

Graduate Faculty Handbook

Plant and Microbial Biology Graduate Program

University of Minnesota • Twin Cities

Updated August 2021

<https://cbs.umn.edu/academics/departments/pmb/graduate-education>

Plant and Microbial Biology Graduate Program

GRADUATE FACULTY HANDBOOK

This handbook provides PMB Graduate Faculty with a guide to the expectations of a faculty member in the Plant and Microbial Biology Graduate Program and as a resource to effective advising and serving on student advisory committees. This handbook is one of three handbooks maintained by the Graduate Program; the other two are the Graduate Student Handbook and the Governance Handbook.

Table of contents

Program overview	1
PMB graduate faculty obligations	1
Key people and program resources	2
Advising	3
Advisory committee membership	5
Fostering research skill development	6
Student funding	7
PMB commitment to diversity, equity, and inclusion	12
Harassment and discrimination	15
College of Biological Sciences Code of Conduct	17
Respectful and responsible conduct in PMB	18
Appendix A: Guidelines for successful mentoring	21
Appendix B: Outline of advising statement	23
Appendix C: Example advising statement	25
Appendix D: Best advising practices for graduate student success	28

Plant and Microbial Biology program overview

The Plant and Microbial Biology (PMB) Graduate Program strives to provide outstanding interdisciplinary education for careers in academia, industry, government, and public service. The program is also committed to supporting diversity, both in scientific pursuits and the community of people conducting that science.

The graduate program seeks to recruit and train students from wide variety of backgrounds and experiences and to provide them with:

- interdisciplinary educational, research, and professional development experiences;
- opportunities to work on a broad range of cutting-edge research topics in plant and microbial biology;
- opportunities to conduct independent research, develop as innovative educators, and engage in community outreach;
- opportunities to participate in the national and international plant and microbial biology research community through seminars, colloquia, and conferences.

The PMB program expects students to develop the conceptual understanding, analytical skills, and technical knowledge that allow those students to make important contributions to our understanding of biology and that lay the foundation for professional success.

PMB graduate faculty obligations

Members of the PMB Graduate Program Faculty represent a broad array of administrative units within the University, primarily the College of Biological Sciences and the College of Food, Agricultural and Natural Resource Sciences. While not every faculty member will necessarily participate in every one of these activities, each member is expected to be involved in several areas:

- Serve as academic advisor for PMB students.
- Serve on graduate committees of students in the program, including evaluation of written and oral preliminary examinations, student research reviews, and final oral examinations.
- Teach graduate courses.
- Participate in recruitment activities, including recruiting students, interviewing prospective students, and attending recruiting visit events.
- Serve on program committees (e.g., steering, admissions).
- Attend and help organize program seminars, including student seminars.
- Attend faculty meetings, including the fall semester meeting and annual retreat.

See the PMB Graduate Program Governance handbook for details on PMB graduate faculty membership.

Key people and program resources

ACADEMIC PROCESS, RESOURCES, SUPPORT, FUNDING, ETC.

Dr. Peter Kennedy
Director of Graduate Studies (DGS)
kennedyp@umn.edu | 612.624.8519

Dr. Candice Hirsch
Associate Director of Graduate Studies (ADGS)
cnhirsch@umn.edu | 612.301.9522

Sara Eliason
Graduate Program Coordinator (GPC)
140 Gortner
seliason@umn.edu | 612.625.4222

PHYTOGRADS – PMB GRADUATE STUDENT ORGANIZATION

Alexandra (Alex) Crum
Ph.D. student and Phytograds president
crumx045@umn.edu

CBS HUMAN RESOURCES OFFICE—IN SNYDER HALL

Graduate assistant appointments
cbshr@umn.edu

Advising

ADVISOR RESPONSIBILITIES

The primary role of PMB graduate program faculty is to support PMB graduate students. PMB graduate faculty advisors are expected to establish coursework, research plans, and professional development plans with their students, work with the PMB Graduate Program to ensure students are funded through graduate assistantships or fellowships, and follow the guidelines for best advising practices.

The PMB program invests significant resources in every student who is admitted and students devote substantial time pursuing their educational goals. Positive advising and mentoring of graduate students fosters mutually beneficial relationships, leading to success for individual students and advisors, and enhancing the reputation of the PMB program and the University. The program aims to provide an excellent education and environment for professional development, while avoiding graduate student attrition, promoting a high rate of Ph.D. completion, and conserving limited resources. Effective advising is central to the achievement of these goals and requires collective effort from the PMB graduate faculty and the PMB Graduate Program.

Advising should be tailored to help students develop professionally for the careers in which they are most interested in pursuing. For example, many students are interested in careers outside of academia or in academic careers that are more strongly focused on education and outreach. Advisors and committee members should consider whether these students would be served by a dissertation that includes elements other than the traditional three-chapter lab- or field-based research focus. For instance, a student interested in outreach might have a chapter describing the development and assessment of a new outreach project, or a student interested in education might have a chapter that describes research on the efficacy of specific lab exercises that they evaluate as part of their TAing duties. Students interested in such directions should carefully consider the composition of their committee to assure it can provide the guidance and expertise needed for the student to succeed.

Advising resources

The University of Minnesota Graduate School has valuable resources for productive and successful advising, online at <https://grad.umn.edu/academic-career-support/advising>. All PMB graduate program faculty members are strongly encouraged to consult these resources; it does not take long to read them.

In addition, refer to:

- University policy “Mutual Roles and Responsibilities for Faculty and Graduate Students” online at <https://policy.umn.edu/education/doctoralperformance-appd>;
- The Dignity Project: <http://www.sos.umn.edu/resources-dignity-project>. Resources for advising and student success.
- Guidelines for successful mentoring (Appendix A); and
- Best advising practices for graduate student success (Appendix D).

Admissions

Advisors who recruit students to the PMB program have an obligation to help those students succeed. When students accept an admission offer, they are making a commitment to the PMB program, and

thus a comparable commitment is expected of faculty. Similarly, it is important that the program have high confidence that students conducting rotations will have a lab to call home for their theses. As such, rotations should be considered an opportunity for a lab to recruit a student, not an opportunity for an advisor to evaluate whether the student is a good fit for the program.

The PMB program values recruiting and assuring the success of students from diverse backgrounds and strives to give opportunities to members of communities (e.g., BIPOC) who are underrepresented in PMB and associated fields. To help recruit a diverse student body, the PMB program does not discourage applicants from students who attended the University of Minnesota or other local colleges or universities. More broadly, we urge advisors to consider mentoring students interested in research areas that might not exactly align with our own current research. Doing so may require some extra effort, but will make the program and scientific community stronger.

Advisor-Advisee compact

All advisors in the PMB Graduate Program must meet with each of their PMB students to discuss and sign the College of Biological Sciences' Advisor/Advisee Compact to Adhere to Respectful and Responsible Conduct. This document must be submitted to the PMB Graduate Program office (i.e., the GPC) and will be retained in the student's personnel file. The expectation is that this compact will be discussed and signed early in each student's first semester.

Advising statement

Each PMB graduate faculty member is strongly encouraged to develop a written advising statement that outlines their advising philosophy and expectations and to post this on their website and file it with the PMB Graduate Program office (i.e., the GPC). Faculty should revisit this document annually to ensure that the expectations match current conditions of lab research, funding, and program requirements.

Resources to get you started:

- Graduate student advising statement outline (Appendix B) and example (Appendix C).

