

University at Albany
Department of Atmospheric &
Environmental Sciences
Graduate Program Guide

2024–2025 Academic Year

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Applied Master's of Science Program

Graduate Bulletin Requirements

1. A minimum of 30 credits in graduate courses (500 level or above) is required for the Applied Master's (M.S.) degree
2. Twelve credits are required from the following courses that comprise the Applied M.S. core: ATM 501, 522, 530, 533, 540, 543, 561, and 563; and, GOG 504/PLN 538 and GOG 525
3. Student must select a track and take 12 credits from one (or more) of the tracks
 - a. Business Track: ITM 513, 601, 603, and 604
 - b. Data Analytics Track: IST 506; INF 528, 624, 625, and 627; and, MAT 565
 - c. Policy and Emergency Preparedness Track: EMH 500, 501, 502, 542, 609, and 659; PAD/EHC 555, 556, 572; ECO 581; and, POS/PAD 666/INT 513
4. Six credit internship (capstone requirement; ATM 690) and presentation/report

Timeline

Designed to be a one-year program, with 12 credits in the fall and spring semesters and six internship/applied research credits during the summer. The internship can also be completed during the academic year (i.e., three credits each semester), for 15 credits in the fall and spring semesters. Internships may be paid or unpaid; paid opportunities are prioritized, but we cannot guarantee that all internships will be paid.

Master's of Science Program

Graduate Bulletin Requirements

1. A minimum of 30 credits in graduate courses (500 level or above) is required for the Master's (M.S.) degree
2. Atmospheric science (18 credits, minimum):
 - a. Six credits of atmospheric physics: ATM 504 and any class with ATM 504 as a prerequisite
 - b. Six credits of atmospheric dynamics: ATM 500 and any class with ATM 500 as a prerequisite
 - c. Six credits of ATM 699 leading to an acceptable Master's thesis
3. Supporting courses (0–12 credits): Courses in other fields, as advised
4. Satisfactory completion of the Major Field Examination (i.e., a 30-min presentation of research)
5. Ancillary Duties: In addition to the completion of course requirements, satisfactory performance in some ancillary teaching, research, or practicum duties contributing to academic development is required, whether or not the student receives financial support from this institution. These duties will be assigned with educational objectives in mind.

M.S. Thesis and Presentation

Students should proceed with their M.S. thesis research in close collaboration with their advisor(s) following the requirements and timeline contained in the UAlbany Graduate Bulletin. The M.S. second reader will be available to the student for consultation.

The M.S. thesis should demonstrate the candidate's ability to successfully investigate a research problem, and their ability to arrive at results and conclusions that contribute to knowledge of the subject area. When the student and advisor(s) agree that the M.S. thesis is in final form, a copy should be submitted to the second reader and a date for the M.S. thesis presentation scheduled (referred to as the "Major Field Examination" in the Graduate Bulletin). The M.S. thesis second reader must be given the completed thesis two weeks before the scheduled presentation or The Graduate School's deadline for submission, whichever comes first (please see page 11). The student will present their thesis by giving a 30-min seminar to the department, followed by questions and comments from the audience.

Timeline

- **Semester #1**
 - Register for nine credits (12 credits if on external fellowship). Students should take ATM 500, 504, and either a third class or three credits of research (ATM 698)
- **Semester #2**
 - Register for nine credits (12 credits if on external fellowship), including dynamics and physics electives or research credits (ATM 698 and/or 699), as advised
 - Begin research if not begun during semester #1. Submit [application for approval of subject for Master's thesis](#) (Note: There is no deadline for this form, but it must be submitted before a student's Master's presentation. The title/subject listed on the form does not need to match the eventual thesis title.)
- **Summer # 1**
 - Work on Master's thesis research
- **Semester #3**
 - Register for nine credits (12 credits if on external fellowship) of courses or research credits (ATM 698 and/or 699), as advised
 - Continue Master's research
- **Semester #4**
 - Register for sufficient number of credits to have at least 30 graduate credits (including at least six credits of ATM 699 and required courses). Must register for nine credits if supported as a graduate, teaching, or research assistant (GA, TA, or RA) and 12 credits if on external fellowship
 - Complete research; write thesis; get thesis approved by thesis advisor and a second reader. The thesis should not exceed 150 pages in [The Graduate School format](#)
 - Apply for graduation. If in the PhD program and ending at the M.S. degree voluntarily, you will need to apply for a Supplemental Degree for which there is a fee. The form for this can be found in the Graduation Tab on MyUAlbany (please also see page 12). You must also withdraw from the PhD program via an email to The Graduate School
 - Present a 30-min seminar on your research to the department. (The seminar appears on your transcript as the Master's Field Exam)
- **Summer #2** (if necessary)
 - Complete semester #4 requirements, as needed
- **Semester #5 and beyond** (if necessary)
 - No need to register unless supported as a Research Assistant or in need of official student status.
 - Reapply for graduation; must apply for graduation in term that requirements are met even if applied in an earlier term.

