committee chair then asks the student if they would like to discuss any issues or concerns regarding progress toward their degree. Examples include:
  - a. Quality of their training environment (resources, lab personnel, graduate advisor)
  - b. Progress toward the degree (course work, thesis project, publications)
  - c. Professional development (goals and opportunities)
- The committee members should then explain to the student that:
  - a. It is appropriate for the student to approach individual committee members one-on-one to discuss any of these topics outside of his or her committee meetings.
  - b. The director of the student's graduate program is always available for confidential discussion of logistical, practical, interpersonal, or sensitive issues related to their training experience.

After this, the advisor returns to the room and the student updates the committee on their required coursework, presents their research progress and an outline of their dissertation proposal (this should be an ~30 minute summary)

By the end of the first meeting, the Guidance Committee will decide whether the student is ready to proceed to the comprehensive exam or whether an additional committee meeting is necessary. If the committee agrees that the student is ready to proceed to the comprehensive exam they will discuss a topic for the 3-page proposal (see above, Section III.C.3.g. Comprehensive Exam). The topic for the 3-page proposal must be given to the student no later than 8 weeks before their comprehensive exam.

At the conclusion of this First Guidance Committee meeting the Chair of the Guidance Committee fills out the **REPORT OF THE GUIDANCE COMMITTEE** form and the **ANNUAL GUIDANCE COMMITTEE SUMMARY**, and they send it to the Guidance

Committee members for approval and signatures. The Chair of the Guidance Committee will then give the documentation to the student, who is responsible for submitting it to the Physiology Graduate Program Office. **The student is responsible for making sure that this is completed within two weeks of the meeting.**

## 8. Subsequent Doctoral Guidance Committee Meetings

Following completion of the comprehensive exam, the student is required to meet annually with their Guidance Committee, and can also meet more frequently if they so choose or as needed. One week prior to the annual meeting the student will need to provide the dissertation Guidance Committee with:

- A written progress report on their research (1-page limit with 0.5" margins and using Arial font 11-point)

The student's annual meeting should include an oral presentation with the following:

- An update on the student's progress in the program, including coursework and fulfillment of requirements.
- List of any manuscripts and abstracts submitted, in press, published, or presented.
- List of awards and service activities
- Description of the dissertation research project and update on all progress toward the completion of the specific aims. If there have been changes in the aims or direction of investigation, these changes should be well described. This section should also include a statement of the percentage of progress on the aims.
- Future studies/timetable: This section should briefly indicate the studies that are incomplete and the anticipated timetable for their completion.

After the annual Guidance Committee meeting, the Chair of the Guidance Committee will fill out the **ANNUAL GUIDANCE COMMITTEE SUMMARY** and then send it to the Guidance Committee members for approval and signatures. The Chair of the Guidance Committee will then give the documentation to the student, who is responsible for submitting it to the Physiology Graduate Program Office. The student is responsible for making sure that this is completed within two weeks of the meeting.

Students who wish to appeal any part of the summary may do so in writing to the Director of Research and Graduate Studies within 2 weeks of receiving the report. If this does not resolve the issue, a meeting will be arranged between the student, their mentor, and the Director of Research and Graduate Studies at the earliest time convenient for all parties. Failure to reach a consensus at this level, the matter will be taken under consideration by the Graduate Affairs Committee for final resolution.

The student will ensure that confirmation of the annual Guidance Committee meetings is recorded in GradPlan.

The student can schedule additional meetings between annual committee meetings if desired, but the student is not required to submit a formal written document describing their research progress or to prepare an oral presentation for such interim meetings.

## VI. DEFENSE AND FINAL ORAL EXAMINATION

### A. Master's Thesis Defense and Final Oral Examination

Students must be registered for the semester in which they complete the final oral examination.

The thesis defense consists of an oral examination in defense of the student's written thesis. Passing this exam will require approval of the written thesis, in addition to the satisfactory, oral defense of the thesis. Pass/Fail will be determined by majority vote of the student's Guidance Committee.

The student is responsible for bringing the **RECORD OF DISSERTATION & ORAL EXAMINATION REQUIREMENTS FOR MASTERS DEGREE CANDIDATE** form (See Appendix) to the oral examination. After the exam, the Committee will be responsible for filling out and signing the form, and the student must submit it to the Physiology Department.

A student who fails the exam will be given one opportunity to retake the exam. If the student fails the second exam, the student will be dismissed from the Program.

For details regarding the recommended style for dissertations, see "The Graduate School Guide to the Preparation of Graduate Master's Thesis and/or Doctoral Dissertation." This manual is available from the Graduate School (<https://grad.msu.edu/etd>).

## **B. Doctoral Dissertation Defense and Final Oral Examination**

Students must be registered for the semester in which they complete the final oral examination.

Students must have one accepted first author publication and at least one other manuscript submitted in order to successfully complete their dissertation and graduate. Additional publications beyond the one required manuscript are strongly encouraged.

For details regarding the recommended style for dissertations, see "The Graduate School Guide to the Preparation of Graduate Master's Thesis and/or Doctoral Dissertation." This manual is available from the Graduate School (<https://grad.msu.edu/etd>).

Students are required to apply for graduation in the semester in which their thesis is submitted/accepted by the electronic submission to Proquest (<https://grad.msu.edu/etd/electronic-submission-to-proquest>) and the graduate school, and must be registered for at least one credit during the semester that they defend their thesis or complete the oral exam. There are firm deadlines, listed [here](https://grad.msu.edu/etd/etd-deadline-dates) (<https://grad.msu.edu/etd/etd-deadline-dates>) for thesis and dissertation submission/acceptance in order to graduate in a given semester.

The final oral examination in defense of the dissertation will be conducted and evaluated by the guidance committee. The oral examination will be scheduled for a date not earlier than two weeks after the dissertation and abstract have been submitted to the Dissertation Advisor and guidance committee. This will allow time for the members of the guidance committee to review and evaluate the dissertation before the examination. Simple majority rule is in effect for all guidance committee decisions.

The student is responsible for bringing the **RECORD OF DISSERTATION & ORAL EXAMINATION REQUIREMENTS FOR DOCTORAL DEGREE CANDIDATE** Form (See Appendix) to the oral examination. After the exam, the Committee will be responsible for filling out and signing the form, and the student must submit it to the Physiology Graduate Program assistant.

## **VII. DEPARTMENTAL POLICIES: INTEGRITY AND SAFETY IN RESEARCH AND CREATIVE ACTIVITIES**

### **A. Graduate Student Responsibilities**

#### **1. Integrity and Safety in Research and Creative Activities**

We expect you to adhere to the high ethical principles of our Profession and University as you conduct your research, scholarship, and professional activities. If you violate these principles, you will face sanctions proportional to the gravity of your infraction. Disciplinary action for ethical violations can include dismissal from your graduate program.

