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INTRODUCTION

Welcome to the Department of Biological Sciences at Minnesota State University, Mankato. The Biology Graduate Student Handbook was designed to provide you with information that will help to get you started on the right track and keep you there throughout your graduate career. It contains highlights from the MSU Graduate Bulletin that address some of the more frequent concerns of graduate students. Use it as a reference guide but be sure to verify any questions with your advisor and a current MSU Graduate Bulletin.

The key below will help you locate buildings referred to throughout the handbook. A map of the campus can be found in the Graduate Bulletin.

AF      Alumni Foundation Center
WA      Wigley Administration Building
ACC     Academic Computer Center
CC      Carkoski Commons
ML      Memorial Library
SU      Centennial Student Union
TR      Trafton Science Building, North, South, East, Center
WB      Wissink Building
WC      Wiecking Center
FH      Ford Hall
TN      Trafton Science Center – North
TS      Trafton Science Center – South
TR      Trafton Science Center
TE      Trafton Science Center - East
HOW DO I GET STARTED?

The Graduate Bulletin

You will want to get a copy of the current Graduate Bulletin, which is available online at the College of Graduate Studies website (http://grad.mnsu.edu/). It will help to answer any questions that you have relating to graduate studies. Also see the Department of Biological Sciences website regarding admission (http://cset.mnsu.edu/biology).

THE DEPARTMENT OF BIOLOGICAL SCIENCES

Admissions

In addition to completing the minimum requirements for the College of Graduate Studies and Research, and the requirements described below, admission to the Biology program must be approved by the Biology Graduate Committee prior to completion of 16 credits of graduate coursework. The Graduate Committee will evaluate the student’s potential for success based on additional criteria, including performance in Biology and related coursework, and correlation between the student’s research interests and faculty research interests.

Summer Review of Graduate Applications

The potential advisor, graduate coordinator, department chair, and graduate committee members (if available) will review applications received after the last spring semester duty day. For all qualified graduate students, if the potential advisor is not available after two weeks, the application will be put on hold until the advisor is available, and the applicant will be notified.

How to Apply

Admission to the Biology MS Program requires that applicants satisfy the minimum requirements for admission to the College of Graduate Studies and Research. In addition, qualified applicants should satisfy the following three requirements for acceptance in the Biology MS Program. It is highly recommended that applicants identify and contact a potential research mentor prior to applying.

1. Demonstrate proof of meeting the academic requirements for the program by satisfying ONE of the following criteria:
   a. Submit an official transcript signifying that you received a bachelor’s degree in Biology or a closely related discipline with a minimum cumulative GPA of 3.00 and minimum biology GPA of 3.0; OR
   b. Submit official transcripts showing that you possess a bachelor’s degree in a discipline other than Biology but have satisfactorily completed one year of general biology for majors and courses at the
200-level or above in three of the following areas: Genetics, Ecology, Cell Biology, Microbiology, and Physiology (five courses total). The minimum average GPA for these classes is 3.00; OR
c. Submit your official scores for the Biology Subject GRE with an overall ranking in the 70th percentile, as a minimum; OR
d. The graduate committee may consider applicants, who do not meet criteria a-c, on an individual basis with the support of a member of the Graduate Faculty in the Department of Biological Sciences.

2. Submit a letter to the Department of Biological Sciences describing your interest in our Biology MS program. This letter should succinctly identify your career goals, your research interests, and identify the faculty member(s) with whom you are most interested in pursuing a thesis research project.

3. International students from a country where English is not the primary language must submit an official IELTS score with a minimum score of 7 in speaking and in two of the other three ability categories. An internet based TOEFL (iBT) is acceptable with minimum scores of 26 in speaking, 24 in writing, and 22 in the other two categories. Similar scores from an equivalent exam can also be considered.

**Deficiencies**

Students who do not meet the admission requirements or students that do not have an equivalency (a grade of C or better) in the core courses required for admission, have a scholastic deficiency (listed on your acceptance letter).

Deficiencies may be corrected by:

1. Formal course work or
2. Approved examination(s) given by the instructor in charge (with a C or better).

*Undergraduate course taken as a deficiency will not count toward the graduate degree.*

Any *graduate* course designated as a deficiency may be applied toward your graduate degree, provided it is first approved by your advisor, the Biology Graduate Committee, and the Biology Department Chairperson.

The *College of Graduate Studies* will inform you of the decision of the Biology Graduate Committee concerning your application for admission. Upon admission to the Department of Biological Sciences, you will be assigned an advisor, or you may select an advisor independently. *All new graduate students are strongly encouraged to contact potential advisors either prior to application for admission to the program, or soon after admission.*
Biology Graduate Committee

The function of the committee is defined in the Biological Science Department Governance Document. Duties of the committee include screening applicants and determining eligibility. The committee consists of the department’s graduate coordinators and three additional department faculty members selected each year.

