

# Department of Biological Sciences Graduate Student Handbook

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# **Table of Contents**

| Program Objectives.                                | 4                                       |
|--|---|
|  |   |
| Equipment and Facilities                           | 4                                       |
| Qualifications of Prospective Students             | 4                                       |
| Admissions   | 5                                       |
|  |   |
| Curriculum and Degree Requirements.                | 5                                       |
| Master of Science with Thesis.                     |   |
| Selection of Thesis Advisor                        |   |
| Selection of Committee                             | 6                                       |
| Research Proposals                                 |   |
| Thesis Preparation                                 |   |
| Thesis Defense                                     |   |
| Finalized Thesis.                                  |   |
| Responsibilities of Thesis Advisors                |   |
| Responsibilities of Graduate Students              |   |
| reopolisionaes of oracine statements.              |   |
| M · CC · · · · · · · · · · · · · · · · ·           | 7                                       |
| Master of Science without Thesis.                  |   |
| Selection of Advisor                               |   |
| Selection of Committee                             |   |
| Comprehensive Examination.                         |   |
|  |   |
| Financial Assistantships                           | 8                                       |
| 2 11.01.0 til 2 100.10 til 100.11 p                |   |
| Transfer from Thesis to Non Thesis Ducerna         | c                                       |
| Transfer from Thesis to Non-Thesis Program         |   |
|  |   |
| Role of Graduate Coordinator                       |   |
|  |   |
| Conflict with Graduate Supervisors                 |   |
| Solition with Standard Super 130010                |   |
| Harassment & Discrimination.                       |   |
| Harassment & Discrimination                        |   |
|  |   |
| Academic Integrity                                 |   |
|  |   |
| Department Graduate Faculty                        | 10                                      |
| Sopulation of Madale Parallel                      | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| ACCII ata Cara la sta Esparla                      | 1.0                                     |
| Affiliate Graduate Faculty                         | 12                                      |
|  |   |
| List of Forms                                      |   |
| Graduate Research Assistant Performance Evaluation | 14                                      |
| Graduate Teaching Assistant Performance Evaluation |   |
| e e  |   |
| End of Semester Report.                            |   |
| Biology New Grad Student Orientation Form          | 17                                      |
|  |   |
| Biology Thesis Grad Student Checklist              | 18                                      |
|  |   |
| Riology Non-Thesis Grad Student Checklist          | 10                                      |

The Department of Biological Sciences offers an M.S. in Biology with a thesis and non-thesis degree track. A graduate degree in Biological Sciences allows students to enhance their career marketability and further their education. As part of a science and technology university, our program has the unique advantage of being part of a rich history of scientific application that includes patent development, connections with the leading scientific and technological industries, and innovative solutions to challenging global problems.

The program emphasizes research that focuses on understanding environmental responses and adaptations in biological systems at the molecular, cellular, organismal, and ecological levels. The degree offers students an opportunity to conduct research, refine experimental and analytical skills, and increase their depth of knowledge. With research strengths in cellular and molecular biology and ecology, the Department offers unique opportunities for students seeking to expand their horizons through further educational opportunities.

Graduate students in the Department work closely with faculty advisors and other students to design, execute, and interpret experiments that answer basic and applied scientific questions. We encourage interdisciplinary and transdisciplinary collaborations, external partnerships, and participation in regional and national conferences. Competitively awarded graduate teaching assistantships are available for excellent applicants with an identified faculty mentor.

### **Program Objectives**

The major objectives of this graduate program are to enable students to 1) increase knowledge of biological concepts, 2) design, execute, analyze, and present experiments, 3) create scientific products, and 4) engage with scientific networks, including other graduate students, faculty, visiting scientists, and professional societies.