The degree must be completed within seven calendar years from the date of initial registration unless an extension is requested and granted by The Graduate School.

Ph.D. Program Graduate Bulletin Requirements

The student follows a program of study and research approved by his/her doctoral advisory committee. Course requirements include a minimum of 60 hours of graduate credit in organized courses, seminars, and independent study in atmospheric, environmental, and other sciences or mathematics. Students must complete the Atmospheric Science coursework requirements for the M.S. degree. These requirements can be satisfied by coursework while earning an M.S. degree, subject to the approval of the DAES Graduate Program Committee. This program includes, in addition, research leading to an acceptable dissertation.

Departmental Examinations

1. **Written Qualifying Examination:** The student must pass a written exam that covers the student's particular program area: synoptic–dynamic meteorology, physical meteorology and atmospheric physics, atmospheric chemistry, climate dynamics, paleoclimatology, or environmental science.
2. **Oral Qualifying Examination:** The student must pass an oral examination that is administered by the student's doctoral committee. The exam is based on a written and oral prospectus prepared by the student that describes the basis and approach for the dissertation research.
3. **Dissertation Defense:** The student must satisfactorily complete an oral presentation and defense of the dissertation.

Ancillary Duties

In addition to the completion of course requirements, satisfactory performance in some ancillary teaching, research, or practicum duties contributing to academic development is required, whether or not the student receives financial support from this institution. These duties will be assigned with educational objectives in mind.

Dissertation

The student must submit a dissertation in their area of specialization, which represents a significant and original contribution in the field of atmospheric or environmental sciences.

Full Time Study in Residence

Each student in a doctoral program must engage in full-time study beyond the Master's degree, or equivalent at the University, for at least two semesters after admission to the advanced program. This requirement is designed to ensure a sustained period of intensive intellectual growth. For this purpose, a student will enroll in full-time study (nine credits) taken in each of two semesters, or in a regular semester and a summer session, not necessarily consecutive, which must be completed satisfactorily.

Graduate assistants holding a full assistantship may meet the full-time residency requirement by completing one academic year in such a position, including the satisfactory completion of a minimum of nine credits per semester plus satisfactory completion of assigned duties.

Admission to Candidacy

A student is admitted to candidacy for the degree of Doctor of Philosophy upon the following:

1. Satisfactory record in course and seminar study (i.e., 60 credit hours)
2. Completion of University residence requirements
3. Satisfactory completion of the research tool requirement
4. Satisfactory completion of the qualifying examinations

Department Guidelines

General Information

Students who consider the Master's degree as an option for an intermediate or terminal degree, should initially follow the guidelines for the Master's Program in order to satisfy the requirements for that degree. (Note: Doctoral students should not take ATM 699 unless they are certain they plan to obtain the M.S. degree since credits for ATM 699 are recorded as "Incomplete" until a Master's thesis is submitted and approved.)