Programs Available

1) Master of Science in Biology

This program offers a specialized professional degree in Biology designed for those students who wish to continue their education beyond the bachelor’s level. Biology faculty have research expertise in Physiology, Cellular and Molecular Biology, Human Biology (biomedical), Toxicology, Microbiology, and Ecology.

Requirements:
- Thesis (30 credits)
- Alternate Plan Paper (34 credits)

Required Core (7 credits)
- BIOL 601 – Biometrics (2)
- BIOL 602 – Research Methods/Proposal (2)
- BIOL 695 – Graduate Seminar (1) (3 Seminar credits required)

Required Selected Topics (4 credits)
- BIOL 619 – Selected Topics (2-3)
- BIOL 605 – Ethical Issues in Biological Research (2)
- BIOL 606 – Paradigms in Ecology (2)
- ENVR 619 – Selected Topics (3)

Required Electives (13-22 credits)
Choose any 500/600 level Biology courses in consultation with an advisor

Required Thesis or Alternate Plan Paper (1-6 credits)
- BIOL 694 – APP (1-2)
  or
- BIOL 699 – Thesis (3-6)

At least half the required graduate credits (excluding thesis credits) must be at the 600 level. For example,
- The Thesis track requires at least 12 credits of 600-level courses (not including BIOL 699 Thesis credits).
- The Alternate Plan Paper track requires at least 16 credits of 600-level courses (not including BIOL 695 APP credits).
2) Master of Science in Biology Education

The Master of Science in Biology Education program is limited to those who have junior or senior high teaching certification and want to broaden their education in biology. A minimum of 6 credits in education and 6 credits in a related science must be included in coursework.

Requirements:
- Thesis (30 credits)
- Alternate Plan Paper (34 credits)

Required Core (11 credits)
- BIOL 601 – Biometrics (2)
- BIOL 602 – Research Methods/Proposal (2)
- BIOL 695 – Graduate Seminar (1) [3 Seminar credits required]
- BIOL 619 – Selected Topics (2-3) [4 credits required]
- ENVR 619 – Selected Topics (2-3) [may be taken to satisfy 3 credits of BIOL 619 requirement]

Required Biology Electives (1-10 credits)
Choose any 500/600 level Biology courses in consultation with an advisor.

Required Professional Education (6 credits)
Choose 6 credits of professional education courses in consultation with an advisor.

Required Related Science Electives (6 credits)
Choose 6 credits of related science courses in consultation with an advisor.

Required Thesis or Alternate Plan Paper
- BIOL 694 – APP (1-2)
  or
- BIOL 699 – Thesis (3-6)

Note: At least half of the required graduate credits for the program must be at the 600-level, not including the thesis or alternative plan paper credits.
3) Master of Science in Environmental Sciences

There are two different paths (Thesis Option and Alternate Plan Paper Option) to a M.S. Degree in Environmental Science. The Master's thesis option is strongly encouraged for students planning to continue on for a Ph.D.

Thesis (30 credits)
Alternate Plan Paper (34 credits)

Required Core (16 credits)
- ENVR 540 – Environmental Regulations (3 credits)
- ENVR 550 – Environmental Pollution and Control (3 credits)
- ENVR 560 – Analysis of Pollutants (4 credits)
- ENVR 570 – Environmental Assessment (3 credits)
- BIOL 510 – Global Change Biology (3 credits)

Choose TWO courses from the following:
- GEOG 681 – Environmental Issues
- GEOG 673 – GIS for Planners
- POL 669 – Public Policy Analysis
- POL 670 – Urban Law
- URSI 604 – Zoning and Legal Issues
- URSI 609 – Applied Urban Analysis
- URSI 661 – Long-Range and Strategic Planning
- URSI 662 – Operational Planning

Required Thesis or Alternate Plan Paper
- ENVR 699 Thesis (3-6 credits) OR
- ENVR 694 APP (1-2 credits)

Remaining 600 level courses are selected from other programs across campus in consultation with your academic advisor.
Thesis or Alternate Plan Paper

The University requires a Thesis or Alternate Plan Paper before a degree can be awarded. Graduate students in the Department of Biological Sciences are strongly encouraged to write a thesis based on original research.

**Thesis**

A thesis must be a demonstration of your ability to do individual, independent work of a creative and/or investigative nature in an area related to your field of interest. It must show independent thought in the recognition of a clearly defined problem and in its method of treatment.