# **Equipment and Facilities**

In the Department of Biological Sciences, we have access to and utilize an array of cutting-edge technologies for microscopy, genetic analyses, cytology, histology, molecular biology, tissue engineering, and microbiology. Our students utilize the outdoor laboratory at the Missouri S&T Ozark Research Field Station, abundant local natural resources, and our connections with federal and state land management agencies to answer questions related to environmental physiology, hydrological flow, evolutionary origins, and ecological function. The new 2100 square foot Missouri S&T Animal Research Facility houses research animals, colony rooms, and a surgical theater for experimental research in physiology, anatomy, behavior, and medical studies. Departmental offices and laboratories are housed in Schrenk Hall and the Ozark Research Field Station.

# **Qualifications of Prospective Students**

Students seeking admission to the graduate degree program in Biological Sciences will be required to meet the standard admissions requirements as defined in the Missouri S&T Graduate Catalog. We recommend that applicants to our program have a minimum of 30 semester hours of biology course work and a cumulative undergraduate GPA >3.0/4.0. We recommend a combined Quantitative + Verbal GRE scores of 300 or an MCAT score of 23. If a student's preparation for formal graduate study is judged to be inadequate, a program of prerequisite course work may be outlined for the purpose of properly supplementing their preparation. Such courses will not be credited as course requirements for the degree.

### Admissions

Students seeking admission into the Biology M.S. degree program must meet all the qualifications set forth by Missouri University of Science and Technology's Office of Graduate Studies. In addition, we require a minimum TOEFL score of 79 (iBT) from international applicants and the submission of GRE or MCAT scores. International students should familiarize themselves with Missouri S&T's policies and procedures with regard to residency, academic requirements, training, visa status, and regulations. With their applications, interested students should also include a cover letter outlining their research interests; a curriculum vitae or resume; three reference letters; and an official transcript.

### Curriculum & Degree Requirements

Graduate study in Biological Sciences is characterized by close interactions with faculty members. While courses of study are individualized, they include seminars, laboratory rotations, and specialized courses. Emphasis is placed on scientific comprehension, research proficiency, and communication skills. With guidance from the advisor and the thesis committee, each candidate will complete a plan of study to satisfy interests of the candidate, advisor, and degree program.

The program offers two tracks, a thesis and a non-thesis track. The thesis track includes mentorship by a faculty member and creation of an independent, original research project and document (thesis). The non-thesis track focuses on coursework and increasing depth and breadth of knowledge. The non-thesis student works with an advisor to select the appropriate coursework and is then tested at the completion of their degree with a comprehensive exam.

# Master of Science in Biology with Thesis

The M.S. program with thesis consists of a minimum of 30 semester hours of graduate credit over and above the prerequisites for admission, with 18 of those being lecture based classes. Up to 6 credit hours may be taken at the 3000-level in courses offered by other departments. A minimum grade of B is required for all courses used to fulfill the M.S. degree requirements.

The following courses are required:

BIO SCI 6202 Problems in Applied and Environmental Biology (2.0 LEC)

BIO SCI 5010 Graduate Seminar (1.0 RST)

BIO SCI 6223 Research Proposal Writing (3.0 LEC)

BIO SCI 5099 Graduate Research (6.0 RES)

12 hours of 4000-, 5000-, and/or 6000-level lecture courses, one of which must be a BIO SCI course

Selection of Thesis Advisor: All thesis students must select a major research advisor their first semester. The major research advisor must be a tenured/tenure-track member of the Department of Biological Sciences or hold an adjunct position with the department. The Graduate Coordinator can assist the student in selection of a major advisor who complements the student's academic and/or research emphasis. This assignment need not be permanent. If the student's emphasis changes, a new major advisor can be selected. The Graduate Coordinator must be notified by the student of any change in major advisor.

Selection of Committee: Students must select a Thesis Committee in consultation with their advisor, by the end of their first semester of enrollment. The thesis committee and planned coursework will be recorded on Form 1 and submitted to the Office of Graduate Studies. The Committee will consist of the student's major advisor plus two additional members of the graduate faculty of S&T. The Thesis Committee will review and approve the student's course requirements and research program. The Committee will review the student's thesis and participate during the student's final thesis defense.

Research Proposals: Students are required to present their prospectus during the departmental seminar series in their second semester of enrollment. It is recommended that the student's committee also meet during this time to advise the student on their research plans.