Program process

To support your students through their program, refer to the PMB Graduate Student Handbook for step-by-step details on academic process (i.e., program requirements, registration advisory committees, preliminary exams, final exams) and resources available to University of Minnesota students.

Also refer to the PMB student semester-by-semester checklist and PMB course planning guide, both available on the PMB Graduate Program website:

<https://cbs.umn.edu/academics/departments/pmb/graduate-education/students/resources>.

Annual reviews for students

All University of Minnesota graduate students must have an annual review with their advisor and advisory committee. (See UMN policy: <https://policy.umn.edu/education/doctoralperformance-appb>.) The purpose is to evaluate students' academic performance and progress toward their degree. Progress

is evaluated against PMB program expectations: coursework, assistantships, thesis research, productivity, timeliness in fulfilling requirements, and professional development.

- > See the PMB Graduate Student Handbook for details on the annual review deadline, process, and online review form.

Students are best served when their advisor and advisory committee provide authentic evaluations that aim for reasonable goals and recognize achievement. Although the relationship of advisor and student is different from that of employer and employee, resources provided by the University Office of Human Resources also provide helpful guidelines for supervisors and advisors:
<https://humanresources.umn.edu/supervisor-resources>.

Student mental health

Student wellbeing is of prime importance for the PMB Graduate Program. Should you need help in assisting a student who is struggling with their wellbeing or mental health, you can reach out to the PMB GPC. The University also has many resources for you.

- Student mental health faculty and staff resources for assisting students in distress: <http://mentalhealth.umn.edu/facstaff/index.html>
- Crisis line: <http://www.mentalhealth.umn.edu/crisis/index.html>
- Student Counseling Services: <https://counseling.umn.edu/>
- Employee Assistance Program: <https://humanresources.umn.edu/benefits/employee-assistance>
- Office for Community Standards (responding to disruptive conduct, scholastic dishonesty, etc.): <https://communitystandards.umn.edu/>

ANNUAL ADVISOR ORIENTATION

All PMB faculty advisors with students in the upcoming academic year's new fall cohort are required to attend the annual PMB advisor orientation, which is co-led by the Director of Graduate Studies and the Graduate Program Coordinator. This applies to both new and experienced faculty advisors and to those who will have new students rotating in their labs. In addition, the annual advisor orientation will be open to all PMB graduate faculty members interested in participating.

The purpose of the annual advisor orientation is to better equip faculty advisors to support their students throughout their PMB program and to answer students' questions about the PMB Graduate Program and University guidelines. This orientation is one part of the PMB program's effort to bolster graduate student advising in PMB in response to student feedback on the biennial gradSERU survey.

ADVISORY COMMITTEE MEMBERSHIP

An important role of PMB faculty is to serve on students' advisory committees. This committee represents a partnership with both the student and the advisor in facilitating overall student success. Participation on these committees comes with the responsibilities of providing advice for student's education, research, and professional development; participating in annual reviews as well as individual student meetings when requested; evaluating student performance in the written and oral preliminary examinations; and evaluating the student's dissertation (or thesis for M.S. students). In addition to

supporting the students through feedback on research and meeting professional development goals, the advisory committee also plays an important role in independently observing the advisor-advisee relationship. If there are any concerns about that relationship, one or more members of the committee should inform the DGS so that actions can be initiated to address those concerns.

During preliminary examinations, committee members are allowed to ask students questions about any material that they think is relevant to a student's research, professional success, or is relevant to earning a Ph.D. in PMB. If a student's performance during preliminary examination causes concern about whether a Ph.D. through PMB is the best fit for the student's professional development or personal happiness, then it is important that committee members raise those concerns and that the committee consider whether the student should continue on in the program. The committee should carefully consider this at the time of the oral preliminary exam. It might be that earning a Ph.D. is not the right path for some students, despite their abilities and academic record, and that they might be happier and have greater professional success taking a different path. It also is possible that getting an M.S. degree is a valuable first step, one to be achieved before the student continues on to earn a Ph.D. either in the PMB program or in a different program better suited to the student's interests (see the Graduate Student Handbook for M.S. degree options).

FOSTERING RESEARCH SKILL DEVELOPMENT

A primary aim of the PMB graduate program is to foster research skill development among all PMB graduate students. One way in which research skill development is done is through rotations in the labs of PMB program faculty. The PMB program supports laboratory rotations for students who think they will benefit from spending time in a lab outside of their home lab or who have not yet identified an advisor. The nature of a rotation activity can vary widely among students and faculty; some rotations focus on reading the scientific literature or learning techniques, while others aim to accomplish particular experiments or analyses.

Most students have identified an advisor before joining the program or soon after joining the program. These students might not participate in rotations but are asked to actively participate in one or more faculty member's lab/group meetings, participate in a formal journal club, or another activity approved by the DGS. Faculty members are asked to welcome and foster such students.

Regardless of the nature of the research skill development activity (rotations or other options), it is expected that the student be engaged in regularly scheduled activities and to discuss progress and problems with you as hosting faculty. Faculty hosting students will be asked to evaluate their performance at the end of the semester in a one paragraph summary that will be 1) used by the DGS to help determine the student grade for the rotation and 2) shared with the student to provide formal feedback on their rotation. The program also urges faculty mentors and students to put in writing, at the beginning of the semester, what each expects from the experience, the time commitment, and the basis for evaluation.

- > See the PMB Graduate Student Handbook, for details on the research experience process.

Graduate student funding

The PMB Graduate Program is committed to supporting students both academically and financially and ensuring that student rights and responsibilities in their roles as graduate students and graduate assistant employees are recognized and maintained.

The PMB Graduate Program aims to provide all PMB graduate students with at least:

1. a one-semester research assistantship in the student's first semester;
2. a one-semester teaching assistantship;
3. fellowship funding for two summers;
4. career development funds;
5. coverage of additional student fees applied to international students

Advisors are responsible for working with the PMB Graduate Program to ensure their students are funded for remaining semesters and summers through research assistantship, teaching assistantship, or fellowship opportunities so that all PMB students are financially supported for the duration of their graduate career in PMB.

Graduate students are funded through graduate assistantships and fellowships. The duration, duties, and details of each appointment vary, but most are 50% effort—requiring an average of 20 hours of work per week over the term of the appointment. Assistantships and fellowships generally include a stipend, tuition benefit, and health insurance coverage. Students pay their own student fees (about \$600 per semester for domestic students and \$760 for international students (the program will cover the difference between domestic and international students each semester)) and health insurance contribution (\$130 per semester).

Costs per semester (fall and spring) for graduate assistants, as of fall 2021:

	stipend	tuition	health insurance
pre-orals students	\$10,004 (\$25.65/hour)	\$8,295	\$2,360
post-orals students	\$10,503 (\$26.93/hour)	\$1,314	\$2,479

PMB students generally attain the post-oral (a.k.a. FTE or advanced doctoral) status by the end of their fifth semester (fall of their third year).

STUDENT EMPLOYMENT RIGHTS AND RESPONSIBILITIES

See the PMB Graduate Student Handbook for details on student rights and responsibilities.

See also the:

- University policy: Mutual Roles and Responsibilities for Faculty and Graduate Students (<https://policy.umn.edu/education/doctoralperformance-appd>, and

-
- graduate student employment policy for details about compensation, tuition benefits, performance evaluation, leaves of absence, parental leave, safety, conflict resolution, etc.: (<https://policy.umn.edu/hr/gradstudentemployment>).