**A Thesis Proposal** must be approved by the student’s examining committee prior to data collection.

- Papers involving research on human participants require IRB approval prior to data collection and thesis proposal approval. IRB proposal forms are available in the College of Graduate Studies and Research.
- Likewise, any project involving vertebrates must be approved by IACUC (Institutional Animal Care and Use Committee) prior to initiation of data collection. See Dr. Penny Knoblich for the necessary forms.

The members of your examining committee must approve the copy of your thesis before you are eligible for the final oral comprehensive examination. It must conform to an appropriate style. Check with your advisor for an appropriate style to follow; also, see the Graduate Office guidelines. Students should review the *Guidelines to Capstone Experiences and Thesis/Alternate Plan Paper*, available online through the College of Graduate Studies and Research before starting the thesis.

**Amending Approved Proposals**

Research proposals and amendments must be approved in writing by all members of the examining committee. Thesis proposal forms for the research proposal and any amendments must be submitted to the Department of Biological Sciences and are placed in the student’s file.

**Alternate Plan Paper**

The Alternate Plan Paper is available for the MS Degree in Biology and is oriented more toward the use of secondary research sources. The research should be significantly greater in quality and quantity than the standard graduate term paper.

- If your paper involves human subjects you must complete the IRB Proposal Form and receive approval prior to proceeding with your research including data collection.
- Likewise, any project involving vertebrates must be approved by IACUC (Institutional Animal Care and Use Committee) prior to initiation of data collection.
Submit your paper with the binding fee to the College of Graduate Studies by the deadline for the term in which you plan to graduate.

**Continued Enrollment**

All graduate students must be enrolled for at least 1 credit hour during the semester in which they plan to graduate. In addition, access to library, biology labs and resources, and other institutional resources requires that students be enrolled for at least one credit.

**Graduate Assistant Positions**

The Department of Biological Sciences offers two types of graduate assistant positions. Research Assistant (RA) and Teaching Assistant (TA).

*Research Assistants*

These positions are supported by grants to individual members of the faculty and involve field or laboratory research work with a specific faculty member. Positions are available on a limited basis.

*Teaching Assistants*

The duties of a TA include teaching lower division biology laboratory sections, setting up instruction laboratories, assignment and examination grading and record keeping as well as other related activities assigned by the department. These positions are supported by the department, the Federal Work study program and the College of Graduate Studies. *(See Appendix A for more information.)*

**Who is Eligible?**

Applicants must have

- A bachelor’s degree and be eligible for admission to a Minnesota State University, Mankato graduate program.
- Good speaking, writing, and overall communication skills
- An ability to work independently and creatively
- Strong interpersonal skills
- An understanding of office management procedure
- A minimum 3.0 GPA in undergraduate courses in math, chemistry, biology, and physics
- IELTS scores: minimum of 7 in speaking and in two of the other three ability categories

Previous teaching experience is an advantage.
**Contract**

Any student that accepts an assistantship position must sign a binding contract. The contract states the number of work days and your salary. You will receive a 100 percent tuition waiver (UP TO 18 CREDITS PER YEAR; typically 9 credits per semester).

**Enrollment Requirements for Graduate Assistants**

Graduate Assistants must be enrolled concurrently in courses for every term they are receiving a graduate assistantship.

- Minimum credit hour enrollment during the Academic Year is 6 graduate credits per semester (must be enrolled prior to the beginning of duty days).
- The maximum enrollment during the Academic Year is 12 graduate credits per semester.
- During the summer, research and teaching graduate assistants must enroll for a minimum of 1 graduate credit. No tuition waiver is given during summer session.

**Assistantship Renewal**

Continuation as a TA during the current semester and renewal as a TA during the subsequent semester depends upon

1. Performance as a TA during the current semester
2. Satisfactory progress toward the degree. (A minimum GPA of 3.0 in his/her current MSU Mankato graduate program, and acceptable progress on thesis project.)
3. Other factors such as enrollment and satisfactory progress by the student toward completion of the graduate degree.
4. Assistantship support beyond 3 years requires special permission. (See Appendix A for more details.)

**Salary**

The salary for Biology graduate teaching assistants is $9,000 per academic year. The salaries for Research Assistants vary according to the position.

Pay is distributed every other Friday. Any problems with payroll checks should be directed to the department administrative assistant (TS 242, extension 2786). Direct deposit to the any bank or credit union is required. Wells Fargo and Affinity Plus Federal Credit Union are both conveniently located in the Student Union.

**Office Space**

The Department will assign office space to each TA. Teaching assistants are required to set up office hours. You must hold office hours for the courses you teach, as required by the course coordinator. You should expect to have up to one office hour for each
**hour of teaching.** Telephones are **not furnished** in all TA offices. This space is for TAs and meeting with students; others should not have access because confidential student materials are stored in TA office areas.