Thesis Preparation: The findings and results of research undertaken by the candidate must be presented in a thesis. A minimum of an original and three (3) copies normally will be prepared following thesis specifications unless a different format is approved in advance. A manual entitled "Regulations and Specifications for Thesis and Dissertations (T/D)" can be found on the Graduate Studies webpage. The student will distribute copies to the thesis committee and arrange a time and place for the oral defense of the thesis. The student must be enrolled at the time of the examination in accordance with Missouri S&T Policy Memorandum II-20. Each committee member should be allowed to examine the thesis for at least ten days before the oral defense.

Thesis Defense: When the date for the thesis defense has been finalized, the student will send an email notice containing the thesis defense date, time and location to the Faculty and Graduate Students mailing lists for the Department of Biological Sciences. The thesis defense date will be announced no fewer than 7 days prior to the scheduled ate of the defense. The defense may be comprehensive in character, and the candidate should exhibit an acceptable knowledge of a professional area as defined by the program. In order for the candidate to pass the examination, all the examining committee must vote affirmatively. If any member of the committee votes not to pass the candidate, the Office of Graduate Studies shall appoint a new examining committee on which the dissenting member may be replaced, and the new committee will administer a second examination. A student who fails a second time will no longer be eligible for a master's degree from Missouri S&T. Immediately following the thesis defense, the chair of the examining committee will report the action of the committee on Graduate Form 2 to the Office of Graduate Studies. Deadlines for Form 2 will be announced prior to the beginning of each semester and can be found on the Office of Graduate Studies webpage. At the close of a successful thesis defense, the members of the examining committee will sign the thesis in the space provided on the title sheet to signify that they have read and approved the thesis. The approved copy of the thesis, including any corrections indicated by the examining committee should be delivered to the Office of Graduate Studies by the student.

Finalized Thesis: When the final thesis copy is completed, the student will present a copy of the approved thesis to the department chair, a second copy to the advisor, and will retain a copy. Students are responsible for the costs associated with printing and publishing their theses. The department will pay for the printing and binding of one copy that will be included in the departmental library.

### Responsibilities of Thesis Advisors

The thesis advisor is an active participant in directing a thesis student's coursework and research project. It is of the utmost importance that a good channel of communication be open between the advisor and the student. All problems and questions should be brought to the attention of the advisor first before seeking assistance elsewhere. Thesis advisors are expected to:

- 1. Meet regularly with graduate students to assess progress.
- 2. Discuss overall program of study and course requirements with graduate students.
- 3. Discuss expectations regarding thesis research projects, timetable, publications, etc.
- 4. Help graduate students choose a thesis committee.
- 5. Acquaint students with their laboratory and its policies.
- 6. Assist with experimental protocol, data analysis, scientific writing, and seminar preparation.
- 7. Provide feedback on proposals, manuscripts, posters, etc., in a timely manner.
- 8. Ensure that students are provided with information on opportunities and necessary training, and access to research equipment and space.

### Responsibilities of Thesis Graduate Students

- 1. Regularly update your thesis advisor and thesis committee on the status and progress of your work.
- 2. Complete required courses maintaining a GPA > 3.0.
- 3. Complete your thesis and submit manuscripts for publication.
- 4. Maintain clean, safe laboratory and work environment.
- 5. Complete required training in a timely manner.
- 6. Attend departmental seminars and other relevant presentations and functions.
- 7. Provide all requested documentation to your advisor and Graduate Coordinator in a timely manner.
- 8. Respond promptly to correspondence from faculty.

# Master of Science in Biology without Thesis

This program consists of a minimum of 30 coursework hours. Up to 6 credit hours may be taken at the 3000-level in courses offered by other departments. A minimum of 24 credit hours of 4000-, 5000-, and 6000-level lecture courses must be included. A minimum of 9 of those hours must come from 6000-level lecture courses. No credit hours of graduate research may be applied toward the plan of study. Students in this program are required to maintain a 3.0 GPA.