Doctoral students must register for nine credits every semester if they are supported as a GA, TA, or RA, or 12 credits if they have an external fellowship, in order to maintain full-time student status. During the last semester before advancing to candidacy, a student may enroll in less than nine credits if they need less than nine to earn 60 credits (e.g., a student has 54 credits and only needs six to reach 60). If a student wishes to take less than nine credits, they must contact the Graduate Program Director for a waiver. Doctoral students achieving candidacy need register for only one credit of ATM 899. If a student wishes to take a class after candidacy, they must still enroll in ATM 899. Unless a leave of absence is requested and granted, all other students must register for at least three credits to satisfy the requirement of continuous registration.

A PhD student who seeks award of the M.S. "along the way" must obtain supplementary M.S. program activation via submittal of a form and fee. This form is available via the Graduation Tab on MyUAlbany (see also pages 11–12). If a student wishes to terminate with the M.S. degree, the student should, AFTER activation of the M.S. program has been completed, email their intention to withdraw from the Ph.D. program to the Graduate Program Director (who will forward that request to The Graduate School). A student who has converted to the M.S. program and is not an international student does not need to register if they have completed all M.S. requirements except for submittal of the thesis, but note that non-registered students do not have access to student services. International students are required to be registered in order to maintain student visa status.

Benchmarks for progress

0–36 credits: Register for credits to satisfy Master's degree requirements and/or courses to prepare for doctoral written exam as advised, along with doctoral research (ATM 898).

36–54 credits: Doctoral Written Qualifying Exam

Approximate time frame: Near, or shortly after, completion of Master's thesis or end of second year/beginning of third year (if intending to skip Master's degree) or end of first year/beginning of second year of studies in program for students with Master's and graduate credit from another institution.

60 credits: Doctoral Oral Qualifying Exam (Prospectus)

Approximate time frame: About one year after passing written exam. Upon passing oral exam, earning 60 credits, and satisfying the University Research Tool, and full-time study-in-residency, requirements, the department nominates the student for candidacy. Student must achieve candidacy at least one semester prior to graduation.

≥60 credits: Doctoral candidacy. Register for one credit of ATM 899 each semester; complete research; write dissertation; apply for graduation; present thesis seminar/oral defense.

The degree must be completed within eleven calendar years from the date of initial registration in the program unless an extension is requested and granted by The Graduate School.

Doctoral Written Qualifying Exam

The purpose of the Doctoral Written Exam is to evaluate a student's critical analysis skills and their ability to apply the scientific method to answer important questions in the field. The written examination focuses on the student's broad area of specialty, such as physical meteorology, synoptic–dynamic meteorology, tropical meteorology, atmospheric chemistry, climate dynamics, paleoclimatology, or environmental sciences. Each examination is constructed so as to accommodate the background and focus of individual students. Relevant questions can involve analyzing figures, equations, or results; designing an experiment to answer a scientific question; and/or, critical evaluation of papers in the scientific literature.

Students who enter with a Master's degree must take the written exam by the end of the third semester of enrollment, while students who enter without a Master's degree must take the exam by the end of the spring semester of their third year. Students are allowed two attempts to pass the written qualifying examination. A third attempt may be allowed in unusual circumstances and then only after approval by the Graduate Program Committee upon formal petition by the student, with support of the student's advisor(s).

The date of the written examination is determined by the student and their committee, although it must occur either two weeks prior to the first day of classes of the fall semester, one week prior to the last day of the fall semester exam period until the first day of classes of the spring semester, or one week prior to the last day of classes of the spring semester until two weeks after the last day of the spring semester exam period. The Graduate Program Director may approve exceptions to the above exam dates upon written request by the student's advisor(s). The student's thesis advisor(s) should email the Graduate Program Director stating a student's intention to take the exam and the names of the student's committee members. This step will assist in coordinating the exam with other students, particularly if multiple students have the same examining committee members.

The examining committee should consist of four faculty members, include the student's research advisor(s), and at least one member whose primary affiliation is with the Department of Atmospheric and Environmental Sciences. Only those with an earned doctorate or those who hold a full professorship are eligible to participate formally in dissertation advisement and the approval of a dissertation. Exceptions to the committee membership requirements can be made with the approval of the Graduate Program Committee. A student's examining committee may consist of the same people as the student's Ph.D. thesis committee; however, this is not a requirement.