Graduate students at MSU are governed by a code of ethics (Integrity of Scholarship and Grades, Guidelines for Integrity in Research and Creativities, Guidelines for Graduate Student Advising and Mentoring Relationships) (<https://grad.msu.edu/researchintegrity> ). Please familiarize yourself with this code. It is also appropriate for you to have ongoing discussions with your advisor about integrity issues as they become relevant. Many situations are ambiguous. Actions can often be interpreted in several ways. Many behaviors can generate disagreements among well-meaning people. Often the only way to resolve these ambiguities is conversation and discussion with colleagues.

In general, data, laboratory notebooks, reagents and samples remain in the laboratory in which they were generated.

## **2. Responsible Conduct of Research and Scholarship**

Students are required to fulfill the mandatory annual Responsible Conduct of Research (RCR) Training. In order for students to receive credit for these requirements by the Program, they must submit appropriate documentation to the Graduate Program assistant. The RCR requirements must be completed each year, including the year of graduation.

RCR training opportunities are provided through a series of workshops offered by the Graduate School (<http://grad.msu.edu/rcr/>), or by the Molecular, Cellular and Integrative Physiology Graduate Program, or students may attend RCR training offered through other BMS-associated programs.

## **B. Animal and Human Use Approval**

All graduate students must receive training and authorization to conduct research involving human or animal subjects or materials. All research involving human subjects or human materials must be reviewed and approved by the MSU Human Research Protection Program (HRPP) (<http://hrpp.msu.edu/> ). All Research with Non-Human Vertebrate Animals must be reviewed and approved by the Institutional Animal Care and Use Committee (IACUC) (<http://animalcare.msu.edu/> ).

## **C. EHS Training and Compliance**

If your research involves the use of any radioactive, biological, chemical material or animals, you must comply with the University regulations governing this area. Please consult with the web page for the Office of Environmental Health & Safety EHS (<https://ehs.msu.edu/>).

## **D. Graduate Student Rights and Responsibilities**

The GSRR (<http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities> ) specifically addresses student conduct, academic pursuits, keeping of records and publications. It describes procedures for formulating regulations governing student conduct and for providing due process in the adjudication of student disciplinary cases. It also defines channels and procedures for student complaints and grievances.

## VIII. DEPARTMENTAL POLICIES: WORK RELATED POLICIES

### A. Teaching Experience

#### 1. Teaching Requirement and Opportunities

In addition to research experience, teaching experience is an important training element that prepares students for a variety of career paths. One semester of teaching experience in a faculty-supervised MSU course must therefore be completed as part of the academic requirements for the PhD Degree. Normally, teaching experience will be gained in the second year by completing a teaching assistantship for one semester. Students in the dual degree program in the college of Osteopathic Medicine (DO/PhD) and College of Human Medicine (MD/PhD) are exempt from the teaching experience requirement.

Students interested in additional teaching instruction can obtain a [Certificate in College Teaching. The University Graduate Certification in College Teaching Program](#) (CCT), an initiative of the Michigan State University Graduate School, in partnership with MSU colleges, that helps graduate students and postdocs organize, develop, and document their teaching experiences. Through a series of professional development activities - workshops or seminars, coursework in disciplinary teaching methods, a mentored teaching project - participants will build and consolidate their preparation for college and university teaching. The program culminates in an e-portfolio that will help students prepare for academic job interviews and plan for their professional development as early career faculty. For graduate students, completion of the Certification in College Teaching Program will be recognized by a Certification notation on the MSU transcript. Students interested in this extensive teaching experience should discuss this opportunity with their mentor prior to making a commitment.

#### 2. Teaching Assistantships

The teaching assistantship (TA) is a university defined position. A Teaching Assistant (TA) is a graduate student whose assistantship appointment consists of teaching, classroom instruction, preparing handouts, monitoring examinations or performing other instructional activities, except as excluded per the Michigan Employment Relations Commission case No. R01 B-020 of May 1, 2001. TAs are part of the Graduate Employees Union (GEU) and rules and regulations governing TAs are detailed in the agreement document agreed upon by MSU and the GEU (<https://www.hr.msu.edu/contracts/documents/geu-2019-2023.pdf>).

#### 3. Appointment of Teaching Assistants in Molecular, Cellular and Integrative Physiology

Policies and procedures for TA appointments are detailed in the GEU contract **and** students should consult this document for further information (<https://www.hr.msu.edu/contracts/documents/geu-2019-2023.pdf>). Administrative responsibility of TA appointments in the Department of Physiology is under the Associate Chair of the department. Students interested in obtaining further information regarding the various TA opportunities should contact the Physiology Associate chair (in the main PSL office).

For TA appointments, an INS I-9 form (Employment Eligibility Verification) must be completed and attached to the GA Appointment Recommendation form. A department representative must see the documents used to verify eligibility and identity. These documents can be a passport or driver's license and a Social Security card. The I-9 form must be completed within three business days of the appointment start date. If I-9 forms are not filed within 3 days the appointment will be cancelled.

International students must have their I-9 forms signed in the Office for International Students and Scholars. They should bring their passport, I-94 and I-20 ID or the DS-2019 to 103 International Center.



Dates by which the selection process must be completed and forms submitted to the University Administration can be found at: <https://hr.msu.edu/ua/hiring/graduate-assistants/index.html>

All Graduate Assistants are subject to a criminal background check. Policies and procedures can be found at: <https://www.hr.msu.edu/employment/graduate-assistants/background-check-policy.html>

#### 4. English-language Proficiency for International Teaching Assistants

See Special Information for International Students at the [Office for International Students and Scholars](https://oiss.isp.msu.edu/) <https://oiss.isp.msu.edu/>

#### 5. Rights & Responsibilities of Teaching Assistants under GEU contract

The Rights and Responsibilities of Teaching Assistants under the GEU contract are covered in ARTICLE 14, STANDARD PERFORMANCE REQUIREMENTS (<https://www.hr.msu.edu/contracts/documents/geu-2019-2023.pdf>)

Graduate assistantships are available only to graduate students who are in good standing and actively pursuing graduate degree programs (<https://grad.msu.edu/assistantships>).

#### 6. Levels of Graduate Assistant (GA) Employment

There are three levels of Graduate Assistant employment (<https://reg.msu.edu/AcademicPrograms/Text.aspx?Section=111#s357> )

- a. **GRADUATE ASSISTANTS, LEVEL I.** Graduate students with the bachelor's degree and less than one year's experience as graduate assistants or as full-support fellows. They conduct research, perform administrative tasks or other supervised duties such as reading and grading papers.
- b. **GRADUATE ASSISTANTS, LEVEL II.** Graduate students with a relevant master's degree or equivalent and/or one year's experience as graduate assistants or as full-support fellows in the appointing department or school or in a unit considered relevant by the chairperson of the appointing department or school. They conduct research, grade papers, or perform administrative tasks with moderate supervision. Advancement from Level I to Level II is usually routine.
- c. **GRADUATE ASSISTANTS, LEVEL III.** Graduate students who have successfully completed doctoral comprehensive exams, as defined by the department in which the student is enrolled, and have experience as a graduate RA/TE at Michigan State University, or equivalent. The minimum number of semesters shall be four (4), five (5) or six (6). The definition of equivalent experience as an RA/TE is left to the discretion of the chairperson of the appointing unit, but it is expected that only experience in research-oriented assignments will count toward the six semesters of experience as an RA. (Consistent with current practice, 1/4 time and 3/4 time appointments count the same as 1/2 time appointments, and summer semesters count the same as fall and spring semesters.)