### Two courses are required:

BIO SCI 6202 Problems in Applied and Environmental Biology (2.0 LEC) BIO SCI 5010 Graduate Seminar (1.0 RST)

Selection of Advisor: Students should select an advisor, determine a program of study and complete Graduate Form 1 in the first semester of enrollment. Each semester, the student must follow the program of study on Form 1 exactly or must submit Form 1-A indicating changes to the program of study to the Office of Graduate Studies.

Selection of Committee: Students must select a Non-Thesis Committee in consultation with their advisor by the end of their first semester of enrollment. The Committee will consist of the student's major advisor plus four additional members of the graduate faculty of S&T. The committee is

responsible for signing off on the course of study for the student and writing the comprehensive examination.

Comprehensive Examinations: The comprehensive examination is administered in the final semester of the student's enrollment. This examination will be given only once each semester or summer session and not earlier than six weeks before Friday of the end of the semester or three weeks before the end of the summer session. The candidate will have passed the comprehensive examination if all, or all but one, of the committee members vote to pass. A student who fails the examination must take it again at the next regular scheduled examination time. A student who fails a second time will no longer be eligible for a master's degree from Missouri S&T. The Chair of the examining committee reports the action of the committee to the Office of Graduate Studies on Graduate Form 3.

## Financial Assistantships

Financial assistantship may be available to excellent students. The department offers graduate teaching assistantships (GTAs) and graduate research assistantships (GRAs). GTAs are responsible for instructing, preparing, and maintain teaching laboratory assignments for approximately 20 hours per week in conjunction with a professor assigned to the course. GRAs are expected to work on faculty research and provide additional laboratory support to accomplish funded project objectives. Additional funding for research and travel may be available. Students are encouraged to pursue these opportunities as they arise. More information can be found under "Financial Assistance" in the Graduate Catalog.

GTA and GRA funding include tuition waivers and living stipends and are competitive relative to area costs of living. Funding is contingent on maintenance of high standards of professional integrity, excellent academic performance, satisfactory teaching evaluations, and satisfactory progress toward completion of your degree. GTA funding is renewable for up to four semesters. Funding decisions are made on a semester-by-semester basis and not guaranteed. Students who are funded by these models will meet at the end of each semester with the Graduate Coordinator to review performance and, if applicable, renew funding support.

GTA support is contingent of successful completion of the GTA workshop upon arrival on campus: The GTA workshop is a 3-day course in which students learn classroom techniques and create classroom presentations. Failure of this course prohibits students from classroom instruction and will result in revocation of GTA funding. International student applicants may also be required to pass a SPEAK English language test to secure GTA funding. A thesis student may transfer to the non-thesis program at the end of a semester.

# Transfer from Thesis to Non-Thesis Program

Students who transfer into a non-thesis program relinquish financial assistantce through GTA or GRA support. The thesis advisor, committee, and Graduate Coordinator should be notified of this transfer in writing. Students who are admitted to the non-thesis program cannot transfer to thesis program witout a majority vote by the Graduate Committee and an endorsement from a thesis advisor.

### Role of Graduate Coordinator

Unless otherwise appointed by the departmental Graduate Committee, the chair of the Graduate Committee serves in the role of Graduate Coordinator. The Graduate Coordinator prepares and signs GTA offer letters, assigns GTA teaching roles, meets with thesis students each semester to review progress (may occur via e-mail) and mediates conflicts between supervisors and students. The Graduate Coordinator serves as a resource for graduate students in addition to their thesis advisors; and as a liaison to Graduate Studies and Graduate Council, when individual thesis advisors and students cannot resolve issues on their own. While it is not the responsibility of the Graduate Coordinator to ensure students meet deadlines and expectations, the Graduate Coordinator will enforce deadlines and departmental expectations.

# **Conflicts with Graduate Supervisors**

Constant and positive communications between graduate student and advisor usually yield the most productive outcome. However, conflicts do occur. Both graduate students and advisors should try to understand the root of the conflicts and find a solution. Students who are unable to resolve conflicts with advisors should contact the Graduate Coordinator, or in the event of a conflict of interest, the Department Chairperson.