The examining committee creates questions that are designed to test the student's ability to understand, synthesize, and critically evaluate material in their subfield, including topics covered in advanced graduate courses, as well as in the refereed literature. An examiner may give the same question to multiple students taking the exam at the same time. Students are required to meet with each committee member prior to the exam to discuss possible question topics or literature to review. The student must keep a record of these meetings and communicate the dates to the committee chair(s) (i.e., the thesis advisor(s)) who will include this information in the memo containing the outcome of the exam to the Graduate Program Director. The committee is required to review the exam prior to administration to evaluate the breadth, depth, and appropriateness of the questions. Following the exam, the committee shall meet to determine the outcome of the exam. The student's advisor(s) is(are) responsible for sending a memo with the outcome of the student's exam, the names of the committee members, and scores to the Graduate Program Director. An electronic copy of exam questions and the student's graded answers shall be emailed to the Graduate Program Director to be placed in the student's file.

Structure of Doctoral Written Qualifying Examination

1. Two questions are obtained from each member of the exam committee. The written exam consists of eight total questions, with four questions given to the student on each of the two days of the exam. The student must choose, and submit answers to, three out of four questions each day; only answers to these three questions will be evaluated and graded. To ensure that the student answers at least one question from each committee member, the first day should consist of both questions from two committee members, while the second day should consist of both questions from the other two members. The exam must contain a cover sheet, a sample of which can be obtained at <http://www.atmos.albany.edu/facstaff/kristen/GraduateProgram/>.
2. The committee chair(s) should reserve an ETEC conference room for the exam. The student may bring snacks, paper, pens/pencils, a pocket (i.e., non-cell phone) calculator, and a specially designated laptop (see item 4 below) into the exam room, but not their cell phone (the student may designate a contact person in case of a personal emergency).
3. The student should be given six hours per day to answer the questions, with a break for lunch. The committee may grant extra time if necessary.
4. The student may write the answers to their exam on paper or on a laptop computer (with internet access disabled) acquired from Kevin Tyle. The student must request the laptop from Kevin at least one month prior to the exam.
5. The student may bring one, 8.5" x 11" sheet of handwritten notes (both sides; no copied text, inserted graphics, cut and paste figures, etc.) into the exam. The sheet must be turned in with the student's answers. In addition, the examination committee may give the student hard copies of materials (e.g., journal articles, textbooks, data, research results, etc.) that may be used in answering the questions; these materials may be communicated to the student before the exam at the required meeting.
6. Exam questions are graded on a scale of 0 to 10 with an average score of seven or more considered to be passing. The examining committee must vote on whether the student passed the exam. The student passes the exam if the average score on the exam is seven or greater. For an average score in the gray area (around 6.5 to seven), the examining

committee decides whether to fail, pass, or conditionally pass (for instance, require additional course work to make up for a deficiency). The definitions of scores are:

- 10 Question is answered completely and thoroughly.
- 8.5 Answer contains appropriate analysis and information, with minor issues in either fact or logic.
- 7.0 Answer is characterized by some flaws in either logic or analysis, but meets minimum standards of PhD quality work.
- 5.0 Answer contains either a major logical flaw, error in the analysis of the results or lacks sufficient depth as would be expected for a PhD student.
- 3.0 Answer contains multiple major logical flaws, errors in analysis, and lacks sufficient depth.

Doctoral Oral Qualifying Exam/Prospectus and Candidacy

Upon successful completion of the Written Examination, the student, with the advice of their thesis advisor(s), has the responsibility to organize a Ph.D. thesis advisory committee. The student must submit the composition of the committee to the Graduate Program Committee Director. The committee must consist of at least four faculty members, one of which must have their primary affiliation in the Department of Atmospheric and Environmental Sciences. The student's thesis advisor will serve as chair (co-advisors serve as co-chairs) of the committee. Only those with an earned doctorate or those who hold a full professorship are eligible to participate formally in dissertation advisement and the approval of a dissertation. This committee will have the responsibility for guiding the student in all aspects of their dissertation research. The student is strongly encouraged, and expected, to confer with all committee members, individually or as a group, on a regular basis. At the discretion of the committee, the student may be required periodically to provide a written and/or oral progress report.