Graduate assistants are covered under other MSU policies, including those regarding laboratory and campus safety, Drug and Alcohol-Free Workplace, policy on Religious Observance, Procedures for Handling Allegations of Misconduct in Scholarship, MSU Anti-discrimination Policy, and the policies on Sexual Harassment and Conflict of Interest

in Educational Responsibilities Resulting from Consensual Amorous or Sexual Relationships.

## **7. Graduate Assistant Leaves of Absence**

Policies on Graduate Assistant Leave for medical, pregnancy, child adoption, personal and other reasons is covered under Article 18 of the GEU Collective Bargaining Contract (<https://www.hr.msu.edu/contracts/documents/geu-2019-2023.pdf>) and by Graduate School policies (<https://reg.msu.edu/AcademicPrograms/Text.aspx?Section=111#s351>)

## **8. Graduate Assistant Vacations and Professional Meetings**

Attendance at professional meetings is an important part of graduate education. As such, professors are expected to make every effort to accommodate teaching assistants in regards to professional meeting attendance. However, if there is a reasonable expectation that the number or duration of the aforementioned meeting(s) could impair the performance of essential TA duties, the graduate student should confer with the teacher of record prior to accepting the appointment.

Graduate Assistants will be granted a minimum of two (2) weeks of vacation, not including other forms of leave or professional meeting attendance. Graduate Assistants are required to coordinate the dates of vacation with their Research Advisor. In the case of Teaching Assistants, vacation time cannot be used in any way that conflicts with their teaching responsibilities, unless prior arrangements are made with the teacher of record.

## **9. Outside Pay-for-Work**

The current GEU Collective Bargaining Contract allows for Graduate Students to have additional employment under the following conditions: "An employee whose primary employment is with Michigan State University may appropriately maintain additional employment either within or outside of MSU. Such employees will ensure that additional employment does not interfere with their employment responsibilities at MSU." See: <https://www.hr.msu.edu/contracts/documents/geu-2019-2023.pdf>

## **10. Internships and Professional Development**

Students desiring to participate in an external internship or other extra-curricular form of professional development must obtain prior approval from their faculty research mentor and the Physiology Graduate Program Director.

## **11. Health Insurance**

If you are a graduate assistant, you will automatically be enrolled in the MSU sponsored student health insurance plan and the insurance premium will be paid by MSU. If you would like to waive coverage, you must demonstrate you have comparable coverage. If you want to waive out of this coverage, or need more information about student health insurance, go to: <https://hr.msu.edu/benefits/students/index.html>.

For questions concerning waiver processing or general information, contact the MSU Benefits office at 517.353.4434 or 1.800.353.4434. The Benefits Office is located at 1407 S. Harrison Road, Suite 140A (Nisbet Building), East Lansing, MI 48823.

## IX. INTEGRITY OF SCHOLARSHIP, CONDUCT AND GRADES POLICY

### A. Policy on Academic Misconduct

The following statements address principles and procedures to be used in instances of academic dishonesty, violations of professional standards, and falsification of academic or admission records, herein after referred to as academic misconduct. The Department of Physiology has adopted the general outlines put forth in the Spartan Life Student Handbook (see link below). <http://splife.studentlife.msu.edu/regulations/selected/integrity-of-scholarship-and-grades>

The principles of truth and honesty are recognized as fundamental to a community of scholars. The university expects both instructors and students to honor these principles and, in so doing, to protect the validity of university education and grades. Practices that maintain the integrity of scholarship and grades include providing accurate information for academic and admission records, adherence to unit-approved professional standards and honor codes, and completion of original academic work by the student to whom it is assigned, without unauthorized aid of any kind. To encourage adherence to the principles of truth and honesty, instructors should exercise care in planning and supervising academic work, and implement proctoring standards appropriate to the design of the course.

If an instructor alleges a student has committed an act of academic misconduct, the instructor is responsible for taking appropriate action. Depending on the instructor's judgment of a specific instance, the instructor may give the student a penalty grade. A penalty grade may be a reduced score or grade for the assignment or a reduced grade for the course. [For a definition of "penalty grade", see [Student Rights and Responsibilities \(SRR\) 11](#) and [Graduate Students Rights and Responsibilities \(GSRR\) 8.1.18](#).]

When an instructor gives a graduate student a penalty grade for academic misconduct, the instructor must complete and submit an Academic Dishonesty Report (available on the Registrar's Form Menu under Instructor Systems). The report will be sent to the student and to the Dean of the Graduate School and will be added to the student's academic record provisionally. It will remain in the student's record unless: a) the student successfully grieves the allegation; b) the instructor filing the report requests it be removed.

When completing the Academic Dishonesty Report, if the instructor gives a failing grade in the course, the instructor may request the student's academic dean to impose sanctions in addition to the failing grade.

When in the judgment of the student's academic dean, a sanction in addition to a penalty grade is warranted (e.g., dismissal from a unit or program), the dean may call for an academic disciplinary hearing. In calling for an academic disciplinary hearing, the student's academic dean may act independently or in response to a request by the instructor. (Medical Student Rights and Responsibilities)

A student accused of academic misconduct may request an academic grievance hearing to contest the allegation before the appropriate hearing board. In cases involving academic misconduct, no student may be dismissed from a course or program of study without an academic disciplinary hearing.

On the first offense of academic misconduct, the student must complete an educational program on academic integrity and academic misconduct provided by the Dean of the Graduate School.

In cases where the Associate Dean of Graduate Studies in the College of Natural Sciences, or designee, calls for an academic disciplinary hearing, the student will be informed and the case will be referred to the Dean of the Graduate School. The Dean of the Graduate School will notify the student in writing of the call for a disciplinary hearing and will invite the student to a meeting to discuss the hearing process.

Either party may appeal a decision of an administrative disciplinary hearing or a disciplinary hearing board to the appropriate appellate board.

## **B. Graduate Student Rights and Responsibilities**

The Graduate Students Rights and Responsibilities document was adopted by the Board of Trustees. The Department Physiology has adopted the general provisions of the Graduate Student Rights and Responsibilities (GSRR). A copy of the GSRR document can be found online at <http://grad.msu.edu/gsrr/>. Under GSRR provisions, each department is required to list the criteria or outline the procedures required by certain sections of the document. The numbers listed below are not addressed in the previous sections and refer to specific sections of the GSRR document.