### Harassment & Discrimination

The Department of Biology is committed to an inclusive learning and research environment. Diverse scholars and students immeasurably enrich our teaching, learning, scholarship, research, and creativity. We strive to create a climate that welcomes, celebrates, and promotes respect from the entire variety of human experience. We welcome people from all backgrounds and we seek to include knowledge and values from may cultures in our departmental community. Harassment of any kind is contrary to our core values and will not be tolerated. Harassment is defined as any unwelcome, hostile or offensive conduct taken on the basis of age, race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity or disability. This policy will be enforced at all levels and ranks. If you encounter sexual harassment, sexual misconduct, sexual assault or discrimination, please contact the Title IX Coordinator. More information on the Equity and Title IX policy can be found here: <a href="https://equity.mst.edu">https://equity.mst.edu</a>. You can also file a report in person at 203 Centennial Hall, 300 West 12<sup>th</sup> Street, Rolla, Missouri 65409 or by phone at 573-341-7734 during business hours from 8:00 – 4:30 p.m.

# **Academic Integrity**

Academic integrity is crucial as loss of academic integrity could incur severe consequences and hamper a person's career. At all times, students should maintain the highest level of academic integrity. Failure to understand the definition or bounds of plagiarism or other professional standards does not serve as an excuse for its occurrence. Familiarize yourself with the resources, and ask questions if you are unclear. Student resources for academic integrity are detailed at: http://ugs.mst.edu/StudentResources-ai.html Graduate student-specific resources on plagiarism can be found at

https://grad.mst.edu/currentstudents/thesisdissertationinformation/plagiarism/ Your advisor or the Graduate Coordinator can also help you find additional resources.

# Departmental Graduate Faculty

David D. Duvernell, Ph.D., Professor, Department Chairman

Research Interests: environmental DNA, population and conservation genetics, ichthyology, evolutionary ecology duvernelld@mst.edu

Chen Hou, Ph.D., Associate Professor

Research Interests: metabolic basis of aging, energetic basis of animal growth and reproduction, Cellular energetics and stress houch@mst.edu

Yue-Wern Huang, Ph.D., Professor

Research Interests: nanomaterials and cell penetrating peptides; biologically active molecules *in vitro* and *in vivo* for basic science research and biomedical applications relevant to disease treatment; physical and chemical properties of nanomaterials that govern molecular mechanisms of nanotoxicity; endocrine modulation in the environment huangy@mst.edu

Jinling Liu, Ph.D., Assistant Professor

Research Interests: artificial intelligence, biomedical informatics, immunology, big data analytics jinling.liu@mst.edu

Melanie R. Mormile, Ph.D., Professor; Associate Dean of the College of Arts, Sciences, and Business

Research Interests: anaerobic microorganisms, biodegradation of organic chemicals, extremophiles in saline environments mmormile@mst.edu

Dev. K. Niyogi, Ph.D., Professor

Research Interests: effects of humanity on stream ecosystems, role of biodiversity in controlling ecosystem processes, nutrient uptake in streams and other aquatic systems niyogid@mst.edu

Stephen P. Roberts, Ph.D., Professor

Research Interests: biomechanics and energetics of insect flight, mechanisms of stress tolerance, role of behavior and environment in aging and senescence stephen.roberts@mst.edu

Katie B. Shannon, Ph.D., Teaching Professor

Research Interests: temporal and spatial control of cell division, budding yeast as a model to determine how cytokinesis is cell-cycle regulated. shannonk@mst.edu

Julie Semon, Ph.D., Associate Professor

Research Interests: identifying differences between sources of adult stem/progenitor cells, regulation of stem/progenitor cell niche, trafficking and fate determination of stem/progenitor cells