**Mailbox**

Mailboxes are located in the department office, TS-244. Please be sure to check your mailbox every day for correspondence or any notice items from the department.

**STUDENT MAV (ID) CARD**

MSU offers the Mav Card, which contains your name and picture, and is a more efficient ID card that gives you a number of additional conveniences which include: use of the library, attendance of sporting events, discounts on food purchases on campus, and some lab access. Please see the Mavcard Office for further information, SU 117, Ext. 1707.

**GRADUATE EDUCATION**

**Graduate Advisor (research mentor)**

Initially, the graduate coordinator will be assigned as your graduate advisor unless you have identified a potential advisor (research mentor) prior to admission (this is strongly encouraged). Identify your permanent graduate advisor (research mentor), depending upon the area of Biology in which you will be concentrating your studies, by the end of your first semester.

- The **Change of Advisor form** (available on the web from the College of Graduate Studies) should be submitted to the graduate coordinator by the end of your first semester in residence.
- Your advisor should assist you in selecting course work that will meet Department and University requirements. She/he will help you in selecting a topic for your Thesis or Alternate Plan Paper and provide input on research designs.

**Change of Graduate Advisor**

If, during project, a graduate student or advisor withdraws, the student must either have written permission from the former advisor to utilize the project concepts and data already collected, or must begin a different project. The former advisor reserves the right to decline to give permission for the student to use project concepts and data already collected.

**Examining Committees**

The Examining Committee is responsible for assisting you in completing your desired program. They serve on the final written and oral examination committee. **In order for**
your Examining Committee to be effective, it is important that you keep the members informed about any program changes and the progress of your thesis.

**MS Biology/MS Biology Education Examining Committee**

Your advisor will help you to select an Examining Committee.

- In consultation with his/her advisor, each M.S. student will invite two other graduate faculty members (for a minimum of two committee members, including the research advisor, from biology) to serve on his/her examining committee. Faculty members reserve the right to either accept or decline committee membership based on their professional area of expertise and other factors.
- It is recommended that one member of the examining committee be from outside the Department of Biological Sciences, but this is not required.

**MS Environmental Science Examining Committee**

The Environmental Sciences Program is interdisciplinary. An examining committee is required for both the Thesis and Alternate Plan Paper options. A minimum of 3 graduate faculty from MNSU-Mankato are required on the examining committee. In addition, we encourage but do not require that professionals from outside MNSU (industry, agencies) serve on the examining committee. The chairperson must have Regular or Research Graduate Faculty status from one of the following departments at MNSU-Mankato: Biological Sciences, Chemistry & Geology, Civil Engineering, or Geography. Two members of the examining committee must be graduate faculty (Research, Regular, or Associate status) in the Department of Biological Sciences at MNSU-Mankato. One member of the examining committee must be graduate faculty from outside the Department of Biological Sciences Faculty. This member has traditionally been from one of the following Departments: Chemistry & Geology, Statistics, Geography, Political Science, or Urban and Regional Studies.

**Graduate Program - Plan of Study**

In consultation with your advisor, complete the Graduate Program “Plan of Study” by the end of your first year. This form must be signed by your advisor, the examining committee, and the Graduate Coordinator.
## Milestones during your graduate education