The establishment and maintenance of the proper relationship between instructor and student are fundamental to the University's function and require both instructor and student to recognize the rights and responsibilities, which derive from it. The relationship between instructor and student as individuals should be founded on mutual respect and understanding together with shared dedication to the educational process.

### **1. Role of the Faculty in the Instructional Process**

- a. No provision for the rights of students can be valid which suspends the rights of the faculty. The student's right to competent instruction must be reconciled with the rights of the faculty, consistent with the principle that the competency of a professional can be rightly judged only by professionals. It is, therefore, acknowledged and mandated that competence of instruction shall be judged by the faculty.
- b. Faculty shall have authority and responsibility for academic policy and practices in areas such as degree eligibility and requirements, course content and grading, classroom procedure, and standards of professional behavior in accordance with the *Bylaws for Academic Governance*, the *Code of Teaching Responsibility*, and other documents on faculty rights and responsibilities.
- c. No hearing board established under this document shall interfere with the evaluation of a student that represents a course instructor's good faith judgment of the student's performance. In the event that an evaluation is determined to be based on inappropriate or irrelevant factors, the dean of the relevant college shall cause the student's performance to be reassessed and a good faith evaluation to be made.
- d. The University shall provide appropriate and clearly defined channels for the receipt and consideration of student complaints concerning instruction. In no instance shall the competence of instruction form the basis for an adversarial proceeding before any of the judicial bodies established in this document.

### **2. Rights and Responsibilities of the Student**

- i. The student is responsible for learning and demonstrating mastery of the content and skills of a course of study, while participating actively in the course's intellectual community, according to standards of performance established by the faculty.
- ii. The student has a right to academic evaluations that represent the course instructor's good faith judgments of performance. Course grades shall represent the instructor's professional and objective evaluation of the student's academic performance. The student shall have the right to know all course requirements, including grading criteria, and course procedures at the beginning of the course. (See also the *Code of Teaching Responsibility*.)
- iii. To overcome the presumption of good faith, it must be demonstrated that an evaluation was based entirely or in part upon factors that are inappropriate or irrelevant to academic performance and applicable professional standards.

- iv. The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.
- v. The student shall be free to take reasoned exception to information and views offered in the instructional context, and to reserve judgment about matters of opinion, without fear of penalty or reprisal.
- vi. The student's behavior shall be conducive to the teaching and learning process for all concerned.
- vii. The student has a right to be governed by educationally justifiable academic regulations and professional standards. The administering unit shall inform students in writing of such regulations, including codes of professional behavior, at the time of the student's entry into the academic program.
- viii. The student has a right to accurate, timely, and clear information in writing at the time of entry into an academic program concerning (a) general academic requirements for establishing and maintaining an acceptable academic standing, (b) the student's academic relationship with the University and the details of any special conditions that may apply, and (c) graduation requirements for the student's academic program.
- ix. Students are responsible for informing themselves of University, college, department, and school requirements as stated in unit publications and in the University catalog. In planning to meet such requirements, students are responsible for consulting with their academic advisors.
- x. The student has a right to protection against improper disclosure of their education records and personal information such as values, beliefs, organizational affiliations, and health in accordance with FERPA guidelines.
- xi. The student has a right to be protected from personal exploitation and to receive recognition for scholarly assistance to faculty.
- xii. The student and the faculty share the responsibility for maintaining professional relationships based on mutual trust and civility.

## **X. CONFLICT RESOLUTION**

### **A. General Procedures for Conflict Resolution**

Usually the best approach to resolving a conflict is at the local level through informal discussion and negotiation when the problem first arises. Discussion and negotiation amongst the parties in a conflict may not only help to resolve the original conflict, but can lead to better communication and more positive working relationships in the future. In addition, there usually are more options for solving a problem at the early stages of a conflict than later when working relationships may become seriously compromised or when the problem grows in complexity.

Try to resolve problems through discussions with the people who are immediately involved in the issue. In the Department of Physiology, the student should consider speaking with the course instructor (if the problem is specific to a course), your supervisor (if the problem is specific to a graduate assistantship position), your research advisor, research guidance committee, and/or the graduate program director. State – verbally or in writing – specifically what the concern is and what action is being requested to address the concern. If no resolution is found, the student may contact the Physiology Department chairperson.

If the problem cannot be resolved at the departmental level or if the student prefers discussing the matter with someone from outside the department, consider seeking help from the MSU Ombudsman, the Judicial Affairs Office, the Women's Resource Center, Associate Dean for Student Affairs in the College of Education, or the Dean of the Graduate School.

The department of Physiology manages academic complaints, which are defined by the following links: [Code of Teaching Responsibility](#), [Student Rights and Responsibilities](#), [Graduate Student Rights and Responsibilities](#), [Medical Student Rights and Responsibilities](#), [Law Student Rights and Responsibilities](#), and the [Integrity of Scholarship and Grades](#).

To resolve these concerns, please follow these steps:

1. Meet with the individuals involved directly first to see if a resolution can be found.
2. Meet with the graduate program director.
3. Meet with the Physiology Chair to address your concerns.
4. Meet with the Associate Dean of the College of Natural Sciences.
5. Request a formal hearing following the procedures outlined in the policies referenced above.

Through each of these stages, a student may consult with the [Office of the University Ombudsperson](#) to better understand the process and what their options might be.

## **B. Grievance Process and Hearing Procedures**

### **1. Adjudication of Cases Involving Graduate Student Rights and Responsibilities**

The student, as a member of the academic community, has both rights and duties. Within that community, the student's most essential right is the right to learn. The University has a duty to provide for the student those privileges, opportunities, and protections, which best promote the learning process in all its aspects. The student also has duties to other members of the academic community, the most important of which is to refrain from interference with those rights of others which are equally essential to the purposes and processes of the University.

The Michigan State University Student Rights and Responsibilities (SRR) and the Graduate Student Rights and Responsibilities (GSRR) documents establish the rights and responsibilities of MSU students and prescribe procedures to resolve allegations of violations of those rights through formal grievance hearings (<https://grad.msu.edu/gsrr>). In accordance with the SRR and the GSRR, the Department of Physiology Graduate Programs has established the following Hearing Board procedures for adjudicating graduate student academic grievances and complaints.

### **2. Hearing Procedures**

For complete description students are directed to the Office of the University Ombudsperson and <https://grad.msu.edu/gsrr>.

#### **a. Jurisdiction of the Department of Physiology Graduate Program**

- i. The Hearing Board serves as the initial Hearing Board for academic grievance hearings involving graduate students who allege violations of academic rights or seek to contest an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records).
- ii. Students may not request an academic grievance hearing based on an allegation of incompetent instruction.

#### **b. Composition of the Hearing Board**

- i. The Department Hearing Board shall be formed as needed and consist of two faculty members drawn by lot from the elected Physiology Faculty Advisory Committee, two graduate students from the Physiology Graduate Student Council, and the Department Chair. The Department Chair will chair the committee. The Department of Physiology shall constitute a hearing board no later than the beginning of the fourth week of classes of fall semester of each academic year.