### semonja@mst.edu

Matthew S. Thimgan, Ph.D., Associate Professor; Co-Graduate Coordinator

Research Interests: using genetics in the model organism, *Drosophila melanogaster*, to understand the link between lipid metabolism and sleep regulatory pathways; understanding why sleep deprivation has adverse consequences and how we might minimize these effects, genetic mutant screens to identify novel genes involved in insomnia. thimgan@mst.edu

Robin M. Verble, Ph.D., Associate Professor; Director of the Ozark Research Field Station; Co-Graduate Coordinator

Research Interests: fire ecology, insect ecology, terrestrial leaf litter ecosystems, STEM diversity verbler@mst.edu

David J. Westenberg, Ph.D., Professor

Research Interests: rhizosphere microbiology, bioenergetics of symbiotic nitrogen fixation, cell-cell communication in plant-microbe interactions, microbiology education djwesten@mst.edu

### **Emeritus Faculty**

Roger Brown, Ph.D. Ronald Frank, Ph.D.

# Affiliate Graduate Faculty

Chang-Soo Kim, Ph.D., Professor

Research Interests: Solid-state microdevice engineering, Biomedical and biological sensors ckim@mst.edu

Francisca Oboh-Ikuenobe, Ph.D., Professor

Research Interests: Organic-walled microfossils (Palynology) as tools for biostratigraphy, paleoclimates and paleoenvironments, Sedimentology and sequence stratigraphy ikuenobe@mst.edu

Daniel B. Oerther, PhD, PE, BCEE; John A. and Susan Mathes Chair of Environmental Engineering

Research Interests: Molecular microbial ecology of environmental bioprocesses, Environmental determinants of the obesity epidemic, Sustainable development oertherd@mst.edu

### List of Forms

All forms should be submitted to the Administrative Assistant in the Biological Science Office (Schrenk 105).

Form 1/1A—Program of Study; submitted prior to the end of the first semester of enrollment; details the list of courses that the student plans to take; can be resubmitted (as Form 1A) when the course list changes; is submitted by both thesis and non-thesis students; this form can be located on the Graduate Studies webpage

Form 1B—Committee for Masters of Science Comprehensive Exam (Non-Thesis); establishes the committee (4 members plus advisor) for the non-thesis student; must be submitted prior to the end of the first semester of enrollment; this form can be located on the Graduate Studies webpage

Form 2—Thesis Approval and Report on Examination for Master's Degree; reports the outcome of the thesis defense; is submitted after the completion of the thesis defense, generally in the last semester of enrollment; is utilized by thesis students only; should be submitted concurrently with Graduate Learning Outcome (GLO) Standard Campus Rubric; ; this form can be located on the Graduate Studies webpage

Form 3—Report on Comprehensive Examination for Master's Degree (Non-Thesis); reports the outcome of the comprehensive examination for the non-thesis student; is submitted in the final semester of enrollment after the completion of the comprehensive exam; ; this form can be located on the Graduate Studies webpage

Graduate Learning Outcome (GLO) Standard Campus Rubric—submitted by each member of your committee twice in the course of the degree; at the end of the first committee meeting and, again, concurrently with Form 2; this form evaluates the student's knowledge, communication, critical thinking, and professional development; this form is for thesis students only. This form can be obtained in the Biological Sciences main office (Schrenk 105) from the Administrative Assistant.

Graduate Research Assistant Performance Evaluation—this form is submitted during every semester a student is funded through a Graduate Research Assistantship; this form is completed by the thesis advisor or laboratory supervisor in which the student is conducting funded work. This form can be obtained in the Biological Sciences main office (Schrenk 105) from the Administrative Assistant.

Graduate Teaching Assistant Performance Evaluation—this form is submitted during every semester a student is funded through a Graduate Teaching Assistantship; the form is completed by the instructor of record for the course in which the GTA is serving as a secondary instructor. This form can be obtained in the Biological Sciences main office (Schrenk 105) from the Administrative Assistant.

End of Semester Report—this form is completed by any Biology graduate student who receives funding from Missouri S&T during the semester and is due by either 1 December, 1 May or 1 August of Fall, Spring, or Summer term, respectively. This form can be obtained in the Biological Sciences main office (Schrenk 105) from the Administrative Assistant.