**Recommended timetable for M.S. students in the Department of Biological Sciences**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Expected Date of Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of (agreement with) a major professor</td>
<td>End of the first semester</td>
</tr>
<tr>
<td>- Change of Advisor and/or Committee Member Form</td>
<td></td>
</tr>
<tr>
<td><em>found at <a href="http://grad.mnsu.edu/forms/advisorChange.pdf">http://grad.mnsu.edu/forms/advisorChange.pdf</a></em></td>
<td></td>
</tr>
<tr>
<td>- file with Graduate Office &amp; give Biology Office a copy</td>
<td></td>
</tr>
<tr>
<td>Formulation of the examining committee</td>
<td>end of the second semester</td>
</tr>
<tr>
<td>- Change of Advisor and/or Committee Member Form</td>
<td></td>
</tr>
<tr>
<td><em>found at <a href="http://grad.mnsu.edu/forms/advisorChange.pdf">http://grad.mnsu.edu/forms/advisorChange.pdf</a></em></td>
<td></td>
</tr>
<tr>
<td>- file with Graduate Office &amp; give Biology Office a copy</td>
<td></td>
</tr>
<tr>
<td>Submit thesis proposal to examining committee</td>
<td>end of second semester</td>
</tr>
<tr>
<td>- Complete Thesis Proposal Form <em>found in the Biology Office &amp; attach proposal</em> – file with Biology Office</td>
<td></td>
</tr>
<tr>
<td>Completion of research component</td>
<td>variable; consult with major professor on timeline</td>
</tr>
<tr>
<td>Complete a course plan of study</td>
<td>end of the third semester</td>
</tr>
<tr>
<td>- Complete Plan of Study Template/Form <em>found at <a href="http://grad.mnsu.edu/forms/planofstudy.html">http://grad.mnsu.edu/forms/planofstudy.html</a></em></td>
<td></td>
</tr>
<tr>
<td>- file with Biology Office</td>
<td></td>
</tr>
<tr>
<td>Thesis written</td>
<td>3-5 months after completion of research</td>
</tr>
<tr>
<td>- Submit written thesis to examining committee</td>
<td></td>
</tr>
<tr>
<td>Application for Graduation</td>
<td>Nearly 3 months before graduation date (See Graduate College deadline for the anticipated graduation semester.)</td>
</tr>
<tr>
<td>- Enroll in at least 1 grad credit the semester you defend and intend to graduate</td>
<td></td>
</tr>
<tr>
<td>- Complete and have signed one copy of Application for Graduation Form</td>
<td></td>
</tr>
<tr>
<td><em>found at <a href="http://grad.mnsu.edu/forms/appforgraduation.pdf">http://grad.mnsu.edu/forms/appforgraduation.pdf</a></em> - file with Graduate Office &amp; give Biology Office a copy</td>
<td></td>
</tr>
<tr>
<td>Oral presentation and examination</td>
<td>Announce public presentation of thesis/APP 2 weeks prior to the defense. A good faith effort should be made to schedule defense at a time the majority of faculty are available.</td>
</tr>
<tr>
<td>- After defending have committee endorse written thesis – use Format of Endorsement/Signature Page link found at <a href="http://grad.mnsu.edu/capstone/">http://grad.mnsu.edu/capstone/</a>. Follow directions on the link to submit this page.</td>
<td></td>
</tr>
<tr>
<td>- Complete and have signed one copy of Recommendation for Awarding the Certificate/Master's Degree <em>found at <a href="http://grad.mnsu.edu/forms/recommendcertificatedegree.pdf">http://grad.mnsu.edu/forms/recommendcertificatedegree.pdf</a></em> - file with Graduate Office &amp; give Biology Office a copy</td>
<td></td>
</tr>
<tr>
<td>Completion of Master of Science degree</td>
<td>2-3 years after admission</td>
</tr>
<tr>
<td>Completion of student exit survey</td>
<td>Immediately prior to graduation</td>
</tr>
</tbody>
</table>
Items to consider prior to beginning your final semester

• Review Pre-Graduation Checklist.
• If you wish to participate in graduation exercises, order cap and gown.
• If you are required to take a written comprehensive exam, *Written Comprehensive Examination Request and Report* should be filed with the Graduate Office at least 2 weeks prior to taking the examination.
• For oral comprehensive exam, announce public presentation of thesis 2 weeks prior to the defense. A good faith effort should be made to have the defense at a time the majority of the faculty are available. Examining committee (and Biology Office for Environmental Science only) must receive a copy of the completed thesis at least one week before the oral exam date.
• The Recommendation for Awarding the Degree form is due 2 weeks before the end of the semester of anticipated graduation with College of Graduate Studies.
• Approved Thesis or Alternate Plan Paper must be completed and given to committee members at least one week before the oral exam.

Deadlines for graduation applications and recommendation for awarding the degree are available on posted flyers through the campus or available from the College of Graduate Studies (check the web).

Comprehensive Examinations

• The Written Comprehensive Examination may be required at the discretion of the Examining Committee.
• The Oral Comprehensive Examination is required for each degree candidate and includes an open seminar on the candidate’s research.
SERVICES AT MSU

Memorial Library

Services include reference/instruction for areas of on-line bibliographic retrieval, interlibrary loan, study carrels, procedures for reserve materials and many others. See student handbook for a more complete description.

Student Health Services/Medical Clinic

All registered students and those paying an activity fee at the university are eligible for the services offered at the Student Health Service located in the Carkoski Commons 21. See Student Bulletin for more details. Group health insurance for students is available on a semester or annual basis. Brochures are available in Cashier’s Office or Student Health Services.