- ii. The Chair of the Hearing Board shall be the faculty member with rank who shall vote only in the event of a tie. In addition to the Chair, the Hearing Board shall include an equal number of voting graduate students and faculty.
- iii. The Program will refer to the Graduate School to train hearing board members about these procedures and the applicable sections of the GSRR.

**c. Referral to the Hearing Board**

- i. After consulting with the instructor and appropriate unit administrator, graduate students who remain dissatisfied with their attempt to resolve an allegation of a violation of student academic rights or an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records) may request an academic grievance hearing. When appropriate, the Department Chair, in consultation with the Dean, may waive jurisdiction and refer the request for an initial hearing to the College Hearing Board.
- ii. At any time in the grievance process, either party may consult with the University Ombudsperson.
- iii. In cases of ambiguous jurisdiction, the Dean of The Graduate School will select the appropriate Hearing Board for cases involving graduate students.
- iv. Generally, the deadline for submitting the written request for a hearing is the middle of the next semester in which the student is enrolled (including Summer). In cases in which a student seeks to contest an allegation of academic misconduct and the student's dean has called for an academic disciplinary hearing, the student has 10 class days to request an academic grievance to contest the allegation.
- v. If either the student (the complainant) or the respondent (usually, the instructor or an administrator) is absent from the university during that semester, or if other appropriate reasons emerge, the Hearing Board may grant an extension of this deadline. If the university no longer employs the respondent before the grievance hearing commences, the hearing may proceed.
- vi. A written request for an academic grievance hearing must (1) specify the specific bases for the grievance, including the alleged violation(s), (2) identify the individual against whom the grievance is filed (the respondent) and (3) state the desired redress. Anonymous grievances will not be accepted.

**d. Pre-Hearing Procedures**

- i. After receiving a graduate student's written request for a hearing, the Chair of the Department will promptly refer the grievance to the Chair of the Hearing Board.
- ii. Within 5 class days, the Chair of the Hearing Board will:
  - a. Forward the request for a hearing to the respondent and ask for a written response
  - b. Send the names of the Hearing Board members to both parties and, to avoid conflicts of interest between the two parties and the Hearing Board members, request written challenges, if any, within 3 class days of this notification. In addition to conflict of interest challenges, either party can challenge two hearing board members without cause.
  - c. Rule promptly on any challenges, impanel a Hearing Board and send each party the names of the Hearing Board members. If the Chair of the Hearing Board is the subject of a challenge, the challenge shall be filed with the Dean of the College, or designee. Decisions by the Hearing Board chair or the College Dean (or designee) on conflict of interest challenges are final.

- d. Send the Hearing Board members a copy of the request for a hearing and the respondent's written response, and send all parties a copy of these procedures.
- iii. Within 5 class days of being established, the Hearing Board shall review the request, and, after considering all requested and submitted information:
  - a. Accept the request, in full or in part, and promptly schedule a hearing.
  - b. Reject the request and provide a written explanation to appropriate parties; e.g., lack of jurisdiction. (The student may appeal this decision.)
- iv. The GSRR allows the hearing board to invite the two parties to meet with the Hearing Board in an informal session to try to resolve the matter. Such a meeting does not preclude a later hearing. However, by the time a grievance is requested all informal methods of conflict resolution should have been exhausted so this option is rarely used.
- v. If the Hearing Board calls for a hearing, the Chair of the Hearing Board shall promptly negotiate a hearing date, schedule an additional meeting only for the Hearing Board should additional deliberations on the findings become necessary, and request a written response to the grievance from the respondent.
- vi. At least 5 class days before the scheduled hearing, the Chair of the Hearing Board shall notify the respondent and the complainant in writing of the (1) time, date, and place of the hearing; (2) the names of the parties to the grievance; (3) a copy of the hearing request and the respondent's reply; and (4) the names of the Hearing Board members after any challenges.
- vii. At least 3 class days before the scheduled hearing, the parties must notify the Chair of the Hearing Board the names of their witnesses and advisor, if any, and request permission for the advisor to have voice at the hearing. The chair may grant or deny this request. The Chair will promptly forward the names given by the complainant to the respondent and vice versa.
- viii. The Chair of the Hearing Board may accept written statements from either party's witnesses at least 3 class days before the hearing.
- ix. In unusual circumstances and in lieu of a personal appearance, either party may request permission to submit a written statement to the Hearing Board or request permission to participate in the hearing through an electronic communication channel. Written statements must be submitted to the Hearing Board at least 3 class days before the scheduled hearing.
- x. Either party to the grievance hearing may request a postponement of the hearing. The Hearing Board may either grant or deny the request.
- xi. At its discretion, the Hearing Board may set a reasonable time limit for each party to present its case, and the Chair of the Hearing Board must inform the parties of such a time limit in the written notification of the hearing.
- xii. Hearings are closed unless the student requests an open hearing, which would be open to all members of the MSU community. The Hearing Board may close an open hearing to protect the confidentiality of information or to maintain order.
- xiii. Members of the Hearing Board are expected to respect the confidentiality of the hearing process.

**e. Hearing Procedures**



The Hearing will proceed as follows:

- i. Introductory remarks by the Chair of the Hearing Board: The Chair of the Hearing Board introduces hearing panel members, the complainant, the respondent and advisors, if any. The Chair reviews the hearing procedures, including announced time restraints for presentations by each party and the witnesses, and informs the parties if their advisors may have a voice in the hearings and if the proceedings are being recorded. Witnesses shall be excluded from the proceedings except when testifying. The Chair also explains:
  - a. In academic grievance hearings in which a graduate student alleges a violation of academic rights, the student bears the burden of proof.
  - b. In hearings in which a graduate students seeks to contest allegations of academic misconduct, the instructor bears the burden of proof.
  - c. All Hearing Board decisions must be reached by a majority of the Hearing Board, based on "clear and convincing evidence."
- ii. If the complainant fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may either postpone the hearing or dismiss the case for demonstrated cause.
- iii. If the respondent fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may postpone the hearing or, only in unusual circumstances, hear the case in his or her absence.
- iv. If the respondent is absent from the University during the semester of the grievance hearing or no longer employed by the University before the grievance procedure concludes, the hearing process may still proceed.
- v. To assure orderly questioning, the Chair of the Hearing Board will recognize individuals before they speak. All parties have a right to speak without interruption. Each party has a right to question the other party and to rebut any oral or written statements submitted to the Hearing Board.
- vi. Presentation by the Complainant: The Chair recognizes the complainant to present without interruption any statements relevant to the complainant's case, including the redress sought. The Chair then recognizes questions directed at the complainant by the Hearing Board, the respondent and the respondent's advisor, if any.
- vii. Presentation by the Complainant's Witnesses: The Chair recognizes the complainant's witnesses, if any, to present, without interruption, any statement directly relevant to the complainant's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the respondent, and the respondent's advisor, if any.
- viii. Presentation by the Respondent: The Chair recognizes the respondent to present without interruption any statements relevant to the respondent's case. The Chair then recognizes questions directed at the respondent by the Hearing Board, the complainant, and the complainant's advisor, if any.
- ix. Presentation by the Respondent's Witnesses: The Chair recognizes the respondent's witnesses, if any, to present, without interruption, and statement directly relevant to the respondent's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the complainant, and the complainant's advisor, if any.