GRADUATE ASSISTANTSHIPS

Teaching assistantships

Teaching assistantships involve assisting the primary instructors with course preparation, leading lab sessions, giving lectures, grading assignments and exams, holding office hours, and other tasks related to the course. Teaching assistant (TA) obligations usually begin before the first day of class, and TAs must be available for meetings with instructors before the start of the semester. TAs must be on campus throughout the entire semester of their teaching assignment.

- All PMB doctoral students must serve as a TA for one semester.
- Beyond this core requirement, the PMB graduate program typically honors all requests for TA positions from students in good standing.
- The GPC will ask all PMB students and their advisors for TA position requests, this is usually done several months before the start of the semester.
- Students who need to fulfill the program's TA requirement may have higher priority for placement than other students.
- TA requests from students in their sixth year of study and beyond will receive lower priority than students who have not been in the program as long

Research assistantships

Research assistantships (RA) are generally associated with grants. Students and advisors should discuss the expectations, duties, and expected time commitment before the RA begins. These duties and expectations should be recorded in writing, so that they are clearly defined prior to the beginning of the RA.

FELLOWSHIPS

Students are encouraged to apply for fellowships and grants. The UMN Graduate School maintains information about some, but certainly not all, fellowships available to graduate students: <https://www.grad.umn.edu/funding-tuition/fellowshipsandgrants>. For fellowships that do not offer full support, the Graduate School or PMB may be able to provide supplemental funding.

SUMMER FUNDING

Regular PMB summer fellowships

The PMB program aims to provide all PMB students in good standing with summer support, in the form of a PMB summer fellowship, for at least two summers. The expectation is that the other two to three summers (depending on a student's progress) will be covered through fellowships (other than the PMB summer fellowship) or research assistantships.

- Application process (for students who have not yet received two summer fellowships):
- > The GPC will circulate a call for summer fellowship requests in early April.
 - > Students must have completed their most recent annual committee evaluation and submitted a current CV to the program.

-
- > Student will need to provide a list of other sources of summer funding and an outline of their summer research goals, a plan for achieving those goals, how their summer work will contribute to their degree progress, and their expected time to graduation.
 - > The PMB Awards Committee will review applications and make funding recommendations.
 - > The DGS will make final funding decisions.

Summer funding planning (and example)

Summer funding, or the uncertainty over receiving summer funding, is a source of stress for many students. For this reason, at the time that a faculty member agrees to serve as an advisor, the student and advisor should develop a plan for summer funding throughout the student's time in the program.

For example, a student and advisor might agree that the student is expected to apply for fellowships every summer (there are many of these within and outside of the university). If the student does not receive any of these fellowships, the advisor will support them with an in-hand grant during summer 1, during summers 2 and 3 the student will use their PMB summer fellowship program funding, and during the 4th summer (and 5th summer if necessary) the advisor will provide support. An advisor also might say that they are not able to commit to more than a total of three summers of funding.

Summer fellowship credit for advisors

Some students may not need PMB summer support, either because they are very successful at being awarded external summer fellowships or an advisor has funds available to support that student for all the summers that they are in the program. The program will give summer-fellowship-credit to the advisors of these students. For example, if a student who earns a Ph.D. has relied on only one summer of PMB summer fellowship support, then the advisor can use the one summer of credited support for another PMB student in their lab, even if that other student has already received two years of PMB summer fellowship.

Summer funding constraints

There will be situations when advisors have no money to support students. (This is different than advisors not wanting to spend money to support a student.) If an advisor finds themselves in the situation of wanting to recruit a student, but not having funding for summer support, then the advisor should contact the DGS, as early as possible, to arrange for funding. It is expected that the program will make every effort to assure students are supported for five summers. However, the program (DGS and Steering Committee) may decide to not admit students to the program if those students intend to work with advisors who consistently rely on the program to provide summer support for their students. Conversely, in some years, financial constraints might limit the PMB Graduate Program's ability to provide summer funding. During these years, the DGS will talk with advisors to arrange funding.

Competitive summer fellowships

In some years the program may have extra funds to support competitive summer fellowships. These fellowships will be available only to students who have already been supported by the program for two years. The program will notify students when these fellowships are available. To apply, a student will need to provide the same information that they provide when they are asking to use their PMB summer fellowship (above). In addition, the student should explain how they have been supported in

past summers, how they expect to be supported in future summers, and what fellowships they have applied for and received. The student's advisor also must submit a letter that explains what other funds are available for supporting the student, the expectations for how the student will be supported in the future, and the expected timeline for the student to complete their dissertation. The advisor will be asked to submit the letter directly to the GPC.

During the years when competitive summer fellowships are available, partial or full funding will be provided to students selected by the Awards Committee and the DGS, on the basis of the following criteria:

- Making satisfactory progress towards their degree, as indicated in the annual evaluation due on March 31.
- Demonstrated excellence in research.
- Accomplishments that are notable for a student at that stage in their education (e.g., publications, research grants, fellowships).
- Advisor has a solid record of providing summer funding for their advisees.
- Priority is given to applicants who have not previously received competitive summer fellowships and for students who have not yet entered their sixth year.
- Students who are not in good standing will be ineligible for PMB summer support (they may be supported by an RA), even if they have not previously received summer support. (See the PMB Graduate Student Handbook for details on the basis for good standing in graduate school.)
- PMB summer fellowships will be processed in June in the form of a one-time scholarship. For U.S. citizens, no taxes are withheld from these awards—although it is quite possible that students will owe taxes on these awards. Students who are not U.S. citizens will pay taxes on this money at the time of the award.

CAREER DEVELOPMENT FUND

The PMB program provides each PMB student with a career development fund when they join the program. They may use this money for professional development opportunities and for travel to professional conferences, workshops, and courses, or for other activities related to presenting research, networking, and developing research and professional skills. This money may not be used for direct support of research projects, including travel to field sites.

To use career development funding:

- > Students should send an email to the GPC with a brief proposal and justification for their plans, including details on the costs (travel, lodging, registration, etc.).
- > The DGS and GPC will review the plans and check the student's career development fund balance.
- > Students should register to participate and book travel only after getting approval for their travel and verification of their funding balance from the program.
- > Students must submit all expense reimbursement requests through the online expense reimbursement system (Chrome River).

NOTE: We encourage students to apply for outside travel grants, to supplement their career development fund. Further, they should plan to use any outside travel grants they receive before drawing on their career development fund.

SUPPLEMENTAL TRAVEL GRANTS/FUNDING

During some years the PMB program may have additional funds to support travel and training, beyond what is available to students through their career development funds. In these years, a call will go out to all students, and the DGS, ADGS, and GPC will decide how to distribute the funds, in consultation with the PMB Awards Committee.

PMB Program Commitment to Diversity, Equity, and Inclusion

The PMB Graduate Program strongly supports and values a diverse, equitable, and inclusive learning community that fosters the academic and personal growth of students, faculty, and staff of all backgrounds.

As a program, we are specifically committed to:

- Eliminating barriers associated with systemic racism and bias, particularly in the recruitment and success of a diverse scholarly community.
- Elevating the voices of diverse scholars, particularly those from B.I.P.O.C. communities.
- Providing opportunities to learn from people with a broad range of backgrounds and experiences.
- Valuing the time and effort involved in community-engaged research.