Women’s Center

Programs and services focus on issues, scholarship funding, problems and concerns affecting all University women. Located in SU 218. (6146)

Student Union

Some resources and services available in the SU are

- Affinity Plus Credit Union
- Campus Dining
- Commuter Affairs/Housing/Community Connections
- Counseling Center
- Credit Union
- Fraternities
- Impact (Events Hot line)
- Information Desk
- Mavcard Office
- Maverick Gameroom
- Campus Computer Store
- Minnesota River Review
- MSUSA Credit Union/Loan Department
- Recreation Center
- Reporter/MSU Newspaper
- Rideshare Program
- Sororities
- Student Association
- Student Development Programs and Activities
- Student Exchange - Books/records can be traded/bought
- University Attorney
- University Bookstore
- Wells Fargo Bank
- Violence Prevention Center
CLASSROOM AND OFFICE SUPPLIES

Most of the materials and items you will need for your teaching classes can be found in the Biology Store located in TS-153. If you should need to purchase materials or supplies not available from the storeroom ask student employees in the store or the course coordinator for help on how to purchase these items.

COMPUTERS

All graduate students may use computers in TS 165 and TS 286 unless the room is reserved for another purpose. Graduate teaching assistants only may use the computer and printer in TS 244 for teaching-related purposes.

The Academic Computer Center has a large selection of computers for student use with no charge. The Center operates on a first come-first serve basis. There are also a variety of computers available in the research labs within the department.

PHOTOCOPYING SERVICES

Copies for your teaching duties can be made with department funding at the Trafton Copy Shoppe (TR C-118). A copy machine is located in TS-244. Teaching assistants will receive a code for all copying related to teaching duties. In addition, personal copies can be purchased for cash in Trafton Copy shop located in TC-118 or any copy shop on campus. Personal copy cards can be purchased at the Copy shop in the University Bookstore or Armstrong Copy shop.

SECURITY AND SAFETY  WC 222, (2111)

Building Access/Keys

You will need keys for the building, classrooms, and possibly research labs or an office. In addition, if you intend to be in Trafton during irregular hours (i.e. nights and weekends), you will need a building pass.

- Pick up an access form in the Biology department office, take to the appropriate faculty supervisor for approval, and return to main office. After you have completed it you can expect a 24-hour turnaround time before you receive your building pass and key form.
- To obtain keys for classrooms, labs, and offices, take approved key form to University Security located in Wiecking Center WC-222. A required deposit is $10.00 per key, which can be paid with cash, credit card or check. All key(s) MUST be returned to the Key Department in Security when you graduate or no longer use them. Your key deposit will be returned at that time.
- If you are found in the building after hours, which is usually considered after 11:00 p.m. weekdays or on weekends without a pass and a picture ID, your keys may
be seized and you will be asked to leave the building. Your keys can be retrieved the next working day at University Security WC-222 (2111).

Parking Permits

Permits are required to park in designated areas on and around the campus. Permits are color-coded and are issued for the full academic year. Each color has certain privileges and restrictions.

Please refer to the "Handbook of Parking and Traffic Regulations" for details. One can be picked up at the Cashiers Office (WA-128). Parking permit registration forms can be picked up from the Cashiers window also.

THINGS TO DO BEFORE YOUR LEAVE MSU.M

1. Remember to turn in your building, lab, and office keys to Security so your deposit can be refunded.

2. Leave your grade books with the course instructor or Administrative Assistant.

3. Clean up your office but leave department supplies so the next person can use them (includes all items picked up at the Biology Store for office use).

4. Leave contact information with department administrative assistant should we need to reach you. Please stay connected with us, as we always want to continue to support you and follow your successes.