- x. Rebuttal and Closing Statement by Complainant: The complainant refutes statements by the respondent, the respondent's witnesses and advisor, if any, and presents a final summary statement.
- xi. Rebuttal and Closing Statement by Respondent: The respondent refutes statements by the complainant, the complainant's witnesses and advisor, if any, and presents a final summary statement.
- xii. Final questions by the Hearing Board: The Hearing Board asks questions of any of the participants in the hearing.

#### **f. Post-Hearing Procedures**

- i. Deliberation: After all evidence has been presented, with full opportunity for explanations, questions and rebuttal, the Chair of the Hearing Board shall excuse all parties to the grievance and convene the Hearing Board to determine its findings in executive session. When possible, deliberations should take place directly following the hearing and/or at the previously scheduled follow-up meeting.
- ii. Decision:
  - a. In grievance (non-disciplinary) hearings involving graduate students in which a majority of the Hearing Board finds, based on "clear and convincing evidence," that a violation of the student's academic rights has occurred and that redress is possible, it shall recommend an appropriate remedy to the Department Chair or School Director. Upon receiving the Hearing Board's recommendation, the Department Chair or School Director shall implement an appropriate remedy, in consultation with the Hearing Board, within 3 class days. If the Hearing Board finds that no violation of academic rights has occurred, it shall so inform the Chair or Director. The Chair of the Hearing Board shall promptly forward copies of the final decision to parties and the University Ombudsperson.
  - b. In grievance (non-disciplinary) hearings involving graduate students in which the Hearing Board serves as the initial hearing body to adjudicate an allegation of academic dishonesty and, based on "clear and convincing evidence," the Hearing Board finds for the student, the Hearing Board shall recommend to the Department Chair or School Director that the penalty grade be removed, the Academic Dishonesty Report be removed from the student's records and a "good faith judgment" of the student's academic performance in the course take place. If the Hearing Board finds for the instructor, the penalty grade shall stand and the Academic Dishonesty Report regarding the allegation will remain on file, pending an appeal, if any to the College Hearing Board within 5 class days of the Hearing Board's decision. If an academic disciplinary hearing is pending, and the Hearing Board decides for the instructor, the graduate student's disciplinary hearing before either the College Hearing Board or the Dean of The Graduate School would promptly follow, pending an appeal, if any, within 5 class days.
- iii. Written Report: The Chair of the Hearing Board shall prepare a written report of the Hearing Board's findings, including recommended redress or sanctions for the complainant, if applicable, and forward a copy of the decision to the appropriate unit administrator within 3 class days of the hearing. The report shall indicate the rationale for the decision and the major elements of evidence, or lack thereof that support the Hearing Board's decision. The administrator, in consultation with the Hearing Board, shall then implement an appropriate remedy. The report also should inform the parties of the right to appeal within 5 class days following notice of the decision, or 5 class days if an academic disciplinary hearing is pending. The Chair shall forward copies of the Hearing Board's report and the administrator's redress, if applicable, to the parties involved, the responsible administrators, the University Ombudsperson

and the Dean of The Graduate School. All recipients must respect the confidentiality of the report and of the hearing board's deliberations resulting in a decision.

**g. Appeal of the Hearing Board Decisions**

- i. Either party may appeal a decision by the Hearing Board to the College Hearing Board for cases involving (1) academic grievances alleging violations of student rights and (2) alleged violations of regulations involving academic misconduct (academic dishonesty, professional standards or falsification of admission and academic records.)
- ii. All appeals must be in writing, signed and submitted to the Chair of the College Hearing Board within 5 class days following notification of the Hearing Board's decision. While under appeal, the original decision of the Hearing Board will be held in abeyance.
- iii. A request for an appeal of a Hearing Board decision to the College Hearing Board must allege, in sufficient particularity to justify a hearing, that the initial Hearing Board failed to follow applicable procedures for adjudicating the hearing or that findings of the Hearing Board were not supported by "clear and convincing evidence." The request also must include the redress sought. Presentation of new evidence normally will be inappropriate.

**h. Reconsideration**

If new evidence should arise, either party to a hearing may request the appropriate Hearing Board to reconsider the case within 30 days upon receipt of the hearing outcome. The written request for reconsideration is to be sent to the Chair of the Hearing Board, who shall promptly convene the Hearing Board to review the new material and render a decision on a new hearing.

**i. File Copy**

The Chair of the Department shall file a copy of these procedures with the Office of the Ombudsperson and with the Dean of The Graduate School.

**C. Policies Regarding Equal Opportunity, Anti-Discrimination and Sexual Misconduct and Relationship Violence**

Michigan State University is an Equal Opportunity Employer and abides by all relevant governmental laws, regulations and policies governing employment.

The detailed University Policy on Relationship Violence and Sexual Misconduct can be found at: [https://hr.msu.edu/policies-procedures/university-wide/RVSM\\_policy.html](https://hr.msu.edu/policies-procedures/university-wide/RVSM_policy.html).

The detailed MSU Anti-Discrimination Policy can be found at: [https://hr.msu.edu/policies-procedures/university-wide/ADP\\_policy.html](https://hr.msu.edu/policies-procedures/university-wide/ADP_policy.html)

**XI. SPECIAL INFORMATION FOR INTERNATIONAL STUDENTS**

Michigan State University is authorized under immigration regulations to enroll nonimmigrant alien students. The Molecular, Cellular and Integrative Physiology Graduate Program welcomes applications from foreign students. International students should consult the [Office for International Students and Scholars](#).

#### **A. Minimum Requirements For Admission**

There are three basic requirements for admission to the Molecular, Cellular and Integrative Physiology Graduate Program at Michigan State University:

1. A strong educational record. Applicants must have successfully completed at least the equivalent of an USA undergraduate degree (4 years), with a minimum equivalent grade-point-average (GPA) of a 3.0
2. Adequate financial resources (a graduate assistantship meets this requirement)
3. Sufficient English language proficiency, as discussed in B.