We recognize that commitment to diversity, equity, and inclusion requires both education and action. Through the many resources listed below, the University of Minnesota provides a wide range of opportunities to help PMB grad program students, faculty, and staff to achieve this commitment.

INFORMATION AND RESOURCES

UMN Office for Equity and Diversity (OED) — <https://diversity.umn.edu/>

Graduate School Diversity Office — <https://grad.umn.edu/diversity>

CBS Equity, Diversity and Inclusion (EDI) — <https://cbs.umn.edu/about/equity-diversity>

CFANS Office of Diversity and Inclusion — <https://cfans.umn.edu/about/diversity-inclusion>

Funding

- PMB Graduate Program application fee waiver
 - > Prospective students requesting the waiver will contact the GPC directly during their application submission
- Diversity of Views and Experiences (DOVE) Fellowship
 - > <https://grad.umn.edu/funding/program-requests-nominations/nominations/diversity-of-views-experience-fellowship-dove>
- Interdisciplinary Center for the study of Global Change (ICGC) Fellowship
 - > <https://icgc.umn.edu/funding/icgc-fellowships/icgc-scholar-fellowships>
- Leadership in Equity, Inclusion and Diversity (LEID) Fellowship
 - > <https://grad.umn.edu/funding/current-students/apply-directly/leid-fellowship>

Diversity, Equity, and Inclusion training, education, practice

- Equity and Diversity Certificate (<https://diversity.umn.edu/certificate>). Helps participants develop tools necessary for advancing equity and diversity in all aspects of their personal and professional lives. It's free of charge and open to students, faculty, staff, and alumni on all campuses of the University of Minnesota.
- Cross-Cultural Discussion Groups (<https://iss.umn.edu/programs/disgroup/default.html>) — a unique opportunity to meet other University students from a variety of colleges, majors, and nationalities in a fun and relaxed atmosphere.

-
- Diversity Community of Practice — <http://dcop.umn.edu/>
 - The Dignity Project — <http://www.sos.umn.edu/resources-dignity-project>

Mental health

- Student mental health resources — <http://www.mentalhealth.umn.edu/>
- Boynton Mental Health — <https://boynton.umn.edu/clinics/mental-health>
- Surviving and Thriving in Higher Education video series — <https://www.youtube.com/channel/UC4jExrOEggZmJM6EmziU6NA>
- Student and Academic Success Services — <https://sass.umn.edu/>
- Earl E. Bakken Center for Spirituality and Healing events — <https://www.csh.umn.edu/community-engagement>
- The Science of Well-Being – Coursera course from Yale — <https://www.coursera.org/learn/the-science-of-well-being>
- Advising resources — <https://grad.umn.edu/faculty-staff-toolkit/faculty-advising-resources>
- BIPOC Mental Health Collective — <https://counseling.umn.edu/bipoc-mental-health-collective>

Racial and cultural diversity

- Community of Scholars Program (COSP) — <https://grad.umn.edu/diversity/community-of-scholars-program>. The Graduate School’s COSP provides Native Americans and graduate students of color with unique academic and professional growth opportunities.
- Graduate School Diversity Office Summer Institute — <https://grad.umn.edu/diversity/summer-institute>
- Black Graduate and Professional Students Association (BGAPSA)— <http://www.bgapsa.com/>
- Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) – UMN Chapter — <https://gopherlink.umn.edu/organization/SACNAS>
- Graduate Students of Color Alliance (GSOCA) — <https://gopherlink.umn.edu/organization/3515>
- Black Student Union — <https://gopherlink.umn.edu/organization/bsu>
- Circle of Indigenous Nations — <https://mcae.umn.edu/about-us/circle-indigenous-nations>
- Asian-American Student Union at UMN — <https://www.asu-umn.org/>
- Association of Multicultural Scientists (AMS) — <https://gopherlink.umn.edu/organization/2151>
- Multicultural Center for Academic Excellence — <https://mcae.umn.edu/>
- Council of International Graduate Students — <https://sites.google.com/umn.edu/cigsumn>
- English language resources for multilingual students — <https://ccaps.umn.edu/esl-resources/students>

Gender and sexuality

- Gender and Sexuality Center for Queer and Trans Life — <https://gsc.umn.edu/>
- MN Queer Science — <https://sites.google.com/site/mnqsci/>
- oSTEM — <http://ostem.umn.edu/>
- Interactive map of gender-neutral restrooms on campus — https://egis.umn.edu/twincities/index.html?config=config_gender_neutral_restrooms.json

Women in science

- Women’s Center — <https://womenscenter.umn.edu/>
- UMN Women’s faculty cabinet — <https://faculty.umn.edu/sponsored-organizations/wfc>

-
- UMN Women and Girls of Color and Indigenous Women and Girls Initiative — <http://womengirlsofcolor.umn.edu/>
 - Artemisia Leadership Initiative — <https://cfans.umn.edu/academics/careers-internships/artemisia>
 - Graduate Women in Science — <https://www.gwis.org/>

Student veterans

- University Veterans Services — <https://onestop.umn.edu/veterans>
- Career resources for veterans — <http://www.career.umn.edu/veteran-students>
- Student Veterans Association — <https://gopherlink.umn.edu/organization/1474>

Disability resources

- Disability Resource Center — <https://disability.umn.edu/>
- Interactive map to accessible entrances on campus — https://egis.umn.edu/twincities/index.html?config=config_accessibility.json

Family resources

- Student Parent Help Center — <http://www.sphc.umn.edu/>
- Lactation resources — <http://www.sphc.umn.edu/lactation-resources>
- Child Development Center (UMN daycare) — <https://www.cehd.umn.edu/ChildDevelopmentCenter/>
- Child Care Locator resources — <https://humanresources.umn.edu/family-resources/child-care>

Support resources

- Bias Response and Referral Network — <https://bias-response.umn.edu/>
- Nutritious U Food Pantry — <https://boynton.umn.edu/food-pantry> (For any UMN student. No proof of need is necessary.)

Harassment and discrimination

PMB graduate faculty must abide by University and programmatic policy, including policies on sexual and other harassment and discrimination. Violations of these policies will not be tolerated. PMB graduate faculty members who are found by the University of Minnesota Office for Equal Opportunity and Affirmative Action (EOAA) to have violated these policies, or found to have subjected others to harassment in any aspect of the program (including the laboratory, classroom, off-campus UMN-related trips, or to any member of the University Committee while on or off campus) will be subject to consequences up to and including termination from the graduate faculty and/or removal as thesis advisor or committee member from all associated student committees. These consequences are crucial to protect the integrity of student training in our program, and are consistent with the goals of the University of Minnesota President's Initiative to Prevent Sexual Misconduct (<https://president.umn.edu/content/presidents-initiative-prevent-sexual-misconduct-key-links>).

Relevant policies

- University of Minnesota <https://policy.umn.edu/hr/sexharassassault>.
- Equal Opportunity and Affirmative Action Policies and Directives: <https://diversity.umn.edu/eoaa/policiesanddirectives>.

Reporting

The EOAA office handles instances of alleged sexual harassment (<https://diversity.umn.edu/eoaa/home>).

Report occurrences of sexual violence or threats immediately by calling 911 or University Police (612.624.3550).