5. Turn in your office desk key to the administrative assistant.
<table>
<thead>
<tr>
<th>NAME</th>
<th>RESEARCH INTERESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Michael Bentley</td>
<td>Applied Anatomy/Image Analysis of Vasculature</td>
</tr>
<tr>
<td>Dr. Aaron Broege</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>Dr. Rachel Cohen</td>
<td>Physiological Changes in the Green Anole Relating to Reproduction, Season and Hormone Manipulations</td>
</tr>
<tr>
<td>Dr. Bradley J. Cook</td>
<td>Community Ecology/Wetland &amp; Plant Ecology</td>
</tr>
<tr>
<td>Dr. Shannon J. Fisher</td>
<td>Water Resources, Fisheries</td>
</tr>
<tr>
<td>Dr. Geoffrey M. Goellner</td>
<td>Molecular Neurobiology/ Polyglutamine Proteins</td>
</tr>
<tr>
<td>Dr. Penny Knoblich</td>
<td>Physiology/Hypertension/Renal Function/Exercise</td>
</tr>
<tr>
<td>Dr. John D. Krenz</td>
<td>Ecology, Evolution, &amp; Behavior</td>
</tr>
<tr>
<td>Dr. Allison Land</td>
<td>Immunology/Virology</td>
</tr>
<tr>
<td>Dr. Bethann Lavoie</td>
<td>Science Education</td>
</tr>
<tr>
<td>Dr. Alison Mahoney</td>
<td>Plant Taxonomy/Evaluating Races of Plants</td>
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<tr>
<td>Dr. Gregg Marg</td>
<td>Industrial Biotechnology/Products from Renewal Resources</td>
</tr>
<tr>
<td>Dr. Steven Mercurio</td>
<td>Toxicology/Pesticides/Endocrine Disruption/ Microcystins</td>
</tr>
<tr>
<td>Dr. Bertha Proctor</td>
<td>Water Quality/Assessing Sources of Pollution</td>
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<tr>
<td>Dr. Christopher T. Ruhland</td>
<td>Plant Physiology/Antarctic Ecosystems/UV light and Plant Production</td>
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<tr>
<td>Dr. Timothy Secott</td>
<td>Microbiology/Genes and Molecular Mechanisms of Mycobacteria</td>
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<tr>
<td>Dr. David Sharlin</td>
<td>Thyroid Hormone Action in Development</td>
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<td>Dr. Robert Sorensen</td>
<td>Parasite-Host Coevolution/Population Genetics</td>
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<td>Dr. Daniel Toma</td>
<td>Genetics of Behavior</td>
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<tr>
<td>Dr. Dorothy Wrigley</td>
<td>Microbiology &amp; Immunology/Food Borne Pathogens</td>
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<tr>
<td>Dr. Brittany Ziegler</td>
<td>Science Education</td>
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Faculty research interests may also be found online at: [http://cset.mnsu.edu/biology/dir/faculty.html](http://cset.mnsu.edu/biology/dir/faculty.html)
GRADUATION DEADLINES

Summer 2015

- Application for Graduation - June 5, 2015
- Thesis or Alternate Plan Paper Completed - July 10, 2015
- Recommendation for Awarding the Degree Form - July 24, 2015

Fall 2015

- Application for Graduation – October 2, 2015
- Thesis or Alternate Plan Paper Completed – November 13, 2015
- Recommendation for Awarding the Degree Form – December 4, 2015

Spring 2016

- Application for Graduation – February 19, 2016
- Thesis or Alternate Plan Paper Completed – April 8, 2016
- Recommendation for Awarding the Degree Form – April 20, 2016

Summer 2016

- Application for Graduation - June 3, 2016
- Thesis or Alternate Plan Paper Completed - July 8, 2016
- Recommendation for Awarding the Degree Form - July 22, 2016

Purchase Cap, Gown and Hood from MSU Graduation Services. (Specialists need to order their garb six weeks before the graduation ceremony.)
Appendix A: Department of Biological Sciences Expectations of Teaching Assistants and Faculty Mentors of Teaching Assistants

Teaching Assistants

Work Responsibilities & Job Description

1. Faculty duty days are days you are contracted to work. You are expected to be available to meet with your course instructor on every duty day of every semester.
2. Work should average 20 hours/week, the equivalent of a 50% time appointment.
3. Plan ahead (prepare, prepare, prepare) for the sections you teach. Have a backup plan should technology fail, which means you cannot cancel class because the projector doesn’t work, your computer file got lost, or there was a similar technology failure.
4. Teach your two or three sections each week competently.
5. Conflicts with teaching (planned and unplanned absences)
   a. Inform course coordinator at the beginning of the semester, or as soon as you know, of potential conflicts with teaching obligations. You are responsible for supplying your course coordinator with a list of potential substitute teachers. (Potential substitutes must be teaching the course already.)
   b. In the event of an emergency (family death, severe illness, etc.) contact your course coordinator as soon as possible. If time permits, find potential substitutes as above.
6. Prep labs and clean up labs as assigned.
7. Attend weekly course meeting (if your course has one).
8. Proctor lecture and lab exams.
9. Hold weekly office hours as required for your course. Post a note on your office door if there is a change. Changes can only be made for emergencies.
10. Grade student work accurately and return it in a timely manner (as specified for your course, but not before all students in the course have handed the assignment in).
11. First Semester, New TAs Only: Observe another TA teaching the lab before you teach it (actively practice doing the lab during this time).
12. Attend lectures for your course as requested by your course coordinator.
13. Be on time to classes you teach and weekly course meeting (if there is a meeting for your course).
14. Leave room in your schedule for all of these things, not just 6 hours per week of teaching.