#### **B. English Language Proficiency and Visa Information**

All foreign applicants are required to be proficient in English as a condition for regular admission to Michigan State University. Applicants whose first language is not English will be required to demonstrate their proficiency by meeting certain minimum standards on any one of the following tests. Refer to the Office of International Students and Scholars for further information (<https://oiss.isp.msu.edu/>)

#### **C. Teaching Assignments for International Students**

All international students admitted to the Molecular, Cellular and Integrative Physiology Graduate Program whose first language is not English will be interviewed by the English Language Center (ELC) faculty upon arrival on campus or after completing their first year of graduate studies. The English Language Center is located in Room 1, International Center, MSU. Each student will receive an interview by the ELC staff. A students' ability to understand and speak English will be reported to the Molecular, Cellular and Integrative Physiology Graduate Program and determine whether or not the student is approved for a teaching assignment. Students who fail to pass the minimum Michigan State University standard will not be assigned to classroom teaching until their language skills have improved. They may be required to participate in ELC classes. More information regarding the English classes and English language tests can be found on the [English Language Center](#) website.

NOTE THAT THE INABILITY TO ASSIGN A STUDENT TO A CLASSROOM TEACHING POSITION MAY INTERFERE WITH THE FULL FUNDING OF THE STUDENT AND ABILITY TO FULFILL TEACHING REQUIREMENTS NECESSARY FOR THE DEGREE.

All international Molecular, Cellular and Integrative Physiology Graduate Program students are required to take the SPEAK test (minimum score or waiver by interview) and attend a three day international teaching assistant orientation at the beginning of their second year. The orientation will provide the international teaching assistant with instruction and practice in classroom teaching. For additional information, see the [Teaching Assistant Program](#) website.

#### **D. Office For International Students and Scholars (OISS)**

The [Office for International Students and Scholars](#) (OISS) serves international students and foreign faculty. OISS is a resource center for information and consultation on matters related to the international student and faculty/scholars. The staff is prepared to help in any of the various areas of concern, including academic problems, immigration questions, social health, employment or financial matters. The office also organizes seminars and workshops on topics of interest to the broad university community. These have included immigration regulations, cross-cultural communication, pre-departure programs for graduating students and various training programs.

## **XII. APPENDIX**

This Appendix contains forms referenced throughout the handbook, including:

**A1 - COPY of ANNUAL GRADUATE STUDENT EVALUATION FORM**

**A2 - COPY of REPORT OF THE GUIDANCE COMMITTEE**

**A3 - COPY of MCIP ANNUAL GUIDANCE COMMITTEE SUMMARY**

**A4 - COPY of RECORD OF THE COMPREHENSIVE EXAM FOR DOCTORAL DEGREE CANDIDATES**

**A5 - COPY of RECORD OF DISSERTATION AND ORAL EXAMINATION REQUIREMENTS FOR MASTERS DEGREE CANDIDATE COMPREHENSIVE EXAM**

**A6 - COPY of RECORD OF DISSERTATION AND ORAL EXAMINATION REQUIREMENTS FOR DOCTORAL DEGREE CANDIDATE COMPREHENSIVE EXAM**

***Note: All forms are accessible from D2L, PSL Graduate Students & Mentors***



Department of Physiology, Michigan State University  
GRADUATE STUDENT EVALUATION FORM

Name:

Calendar Year:

OVERALL OBJECTIVES:

1. Provide opportunity for graduate students and major advisors to evaluate student performance, expectations, progress, success and challenges.
2. Provide a mechanism to formally document student progress and provide accountability tool to protect students and major advisors.

DIRECTIONS:

1. This completed form should be turned in to the graduate director in a PDF format.
2. This completed form is due by the first Monday of March with advisor's signature.

- Date of the degree program start (mm/yyyy):
- Date of the most recent committee meeting [one meeting is mandatory each year] (mm/yyyy):
- Date of the next committee meeting (mm/yyyy):
- Comprehensive examination completed? No      Yes      (mm/yyyy):
- Responsible Conduct of Research (RCR) course completed? No      Yes      (mm/yyyy):
- Please indicate the RCR modules you have completed:

RCR modules completed	Year	Semester

**A1 - COPY of ANNUAL GRADUATE STUDENT EVALUATION FORM – Page 2**  
**Full form accessible from D2L, PSL Graduate Students & Mentors**

**Part 1 - to the student:** This form is intended to summarize your accomplishments in the past year and indicate your plans for the coming year. Please complete, sign, and discuss this with your advisor. Continue on as many sheets as necessary.

- COURSES COMPLETED IN THE PAST 2 SEMESTERS:
  
- PLANNED COURSES FOR THE NEXT 2 SEMESTERS:
  
- TEACHING ASSISTANTSHIPS:
  
- PAPERS SUBMITTED OR PUBLISHED:
  
- CONFERENCE AND INTERNAL/INFORMAL PRESENTATIONS:
  
- MAJOR RESEARCH ACCOMPLISHMENTS:
  
- RESEARCH, ACADEMIC, & OTHER GOALS IN THE COMING YEAR (advisor must agree):
  
- SERVICE:
  
- YOUR COMMENTS:
  
- ADVISOR'S COMMENTS:

I have reviewed this document with my advisor and I have seen his/her comments

Student signature	_____	Date	_____
Advisor signature	_____	Date	_____
Co-Advisor signature	_____	Date	_____

**A1 - COPY of ANNUAL GRADUATE STUDENT EVALUATION FORM – Page 3**  
**Full form accessible from D2L, PSL Graduate Students & Mentors**

**Part 2 - to the advisor:** This form is intended to guide a discussion with your student about their accomplishments, progress, and areas for improvement. This discussion is an opportunity to evaluate the student/advisor relationship and create a more effective research partnership. Below are several topics that should be covered in the discussion. Please think about these issues before meeting with the student. Space is provided for notes. **Both you and the student will sign this form.**

- **Research** (discuss as applicable: thesis topic, future publications, ability to conduct quality research, ability to think of and discuss new ideas, overall progress)  
**Comments:**
  
- **Professionalism** (discuss as applicable: conduct, presentation skills, writing skills, communication skills, teamwork)  
**Comments:**
  
- **Logistics** (discuss as applicable: graduation timeframe, future state of student funding, specific grant requirements, present funding, progress towards students post-graduate goals)  
**Comments:**
  
- **Educational Progress** (discuss as applicable: academic progress, progress towards DQE, teaching opportunities, TA opportunities)  
**Comments:**
  
- **Other** (discuss as applicable) – Unaddressed student or advisor concerns

Student signature	_____	Date	_____
Advisor signature	_____	Date	_____
Co-Advisor signature	_____	Date	_____



**A2 - COPY of REPORT OF THE GUIDANCE COMMITTEE**  
**Full form accessible from D2L, PSL Graduate Students & Mentors**

MICHIGAN STATE  
UNIVERSITY

Copies to: Dean  
Department  
Guidance Committee  
Student

**REPORT OF THE GUIDANCE COMMITTEE – DOCTORAL AND OTHER PROGRAMS**

See the catalog (Academic Programs) regarding composition of guidance committee and deadlines for its formation and for filing this report listing all degree requirements.