All PMB graduate faculty members and staff (including postdoctoral researchers and fellows), and graduate students are considered “mandatory reporters” under University policy Title IX laws, which define responsibilities of employees in advisory and supervisory positions to report instances of sexual assault, stalking and relationship violence, or harassment (<https://policy.umn.edu/hr/sexharassassault>), and therefore are obligated to report harassment or discrimination to the University’s EOAA office.

While University employees are mandatory reporters, there are a few exceptions; counselors at Boynton Health Center, the Student Counseling Center, and at the Aurora Center are NOT mandatory reporters and can be spoken to in confidence.

Resources are available to help students and faculty better understand the definitions of harassment and to obtain training in how to maintain an inclusive, harassment-free environment:

- University policy on sexual harassment
- EOAA Workshop and Training Schedule
- Equity and Diversity Certificate Program

NOTE: Graduate students who are found to be engaged in unethical behavior or to be perpetrators of sexual harassment may be removed from the program without a degree.

While the DGS and GPC can be first points of contact and help to support students, post-docs, staff, and faculty with problems associated with harassment, resources are also available for students or faculty to report an incident or inappropriate experience to someone outside of the program.

- Student Counseling Services: <https://counseling.umn.edu>. Counselors are not mandatory reporters under University Policy and can be a fully confidential first point of contact for sexual harassment concerns.
- Aurora Center: <http://aurora.umn.edu>. Aurora Center employees and volunteers are not mandatory reporters under University Policy and can be a fully confidential first point of contact for sexual harassment concerns.
- EthicsPoint: <https://secure.ethicspoint.com/domain/media/en/gui/9167/index.html>. EthicsPoint is a service independent of the University and can be used to anonymously report “any situation or University conduct you believe violates an applicable law, regulation, government contract or grant requirement, or University policy.”
- Student Conflict Resolution Center: <http://www.sos.umn.edu>.

EQUAL OPPORTUNITY

The University of Minnesota is committed to providing equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression.

Direct concerns or complaints about discrimination to the EOAA office (<https://diversity.umn.edu/eoaa/home>) and Bias Response and Referral Network (<https://bias-response.umn.edu/>). Policy: <https://diversity.umn.edu/eoaa/policiesanddirectives>

College of Biological Sciences Code of Conduct

The College of Biological Sciences (CBS) is committed to fostering the education of students and postdocs in a welcoming and supportive environment. All students, postdocs, fellows, staff and faculty are expected to treat each other in a respectful, professional manner. We are all responsible for holding our student, postdoc, staff and faculty community to professional and respectful standards, both on and off campus (e.g. at University field stations, or during travel for conferences, meetings or field work). In addition to following University policies, we ask all members of CBS to support and adhere to our community norms of respectful and responsible conduct.

Expected Conduct

CBS has established the following standards of conduct:

- Act ethically and with integrity
- Be fair and respectful to others
- Be welcoming and inclusive of all people
- Manage, supervise, instruct, and advise responsibly
- Protect, preserve, and responsibly use University resources and property
- Promote a culture of compliance with legal requirements
- Preserve academic freedom
- Ethically conduct research, teaching, and community engagement
- Avoid conflicts of interest
- Carefully manage public, private, and confidential information
- Promote physical and mental health and safety

Sanctions for Unacceptable Behavior

Sanctions will be commensurate with the nature and severity of the offense, whether violations have been persistent, and the impact of the offense on any other people involved. Sanctions may include one or more of the following:

- Warning
- Probation
- Confiscation of goods possessed, used, or shared illegally or in an unauthorized manner
- Restitution
- Reassignment of work activities
- Paid or unpaid leave of absence
- Termination of employment

Unacceptable Behavior

CBS will take disciplinary action for the following offenses:

- Sexual harassment, sexual assault, stalking, and relationship violence
- Discrimination
- Retaliation
- Illegal or unauthorized possession, use, or sharing of weapons, drugs, or alcohol
- Unethical research, including falsification of data or information
- Scholastic dishonesty
- Unauthorized use, including misuse, of facilities, equipment, or services
- Theft, property damage, or vandalism
- Violation of University rules
- Violation of Local, State, or Federal Laws

Reporting Misconduct

Report suspected or alleged misconduct to any or all of the following:

- A supervisor or instructor
- Departmental or Collegiate Leadership
- Human Resources in the College of Biological Sciences (cbshr@umn.edu)
- the Equal Opportunity and Affirmative Action (EOAA) Title IX office (eoaa@umn.edu)
- anonymously via the U Report system (1.866.294.8680, <https://compliance.umn.edu/report>)

If you report suspected or alleged misconduct, then the University of Minnesota has a policy that will protect you from retaliation. Note that all University employees are required to report sexual misconduct to the Title IX office.

Respectful and responsible conduct in the PMB Graduate Program

The PMB Graduate Program and the College of Biological Sciences is committed to fostering the education of students and postdocs in a welcoming and supportive environment. All students, postdocs, fellows, staff, and faculty are expected to treat each other in a respectful, professional manner. We are all responsible for holding our student, postdoc, staff, and faculty community to professional and respectful standards, both on and off campus (e.g., at University field stations, or during travel for conferences, meetings, or field work). In addition to following University policies, we ask all members of CBS to support and adhere to our community norms of respectful and responsible conduct.

1. Harassment of any kind, including but not limited to verbal abuse and sexual harassment, will not be tolerated.

- The relaxed atmosphere in some labs and in some environments can sometimes lead to thoughtless statements. Choose your words carefully and be mindful of your audience—all of our University sponsored facilities and events are professional environments, and you are among colleagues.
- We expect CBS community members to be civil when interacting with others in the lab, the field, and during social activities. Differences of opinions and points of view are normal and are encouraged in a scientific environment; however, we have a responsibility to treat each other with respect. Avoid personal attacks when engaging in exchanges of ideas.
- Excessive drinking at CBS, departmental, or graduate program events can create an environment in which harassment is more likely to occur and is prohibited. Intoxicated behavior by students, postdocs, staff, or faculty will be reported to the dean, department head, and DGS, as appropriate. In extreme cases, intoxicated individuals may be escorted from the event by the host or by campus security, if necessary. These same behavioral expectations hold at field stations and on research or meeting travel away from campus.
- Sexual harassment is defined according to the [Board of Regents policy](#) as “*unwelcome conduct of a sexual nature under either of the following conditions:*”
 - a) *When it is stated or implied that an individual needs to submit to, or participate in, conduct of a sexual nature in order to maintain their employment or educational standing or advance in their employment or education (quid pro quo sexual harassment).*
 - b) *When the conduct: (1) is severe, persistent, or pervasive; and (2) unreasonably interferes with an individual's employment or educational performance or creates a work or educational environment that the individual finds, and a reasonable person would find, to be intimidating, hostile, or offensive (hostile environment sexual harassment).”*

As a community, we believe that all CBS students, postdocs, staff and faculty should be provided a training environment and/or workplace that is free of unwelcome sexual innuendos or insinuations. Individuals in positions of relative power are expected to understand that those with less power may participate in, submit to, or fail to object to sexual conduct or other unprofessional conduct because they fear negative repercussions if they do not, and not because they are comfortable with the conduct. CBS community members are also expected to understand that individuals may perceive comments or touches in different ways. What one might consider light banter or an innocent touch may make another uncomfortable, or even be experienced as threatening or intimidating.