Orientation From—this form is completed upon your arrival at Missouri S&T and provides the department with basic and social information. Please update as needed. This form can be obtained in the Biological Sciences main office (Schrenk 105) from the Administrative Assistant.

# **Graduate Research Assistant Performance Evaluation**

The following evaluation is intended to critique the performance of the research assistant in the job duties they have been assigned for the semester. This form should be used as a constructive tool to modify future performance and as an accountability indicator that may impact eligibility for assistantship positions in the future semesters.

| Student Name:   |            |              |             |        |     |
|---|------------|--------------|-------------|--------|-----|
| Evaluator:  |            |              |             | _      |     |
| Date and Term of Evaluation:                                  |            |              |             |        | _   |
| Rating scale: 1- unacceptable, 2- needs improvement, 3- meets | expectatio | ons, 4- exce | eds expecta | utions |     |
| Duties/Responsibilities                                       |            |              |             |        |     |
| Takes initiative to work independently and complete tasks     | 1          | 2            | 3           | 4      | N/A |
| Follows safety procedures                                     | 1          | 2            | 3           | 4      | N/A |
| Completes assigned work in a timely manner                    | 1          | 2            | 3           | 4      | N/A |
| Shows careful attention to detail in work                     | 1          | 2            | 3           | 4      | N/A |
| Exhibits prompt and effective communication                   | 1          | 2            | 3           | 4      | N/A |
| Adheres to deadlines set by supervisor                        | 1          | 2            | 3           | 4      | N/A |
| Understands significance of research                          | 1          | 2            | 3           | 4      | N/A |
| Is able to work as part of a research team                    | 1          | 2            | 3           | 4      | N/A |
| Making progress toward project goals                          | 1          | 2            | 3           | 4      | N/A |
| Recommended for continued GRA support                         |            | YES          | 3           | NO     |     |
| Graduate Research Assistant Signature                         |            | Date         | 2           |        | -   |
| Supervisor Signature Date                                     |            | 2            |             | -      |     |
| Graduate Coordinator Signature                                |            | Date         | 2           |        | -   |

Please write additional comments on the back of this form.

# **Graduate Teaching Assistant Performance Evaluation**

The following evaluation is intended to critique the performance of the teaching assistant in the job duties they have been assigned for the semester. This form should be used as a constructive tool to modify future performance and as an accountability indicator that may impact eligibility for assistantship positions in the future semesters.

| Student Name:   |           |              |   |        |     |
|---|-----------|--------------|---|--------|-----|
| Evaluator:  |           |              |   | _      |     |
| Date and Term of Evaluation:                                  |           |              |   |        | -   |
| Rating scale: 1- unacceptable, 2- needs improvement, 3- meets | expectati | ons, 4- exce | eds expecta                                   | utions |     |
| Duties/Responsibilities                                       |           |              |   |        |     |
| Arrives on time to class and prep sessions                    | 1         | 2            | 3   | 4      | N/A |
| Is prepared for class   | 1         | 2            | 3   | 4      | N/A |
| Behaves (in actions and speech) professionally                | 1         | 2            | 3   | 4      | N/A |
| Attire is appropriate for lab safety                          | 1         | 2            | 3   | 4      | N/A |
| Can lecture independently with supervision                    | 1         | 2            | 3   | 4      | N/A |
| Presents instructions that are clear and thorough             | 1         | 2            | 3   | 4      | N/A |
| Is knowledgeable about subject matter                         | 1         | 2            | 3   | 4      | N/A |
| Is prompt in communication with instructor                    | 1         | 2            | 3   | 4      | N/A |
| Can answer student questions correctly and effectively        | 1         | 2            | 3   | 4      | N/A |
| Takes initiative to work independently and complete tasks     | 1         | 2            | 3   | 4      | N/A |
| Grades homework and exams in a timely manner                  | 1         | 2            | 3   | 4      | N/A |
| Is actively engaged with students during activities           | 1         | 2            | 3   | 4      | N/A |
| Keeps attendance and grading records                          | 1         | 2            | 3   | 4      | N/A |
| Recommended for continued GTA support                         |           | YES          | ,   | NO     |     |
| Graduate Teaching Assistant Signature                         |           | Date         | <u>,                                     </u> |        |     |
| Supervisor Signature  | Date      |              |   |        |     |
| Graduate Coordinator Signature                                |           | Date         | <u>.</u>                                      |        |     |

Please write additional comments on the back of this form.