Name \_\_\_\_\_ Student No. \_\_\_\_\_  
Last First Middle  
☐ Ph.D. ☐ D.M.A.  
☐ Ed.D. ☐ Ed.S.  
First Semester in Doctoral Program \_\_\_\_\_ Dept. \_\_\_\_\_ Major \_\_\_\_\_  
Semester Year  
Bachelor of \_\_\_\_\_ Master of \_\_\_\_\_  
Institution Year Major Institution Year Major  
Tentative Dissertation Subject \_\_\_\_\_  
Director \_\_\_\_\_ Languages or Course Substitutes \_\_\_\_\_

Will the student's research involve the use of:  
human subjects or human materials? ☐ Yes ☐ No  
warm-blooded animals? ☐ Yes ☐ No  
or hazardous substances? ☐ Yes ☐ No  
I understand it is necessary to obtain institutional review and approval prior to initiating any research involving the use of human or animal subjects or hazardous materials.  
(STUDENT'S SIGNATURE) \_\_\_\_\_ Mo/Day/Yr

**DOCTORAL PROGRAM**

PLEASE PRINT OR TYPE AND CLUSTER BY FIELD

Dept.	Course No.	Semester	Title	No. CR	Dept.	Course No.	Semester	Title	No. CR

**Approved:**  
(Please TYPE guidance committee members' names BELOW signatures)

1. \_\_\_\_\_ Mo/Day/Yr  
Chairperson  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_  
5. \_\_\_\_\_  
6. \_\_\_\_\_

**Course Credits** (in addition to at least 24 credits of 999) \_\_\_\_\_

Comprehensive examination areas:

The candidate expects to pass the Comprehensive Examination by  
\_\_\_\_\_ Semester, \_\_\_\_\_(Year).

\_\_\_\_\_  
Student Mo/Day/Yr  
\_\_\_\_\_  
Department Chairperson Mo/Day/Yr  
\_\_\_\_\_  
College Dean Mo/Day/Yr

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Department of Physiology  
MICHIGAN STATE UNIVERSITY

Molecular, Cellular and Integrative Physiology Graduate Program

Annual Student’s Guidance Committee Summary

- 
- 

the student’s file

- 

Student:

Mentor:

Mentor’s Department:

Chair of the Guidance Committee:

Committee Members:

Date of Qualifying Exam:

Date of last Committee Meeting:

**MCIP ANNUAL GUIDANCE COMMITTEE SUMMARY – Page 2**  
**Also accessible from D2L, PSL Graduate Students & Mentors**

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Meeting Summary

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*Provide a brief update of the student's research presentation, a summary of the discussion representing the opinions of the committee members and the proposed plan and timeline for the completion of the dissertation. You may use as much space as needed, but generally ~1/2 – 1 page should be sufficient.*

**A4 - COPY of RECORD OF THE COMPREHENSIVE EXAM FOR DOCTORAL  
DEGREE CANDIDATES**  
**Full form accessible from D2L, PSL Graduate Students & Mentors**

MICHIGAN STATE  
UNIVERSITY

Copies to: Registrar  
Dean  
Department  
Guidance Committee  
Student

**RECORD OF COMPREHENSIVE EXAMINATIONS  
for  
DOCTORAL DEGREE AND EDUCATIONAL  
SPECIALIST DEGREE CANDIDATES**

☐ Check if this is a re-examination because of expired time limits.

Department of \_\_\_\_\_

Student's Name \_\_\_\_\_ Student Number \_\_\_\_\_  
Last, First Middle Initial

Term and Year of First Course Counted towards this Degree \_\_\_\_\_

**Result of Written Comprehensive Examinations:**

<u>Field</u>	<u>Examiner(s)</u>	<u>Examination Date (MM-DD-YY)</u>	<u>Passed or Failed</u>
--------------	--------------------	--	-------------------------

**Result of Oral Comprehensive Examinations:**

<u>Field</u>	<u>Examiner(s)</u>	<u>Examination Date (MM-DD-YY)</u>	<u>Passed or Failed</u>
--------------	--------------------	--	-------------------------

**OVERALL PASS or FAIL?** \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Chairperson of Examination Committee

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Chairperson of Department

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Dean of College

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08/09

**A5 - COPY of RECORD OF DISSERTATION AND ORAL EXAMINATION  
REQUIREMENTS FOR MASTERS DEGREE CANDIDATE  
COMPREHENSIVE EXAM**



Copies to: Dean  
Department  
Guidance Committee  
Student

**RECORD OF DISSERTATION AND ORAL EXAMINATION  
REQUIREMENTS FOR MASTERS DEGREE CANDIDATE**

Department of: \_\_\_\_\_

Student's Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

1. Dissertation Title: \_\_\_\_\_

2. Dissertation has been: ☐ Accepted ☐ Rejected ☐ Accepted subject to revisions (beyond minor editorial changes) required by the Committee.

3. Oral examination in defense of the dissertation was conducted on: \_\_\_\_\_

The student ☐ Passed

Date

☐ Failed Reason: \_\_\_\_\_

4. Dissenting opinions and signatures of dissenting examiners, if any: \_\_\_\_\_

5. Subject to the satisfactory completion of other requirements, this student is recommended for the degree Doctor of:

☐ Philosophy

☐ Education

☐ Musical Arts

Signatures of Guidance Committee Members:

Printed names of Guidance Committee Members:

_____	Chairperson of Guidance Committee	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. Major revisions required: \_\_\_\_\_

7. Revisions, if any, approved: \_\_\_\_\_

Chairperson of Guidance Committee

Date

Approved: Department Chairperson: \_\_\_\_\_

Associate/Assistant Dean: \_\_\_\_\_

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**A6 - COPY of RECORD OF DISSERTATION AND ORAL EXAMINATION  
REQUIREMENTS FOR DOCTORAL DEGREE CANDIDATE  
COMPREHENSIVE EXAM**



Copies to: Dean  
Department  
Guidance Committee  
Student

**RECORD OF DISSERTATION AND ORAL EXAMINATION  
REQUIREMENTS FOR DOCTORAL DEGREE CANDIDATE**

Department of: \_\_\_\_\_

Student's Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

1. Dissertation Title: \_\_\_\_\_

2. Dissertation has been: ☐ Accepted ☐ Rejected ☐ Accepted subject to revisions (beyond minor editorial changes) required by the Committee.

3. Oral examination in defense of the dissertation was conducted on: \_\_\_\_\_

The student ☐ Passed Date

☐ Failed Reason: \_\_\_\_\_

4. Dissenting opinions and signatures of dissenting examiners, if any: \_\_\_\_\_

5. Subject to the satisfactory completion of other requirements, this student is recommended for the degree Doctor of:

☐ Philosophy ☐ Education ☐ Musical Arts

Signatures of Guidance Committee Members:

Printed names of Guidance Committee Members:

_____	Chairperson of Guidance Committee	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. Major revisions required: \_\_\_\_\_

7. Revisions, if any, approved: \_\_\_\_\_

Chairperson of Guidance Committee

Date

Approved: Department Chairperson: \_\_\_\_\_

Associate/Assistant Dean: \_\_\_\_\_

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