2. What to do if you experience or witness inappropriate behavior

- If you have been subjected to sexual harassment or harassment based on your gender, race, religion, sexual orientation, gender expression, disability, national origin or other protected identity, we encourage you to report it to the [University's EOAA office](#), which will work with you to determine whether to address the concern through informal problem-solving or a formal investigation.
- If you have been subjected to other forms of harassment, bullying, abuse of power, or other inappropriate behavior, we encourage you to report your concerns to your supervisor, Department or College Leadership, Human Resources, Office of Community Standards, or other appropriate reporting resource.
- The [Aurora Center](#) is a confidential resource that specializes in issues like sexual assault and relationship violence, but also sexual harassment. They may be able to provide support in situations where you are not yet ready to go to the University's EOAA office with a complaint. College, departmental, and program leadership can also be first points of contact; however they are required to report any sexual misconduct they learn of to the [University's EOAA office](#).
- Faculty, staff, postdoctoral researchers and fellows, and graduate assistants must report sexual harassment and other sexual misconduct that they learn about in the course of performing their job duties to the [University's EOAA office](#). Except, non-supervisory and non-Human Resources employees do not need to report sexual harassment directed at employees, although they are encouraged to do so. Upon receiving a report, the [University's EOAA office](#) staff will determine whether the issue needs to be investigated.
- Under [University policy](#), protections from retaliation are in place. While it is natural to be reluctant to report such incidents for fear of reprisal or creating problems for someone, reporting any incident of harassment is important to prevent further escalation and to hold our community accountable.
- If you become aware of harassment or if it is reported to you, it is appropriate to respect the privacy of the individuals involved to the greatest extent possible (keeping communication about it to the University's EOAA office and those who "need to know"). This is a common courtesy and will help protect the person who made the complaint from retaliation. Understand that sharing the identities of or information about complainants or witnesses beyond a "need to know" circle can, in some circumstances, constitute retaliation under [University policy](#).
- All reported incidents will be taken seriously, and referred to the appropriate entity.
- At College, departmental, or graduate program events both on and off campus, harassment of any form by students, postdocs, staff or faculty will not be tolerated and could result in removal from the event by the host or campus security if necessary. The incident will be reported to the College, department and/or program leadership, and, in cases that involve sexual harassment, to the University's EOAA office. Individuals subjecting others to harassment in any College, department, or program-related activity (including the laboratory, classroom, or off-campus UMN-related trips) may be terminated from graduate student or graduate faculty status in the program, and/or subjected to disciplinary action at the College level.

3. How to maintain an inclusive, harassment-free environment

Resources are available to help students, postdocs, staff, and faculty better understand the definitions of harassment and to obtain training:

- University policy on sexual harassment: <https://policy.umn.edu/hr/sexharassassault>
- EOAA Workshop and Training Schedule: <http://eoaa.umn.edu/resources>
- Equity and Diversity Certificate Program: <http://diversity.umn.edu/certificate>

4. Reporting incidents

While the DGS (for graduate students), CBS Associate Dean for Graduate Studies (for graduate students and postdocs), CBS Associate Dean for Faculty (for faculty), and CBS HR (for staff) can serve as a reporting resource and a first point of contact, resources are also available for students, postdocs, staff, or faculty who feel they need to report an incident or inappropriate experience to someone outside of the department, College, or graduate program.

- Anonymous reporting service, Ureport: <https://compliance.umn.edu/report> administered by a service independent of UMN, can be used to anonymously report “any situation or University conduct you believe violates an applicable law, regulation, government contract or grant requirement, or University policy.”
- Student Conflict Resolution Center: <http://www.sos.umn.edu/>
- Office of Conflict Resolution: <http://ocr.umn.edu/>
- EOAA Reporting Resources: <http://eoaa.umn.edu/>
- The Aurora Center (a confidential support resource): <http://aurora.umn.edu/>

We appreciate the commitment of our faculty, postdocs, staff, and students to creating a safe, inclusive, and constructive environment. Our collective experience in class, in the laboratory and field, and at scientific/social events is important, and a comfortable climate is a big part of our program’s and College’s success. We also have an obligation under University policy to provide the best possible experiences and opportunities for our students, postdocs, staff, and faculty, while CBS community members each individually have a responsibility to bring constructive, collaborative behavior to our College. By working together as a respectful community, we can ensure that everyone finds the experience valuable, enriching, and positive.

Appendix A: Guidelines for successful mentoring

Keys to S.U.C.C.E.S.S. for Graduate Students and Faculty Mentors

Developed by the Work Group on Advising & Mentoring

Downloaded from <http://gradvising.umn.edu/success.html> 11 May 2018

A graduate student is encouraged to set clear expectations for academic relationships. Advisees who have a clear idea of how the advisor and other mentors can help them achieve their educational and career goals will get the most out of relationships with mentors and advisors. Create a plan to guide you as you work with mentors to complete your degree.

Understand your rights and responsibilities. Advisees have a right to be treated with respect; this includes the right to study in a harassment-free environment, have equal access and opportunity in all educational programs without individual or systemic barriers, and seek religious and disability accommodations. Advisees are expected to contact appropriate offices to request accommodations, seek advocates and mediation.

Communicate with advisor/mentors regularly. The success of any effective relationship is dependent on communication. Advisees need to make sure they communicate with faculty mentors regularly, not just when facing a crisis. Communication includes sharing successes, asking questions and seeking feedback in problem solving, which allows an advisor to provide effective, timely support, and can help prevent a crisis.

Connect with resources to nurture your well-being. Pursuing a graduate or professional degree can be stressful, and it is important for advisees to connect with resources that will nurture their emotional, physical, cultural, and spiritual well-being – whether individuals, student services programs, or interest/affinity groups. Putting personal interests on hold while in school often creates stress, which hinders rather than helps progress to degree. If your advisor does not appear to have your best interest at heart, you have a right consult other mentors and to seek a new advisor.

Establish milestones to reach degree completion. Take time to develop an Individual Development Plan in order to know, understand, address and update progress with your specific writing, teaching, research and professional development goals. Review with peers and mentors. Reflective practice allows you to plan for success.

Spend your time wisely. Graduate school success is highly dependent on how well students manage their time and that of their advisor. Learning effective time management skills is a start, using them is a necessity for personal development and for interacting regularly and effectively with advisors.

See yourself as part of a community. Show up at departmental events and invite faculty to your events, offer to be part of new student recruitment, set up resource sharing for teaching assistants, enroll in professional development programs to improve skills and deepen networks. Engaged students report increased satisfaction and progress.

A Faculty Mentor is encouraged to support your student’s goals and career plans.

Advisors who listen to graduate and professional students’ goals, share ideas and additional possibilities, and ask future-looking questions will help their advisees to find and create their own appropriate career paths. Take care to distinguish between your hopes and their hopes.

Understand your roles and responsibilities. One of the key roles an advisor plays is that of a mentor. As a mentor, the advisor might help the advisee assess their academic strengths and weaknesses as well as assist in course selection and exploring possible research areas. In addition, an advisor also has a responsibility to treat advisees with respect and to ensure that the advisee is able to pursue their academic work in a harassment-free environment with access to any needed accommodations.

Communicate timely feedback respectfully and constructively. Direct and honest feedback will help students assess errors and move forward when it is informational, specific, constructive, timely, positive, personal and differential. Faculty mentors, especially dissertation advisors and workplace supervisors, are expected to refrain from engaging in intimidation and humiliation in workplace and professional interactions with students whatever the setting or context.