Professional Conduct

1. Be friendly, but you do not have to be your students’ friend. Be enthusiastic, and remember you are the key course contact for the students because they do not get a lot of one-on-one time in lecture. Rotate among students during lab to help. You represent the department and the course.
2. Do what your course professor asks.
   a. If you think there needs to be an exception or change, ask him/her and receive approval before making a change. Often the professor asks you to do something to keep consistency across the sections of the course. The students do talk, and we want to be as fair to all the students in all the sections as we can.
   b. The course professor is responsible for the entire course, including the content and accuracy of all lecture and laboratory/discussion course materials and the performance of the laboratory instructors. In these regards, the course professor has the right to see any materials related to the course.
3. Give your students a way to contact you, at the very least your official MSU email address (firstname.lastname@mnsu.edu) and office room number.
4. Check your biology department mailbox and email daily. If you are not on campus daily, tell students that you cannot and do not check your biology department mailbox daily. Respond to students within 48 hours. If you cannot answer a student question within this time period, at least respond and tell them you are looking into the question.
5. Maintain confidentiality regarding students. You may discuss students with the course professor but may not discuss them with anyone else to comply with MSU’s data privacy policy. Do not post or email students grades with names, tech ID number, or other identifiers. If you post grades, ask students for a code they want used when you post grades, and use this instead of names, tech IDs, etc. Do not return papers such that grades are visible to other students.

6. Do not date your students.

7. Act professionally: proper language (no swearing), no offensive jokes, do not demean students – support and help them.

8. You are responsible for finding a substitute teacher in the event of an emergency (family death, severe illness, car accident, etc.). Let your course professor know what is happening and who your sub will be immediately.

9. Keep students in lab the entire time – learning, not doing busy work


11. Your continuation as a TA during the current semester and renewal as a TA during the subsequent semester depends on
   a. Performance as a TA during the current semester. Poor performance includes:
      i. Failure to follow effectively work responsibilities and professional conduct outlined above.
      ii. Missing more than one week of teaching obligations for non-emergency situations (emergency = family death, illness, or injury), even if a substitute is available.
   b. Satisfactory progress toward degree.
      i. GPA of 3.0 or greater in his/her current MSU Mankato graduate program
         (Unofficial transcripts must be submitted for TA renewal.)
      ii. Acceptable progress on thesis project
   c. Meeting enrollment requirements
      i. A minimum of 6 graduate credits per semester
      ii. A minimum of 1 graduate credit during summer
   d. Assistantship support beyond 3 years requires special permission
   e. Course enrollments. (If course enrollments are low, TAs may not be needed.)

**Faculty Mentors**

1. If your requirements of your student create conflicts with teaching responsibilities, you must work with the course coordinator to resolve these conflicts.

2. Faculty mentors are encouraged to pursue research assistantships for any students whose research will cause significant conflicts (such as missing more than one week) with teaching obligations.

**Reminder:** Repeated failure of a faculty mentor to accommodate student teaching obligations may affect the awarding of future teaching assistantships.
Appendix B: Order of Granting Teaching Assistantships

1. Returning TAs, completed 1 year, good standing
   a. Appropriate academic progress
   b. Appropriate progress in research (mentor feedback*)
   c. Acceptable teaching effectiveness (course coordinator feedback*)

2. Returning TAs, completed 2 years, good standing
   a. Appropriate academic progress
   b. Appropriate progress in research (mentor feedback*)
   c. Acceptable teaching effectiveness (course coordinator feedback*)

3. New admits, based on good quality applications, AND
   Current graduate students without a teaching assistantship, in good standing
   a. Appropriate academic progress
   b. Appropriate progress in research (mentor feedback*)

4. Returning TAs, completed 1 year, marginal progress

5. New admits, average application, AND
   Current graduate students without a teaching assistantship, average standing
   a. Appropriate academic progress
   b. Appropriate progress in research (mentor feedback*)

6. Returning TAs, completed 2 years, marginal progress

7. Returning TAs, completed 3 years (beginning 4th year)
   a. These can be moved up if recommended by the advisor (i.e. research project
      suffered unusual setbacks, but student is working hard.)

8. Returning TAs from other departments
   Grad assistants that need to convert to TA funding will be treated as a TA with the
   same standing.

*Feedback may be initiated by the graduate coordinator, the course coordinator, or
the mentor.
An email will be sent each spring to all faculty members, asking for feedback
concerning current TAs.

Each spring semester, all current TAs will fill out and return to the Biology Office, a
form requesting the following information.
   • Whether or not the TA desires a teaching assistantship for the following fall.
• Preferred course teaching assignments, numbered 1 through 3.
• Summer contact information
• An unofficial transcript

Priorities (in order of importance) for granting TA-ships for Summer Sessions.

1. TA must be registered, or planning to register for fall semester, OR TA will graduate in the summer.

2. Preference of the course instructor.
   a. If requested by the instructor, a single TA may be assigned more than one section.

3. If the course instructor has no preference:
   a. Experience in teaching the course
   b. Likelihood of progress during the summer on the research project.