# End of Semester Report

| Student Name  |
|---|
| Term and Date   |
| Please provide the requested information in space provided below. If the space provided is inadequate, please append additional sheets as needed. |
| List any presentations you made this semester. Provide the full citation.   |
| List any publications you published this semester. Provide the full citation.   |
| List any awards you were nominated for this semester (indicate status: received, did not receive, pending):                                       |
| List any grants, including travel awards, that you applied for and their status (received, did not receive, pending).                             |
| Provide a brief update on the status of your degree and pathway to completion.  |
| Please tell me about any other accomplishments you would like to share.   |
| What is your anticipated graduate term?   |

# Biology New Grad Student Orientation Form

| Name  |                      |
|---|----------------------|
| Preferred Name  |                      |
| Preferred Pronouns                                    |                      |
| Date of Birth   |                      |
|   |                      |
| Phone Number  | Okay to text? YES NO |
| E-mail address_                                       |                      |
| Local address   |                      |
|   |                      |
| Emergency contact (name, relationship, phone number): |                      |
|   |                      |
| Allergies:  |                      |
| Thesis Advisor:                                       |                      |
|   |                      |
| Have you completed the GTA workshop? YES NO           |                      |

# **Biology Thesis Grad Student Checklist**

### Prior to start of Semester 1

Congratulations, you've been accepted into the M.S. program and offered an assistantship! Meet with Graduate Coordinator to sign initial offer & appointment letter (this may be done via email).

Complete GTA workshop.

Complete SPEAK test (international students, if applicable).

Register for classes.

Get student ID and ask Administrative Assistant for access to labs, classrooms, and buildings.

Complete New Biology Grad Student Orientation Form.

### Semester 1

Identify thesis advisor.

Identify committee.

Plan course of study.

Complete Form 1.

Complete Semester Report.

Complete GTA or GRA Evaluation.

Meet with Graduate Coordinator to sign reappointment letter.

### Semester 2

Present research proposal.

Schedule committee meeting.

Submit Graduate Learning Outcome Rubrics after committee meeting.

Complete Semester Report.

Complete GTA or GRA Evaluation.

Meet with Graduate Coordinator to sign reappointment letter.

### Semester 3

Complete Semester Report.

Complete GTA or GRA Evaluation.

Meet with Graduate Coordinator to sign reappointment letter.

If necessary, submit Form 1-A.

#### Semester 4

Apply for graduation.

Present thesis defense.

Submit form 2 and Graduate Learning Outcomes Rubric.

Complete Semester Report.

Complete GTA or GRA Evaluation.

Meet with Graduate Coordinator to submit forwarding information and conduct exit interview.

Graduate!

# Biology Non-Thesis Grad Student Checklist

### Prior to start of Semester 1

Congratulations, you've been accepted into the M.S. program!

Register for classes.

Get student ID and ask Administrative Assistant for access to labs, classrooms, and buildings.

Complete New Biology Grad Student Orientation Form.

### Semester 1

Identify advisor.

Identify committee.

Plan course of study.

Complete Form 1.

Complete Form 1B.

### Semester 2

Attend classes.

Meet with advisor during advising week.

### Semester 3

Attend classes.

Meet with advisor during advising week.

Submit Form 1A, if necessary.

### Semester 4

Apply for graduation.

Meet with committee to plan comprehensive examinations.

Complete comprehensive examination.

Submit Form 3.

Meet with Graduate Coordinator to submit forwarding information and conduct exit interview.

Graduate!