Create a safe environment for your graduate student. Advisee will experience highs and lows: exhilaration, fear, possibility, frustration, joy, anger. Ideally, an advisor will hear and talk about these experiences and be equipped to provide appropriate guidance, including referrals. Not “just” students, RAs or TAs, advisees have full, complex lives; therefore, advising includes learning about/ creating an environment free from racism, sexism, homophobia and other forms of prejudice, intolerance, or harassment. Because students are also future colleagues, it is critical that advisors understand and respectfully navigate current power dynamics.

Expect and elicit on-going progress to degree completion. To create effective annual student progress reviews, schedule regular short meetings each term: a first discussion establishes goals with steps/suggestions/resources for meeting them; a mid-term email exchange allows for updates and adjustments; a term-end review provokes mapping out next steps and goal setting.

Serve as a resource and provide networking support. When a faculty or staff member commits to serving in a mentoring role, that person is an on-going contributor to the success of the student. Talking through ideas, linking students to appropriate resources and suggesting ways to broaden or deepen the student’s network are essential components of this role.

See yourself as part of a community. Create opportunities for informal socializing within department events and support student groups in their events. Know your local resources for graduate student professional development and bring this information to your department. Talk with peers across institutional types to help students understand multiple career paths.

Appendix B: Outline of advising statement

Provided by Dr. Lanyon, Dean of the Graduate School, spring 2018.

GRADUATE STUDENT AND POSTDOCTORAL FELLOW ADVISING STATEMENT

Dr. ABC

THESIS

- TOPIC ORIGIN: *Who comes up with the idea for the thesis?*
- ORIENTATION: *Are there any constraints on the kind of topics such as being question-oriented, hypothesis driven, applied, community-engaged....*
- THESIS vs. PUBLICATION: *How does the thesis relate to any existing or planned publications?*

PUBLICATIONS: *What are your expectations regarding your and your student's participation in publishing?*

AUTHORSHIP: *What are your expectations regarding your and your student's roles as authors?*

CAREER PATHS: *What are your expectations about the career paths your students will pursue?*

MEETINGS:

- LAB GROUP MEETINGS: *Does your lab group meet and, if so, what are your expectations regarding student attendance and participation?*
- INDIVIDUAL MEETINGS: *What are your expectations regarding the frequency and nature of one-on-one meetings with your students?*

INDEPENDENCE: *What are your expectations regarding the degree to which your students work independently?*

NATIONAL MEETINGS: *What are your expectations regarding student attendance and participation at national meetings?*

GRADUATE STUDENT STIPENDS: *What financial commitment do you make to supporting your students and what are your expectations of them?*

RESEARCH FUNDING: *What are the relative roles of you and your students regarding obtaining funding to support the students' research?*

COURSEWORK: *What expectations do you have regarding coursework above and beyond the expectations/requirements of the graduate program?*

GRANT PROPOSAL WRITING: *Do you expect your students to participate in writing research and/or fellowship grant proposals?*

ORIGINAL LITERATURE: *What expectations do you have of your students regarding their familiarity with existing literature as well as keeping up on new scholarly works?*

TEACHING: *Do you expect your students to teach and if so, what courses and how often?*

PERSONAL LIFE: *What are your views about work/life balance?*

TIME MANAGEMENT: *What thoughts/suggestions do you have for your students regarding priorities and time management?*

RELATIONSHIPS WITH OTHER STUDENTS: *What are your expectations regarding how your students interact with other students in your lab, in the graduate program, and across the university?*

DEPT./UNIV. SERVICE: *What are your expectations regarding participation by your students in service functions within the graduate program, across the university, within their professional societies, and within the broader community?*

ETHICS: *What are your ethical expectations of your students?*

RESOLVING CONFLICTS: *If there are conflicts (e.g., between you and your student, between students, between your student and another faculty member) how do you prefer that they be resolved?*

INDIVIDUAL DEVELOPMENT PLAN: *Do you expect students to produce an IDP? If so, how often do you expect them to formally update their IDP?*

MENTORING: *Do you expect your students to have mentors other than their committee members? If so, what is your role (if any) in identifying mentors?*

Appendix C: Example advising statement

Revised February 8, 2018. Provided by Dr. Lanyon, Dean of the Graduate School, spring 2018.

GRADUATE STUDENT AND POSTDOCTORAL FELLOW ADVISING STATEMENT

Scott M. Lanyon

THESIS

- **TOPIC ORIGIN:** I expect my advisees to develop their own research topic within the discipline of systematic biology. In general, I expect my advisees to do research on birds but that is not essential.
- **ORIENTATION:** I expect my advisees to develop research projects that are designed as tests of competing hypotheses.
- **THESIS vs. PUBLICATIONS:** The thesis chapters should be written with the expectation that they be submitted as a series of publications. The exception is the first chapter which should be synthetic and describe how the subsequent chapters represent a cohesive research program. Ideally at least one chapter, or even all, will be submitted for publication prior to the defense.

PUBLICATIONS: Publishing is essential for most career paths followed by my advisees. In addition to preparing their thesis chapters for publication, I expect my advisees to be working on manuscripts that may be tangential to their thesis. By the time they graduate I expect my advisees to have multiple publications in the publication pipeline (published, in press, in review, in preparation).

AUTHORSHIP: Resolving authorship arrangements early is essential if we are to maintain positive relationships with our colleagues. I have no unique expectations as an advisor regarding authorship. If I have had significant involvement in a research project (developing the original idea, collecting data, analyzing data, and/or writing a portion of the manuscript) then I expect to be listed as an author. I prefer to decide roles and authorship at the first sign that an activity will result in a publication. This decision can be altered by mutual agreement at a later date if roles have changed.

CAREER PATHS: My job as an advisor is to help my advisees to be successful in their chosen career. I can't do that if I don't know what career is desired. I want my advisees to let me know the range of career paths in which they are interested at the earliest possible date. I will do my best to help my advisees obtain the experiences and skills needed to succeed in those various careers.

LAB GROUP MEETINGS: I expect my advisees to attend monthly lab group meetings that I schedule unless they are traveling or have some other unavoidable conflict.

INDIVIDUAL MEETINGS: I expect my advisees to schedule individual monthly meetings with me and to schedule additional meetings as necessary (see statement on INDEPENDENCE)

INDEPENDENCE: I expect my advisees to work without daily input or guidance from me. I am available for consultation, but they are expected to use their own good judgment. If an advisee needs input from

me in order to move forward, it is their responsibility to seek me out or schedule a meeting. I am happy to initially provide more regular guidance to advisees who are not used to working independently but by the time they leave the university I expect them to be able to function as independent scientists.

NATIONAL MEETINGS:

Developing a professional network is essential, regardless of career path. Therefore, I expect all my advisees to attend national meetings and to report on their research at those meetings. I will do my best to help find money to make this possible but obtaining support for meeting attendance should be a joint effort.

GRADUATE STUDENT STIPENDS: In collaboration with the graduate program, I guarantee funding for five years. The nature of that funding (TA, RA, Fellowship) is often unpredictable but there will be funding. Never-the-less, I expect my advisees to write and submit fellowship proposals where possible. Writing such proposals is excellent experience and receiving such fellowships increases a student's competitiveness.

RESEARCH FUNDING: Funding the research of my advisees is a joint responsibility. I will work with my advisees to find the necessary funding.

COURSEWORK: I don't have any standard course requirements beyond those of the graduate program. Instead I expect my advisees to have, or to develop while at the university, a solid background in the concepts and skills that their research and career path require. This could be accomplished in the form of coursework but also workshops and informal arrangements with other individuals (students, postdocs, faculty or staff). In systematic biology that generally means being very comfortable with multivariate statistics, R, and systematic theory and methodology generally.

GRANT PROPOSAL WRITING: Grant proposal writing is a critically important skill regardless of career path pursued. Therefore, I expect all my advisees to be active in writing proposals for both university and external funding opportunities (fellowships, research grants, travel grants...). By the time my advisees graduate I expect them to be able to list several funded grants on their CV.

ORIGINAL LITERATURE: Regardless of career path, a current knowledge of the literature is essential. Therefore, I expect my advisees to spend significant hours each week reading -Systematic Biology; Evolution; Molecular Phylogenetics and Evolution; American Naturalist; Trends in Ecology & Evolution; relevant taxon-focused journals).

TEACHING: Teaching is a tremendous way to learn to communicate complex concepts to a non-specialist audience. I expect all my advisees to be involved in teaching. I encourage graduate students to teach at least four semesters. The graduate program only requires two semesters but I don't think this gives students sufficient opportunity to learn to become excellent communicators. Furthermore, any career path pursued by my advisees will require that they be able to balance multiple diverse responsibilities (such as teaching and research). Graduate school is a low-risk place to learn to balance such responsibilities. I encourage students pursuing teaching careers to TA for multiple courses during their graduate career. This is more demanding of their time but this diversity of experiences is excellent training for the heavier and more diverse course loads of faculty at primarily teaching colleges. For postdocs interested in pursuing a faculty career, I will try to find an opportunity for them to do

sabbatical replacement teaching at the university or at one of the metro-area institutions. I invite all my advisees to give a guest lecture in one of my courses.

PERSONAL LIFE: I expect my advisees to have one. People who spend all their time on work activities generally tend to be less productive over the long term, less creative in their work, and frankly less fun as colleagues. People with a partner, and especially those with children, become severely stressed if they do not put sufficient effort and time into their personal lives.

TIME MANAGEMENT: This document makes it clear that I expect a lot of my advisees. The less time efficient a person is, the more hours/week it will take to meet those expectations. Therefore, I expect my advisees to learn and to practice good time management.

RELATIONSHIPS WITH OTHER ADVISEES: My advisees learn the most from other students and/or postdocs. Therefore, I expect my advisees to develop a great professional relationship with other people in my lab and in the graduate program generally. This relationship should be supportive, not competitive. Early career students should seek out the advice of late career students and postdocs. In turn, late career students and postdocs should be generous in providing advice.

DEPT./UNIV. SERVICE: I feel strongly that organizations run more efficiently and make better and more mission-driven decisions when everyone contributes their time to shared governance activities. Therefore, I think it is important for my advisees to gain experience in such activities. I do not expect these activities to take more than 1 or 2% of their effort.

ETHICS: My advisees should familiarize themselves with, and abide by, the University of Minnesota's code of conduct:
http://regents.umn.edu/sites/regents.umn.edu/files/policies/Code_of_Conduct.pdf

RESOLVING CONFLICTS: Communication is key to minimizing conflicts. For example, this document is an effort to clearly communicate my expectations to reduce the possibility of misunderstandings between my advisees and me. If you have concerns about your interaction with me or with anyone else, please don't hesitate to come talk with me. If you are uncomfortable speaking with me, the DGS, the Department Head, the College HR Lead, or the Office of Student Conflict Resolution. If you wish a conversation to remain anonymous, be sure to indicate that at the start of the conversation.

INDIVIDUAL DEVELOPMENT PLAN: I can only help you become better prepared for your career if I know what career(s) you are considering and would like to pursue. Therefore, I expect all my advisees to have an individual development plan and for them to share with me part or all of that IDP to the extent they are comfortable doing so.

Appendix D: Best advising practices for graduate student success

Adapted from the College of Food, Agricultural and Natural Resources Sciences: Best Advising Practices for Graduate Student Success.

Best practice	Student's & advisor's responsibility	Advisor's responsibility	Student's responsibility
Establish milestones for academic and research progress	<ul style="list-style-type: none"> • Within 60 days: Discuss and agree on milestones to track student progress. • By 2nd year for Ph.D. students or 2nd semester for M.S. students: Establish advisory and exam committee(s) and develop a course work plan. • Annually: Document and review student progress. 	<ul style="list-style-type: none"> • Communicate expectations with respect to independence and how student is to function in the fairly unstructured graduate school environment. • Clarify availability of continued funding (e.g., assistantships or fellowships). 	<ul style="list-style-type: none"> • Clearly understand your own motivations for going to graduate school. • Seek alternative or supplemental funding, as needed. • Consult the Director of Graduate Studies or Graduate Program Coordinator to ensure that program requirements are met on time.
Maintain open lines of communication and provide timely feedback	<ul style="list-style-type: none"> • Discuss an optimum meeting frequency and meet regularly. • Establish written expectations and schedules; update as necessary as the degree program progresses or with changing circumstances. 	<ul style="list-style-type: none"> • Comment on student's work (reports, draft posters, seminar presentations, manuscripts, etc.) within 30 days. • Be mindful student's time, remember they have numerous commitments. Give them enough lead time to complete work. • Communicate developments that may impact time to degree (e.g., planned absences, sabbaticals, termination of funding). • Understand cultural differences that might affect communication. 	<ul style="list-style-type: none"> • Submit progress reports, draft posters or seminar presentations, manuscripts, thesis drafts, and other work in a timely manner. • Be mindful of advisor's and staff time. They are here to work with you, but remember they have other commitments. Give them enough lead time to help you with questions or issues. • Inform advisor of changes in schedule, including any paid or unpaid leave. • Seek help from advisor or from other sources to resolve difficulties.
Understand the terms and conditions of graduate assistant employment	<ul style="list-style-type: none"> • Ensure that offer letters and terms of employment are understood. • Comply with business practices of the department/program. 	<ul style="list-style-type: none"> • Understand graduate student rights. • Provide a safe work environment free from intimidation, humiliation, or harassment. 	<ul style="list-style-type: none"> • Complete any required training (e.g., safety, responsible conduct of research, ethics) in a timely manner.
Develop research ideas and career goals	<ul style="list-style-type: none"> • Agree on the scope and sequence of thesis research (thesis proposal) and engage at all stages. • Clarify expectations for multiple tasks (e.g., teaching, work/life balance). • Develop student career goals; revisit and revise periodically. 	<ul style="list-style-type: none"> • Give constructive feedback on student's research ideas. • Mentor students as they apply for jobs and advise on effects to their degree plan. 	<ul style="list-style-type: none"> • Keep a journal of research ideas and activities. • Seek professional development opportunities.
Connect with the larger campus and professional community	<ul style="list-style-type: none"> • Recognize and respect cultural differences. • Seek opportunities for leadership and professional development skills such as: public speaking, research ethics, working across differences, collaboration, conflict resolution, and data management. 	<ul style="list-style-type: none"> • Help student network with colleagues at other institutions. • Support student participation in scientific conferences, campus seminars, and on committees within the U of MN and CBS. 	<ul style="list-style-type: none"> • Attend campus seminars and events. • Serve on committees within the U of MN and CBS. • Participate in graduate student orientation and recruitment activities. • Participate in scientific conferences (find external travel funding, as needed).