The student must submit a formal written thesis prospectus to their Ph.D. thesis advisory committee. The prospectus will serve as the basis for the oral qualifying examination and must consist of: (1) a clear statement of the research objectives and their scientific importance; (2) a critical review of the background scientific literature; and, (3) a carefully described proposed research plan including the method of attack to solve the problem. The prospectus is not intended to be a preliminary dissertation of the student's research. Description of the student's research should be included only in so far as it provides background for the proposed research plan. The prospectus should not need to exceed 25 pages of text (figures and references are not included in the limit). A student is expected to consult closely with their advisor while developing the prospectus.

The Ph.D. thesis advisory committee must have at least one week to read the formal thesis prospectus before the scheduled oral examination. The oral examination consists of an open departmental seminar with questions allowed from the audience followed by a closed session with the committee for additional questioning. The public presentation should not exceed 45 minutes. During the student's presentation, questions from the audience should be limited to clarifications only. Following the end of the presentation, the members of the audience who are not on the Ph.D. committee are free to ask questions related to the presentation. Once all of the general audience questions are answered, the general audience will be excused and the student will answer questions from the Ph.D. committee related to the topic and prospectus.

A student who conditionally passes the oral qualifying exam may be asked to correct demonstrated deficiencies through additional course work and/or by submitting a revised prospectus for approval by their thesis committee. A student who does not pass the oral examination after two tries may be allowed a third attempt in unusual circumstances and then only after approval by the Graduate Program Committee upon formal petition by the student.

The department, upon the student's completion of the residency and Research Skill (foreign language/computer programming) requirements, and the Written and Oral Ph.D. exams, nominates the student for Ph.D. candidacy. Candidacy should be attained at least one semester prior to the semester in which application for graduation is made.

Doctoral Research and Thesis Defense

Students should proceed with their doctoral dissertation research in close collaboration with their advisor(s). The other committee members will be available to the student for consultation. The research program may be carried out away from the University at Albany with the approval and supervision of the student's Ph.D. thesis advisory committee. Such students must also satisfy the University residency requirements.

The dissertation should demonstrate the candidate's mastery of a research problem, and their ability to arrive at results and conclusions that contribute significantly to knowledge of the subject area. In general, it is expected that the dissertation will be of the quality comparable to that found in articles in high-quality, well-regarded, refereed scientific journals. When the student and advisor agree that the doctoral dissertation is in final form, copies should be submitted to the rest of the student's committee and a date for the formal Ph.D. thesis defense scheduled. Committee members must be allowed at least two weeks to read the dissertation. The student will defend their dissertation by giving a 45-minute seminar to the full department followed by questions and comments from the committee. The thesis committee, including the student's advisor(s), must formally vote to approve the dissertation. If two or more members of the committee do not approve, the dissertation must be revised and resubmitted for approval at a later date. The Departmental Chair or their designee must also approve the dissertation. Approved dissertations are presented to The Graduate School in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Atmospheric Science.

Research Tool Requirement

A doctoral student can satisfy the requirement in any one of the following ways:

- By earning a grade of B or better in a graduate foreign language course
- By passing the University's Foreign Language Translation Exam. Students will be given approximately two pages of text in the foreign language of their choice to translate into English. Currently, the exam is offered in French, German, Italian, Portuguese, Russian, or Spanish
- By earning a grade of B or better in CSI 501.
- By obtaining formal certification of competency in a scientific computer language from a designee of the Atmospheric Science Department (Kevin Tyle currently). The student may propose or be assigned a task that demonstrates competency, but the Oral Exam Presentation is generally enough to demonstrate the student's computing abilities. (*MOST COMMON*)

- By demonstrating competence in a laboratory or field-based research technique or skill certified by the student's doctoral committee or a person designated by that committee for this purpose.

Ph.D. Timeline

Entering department without M.S.:

Years 1–2: Follow M.S. timeline above

Year 3: Form committee, take Ph.D. written exam

Year 4: Complete Prospectus and Research Tool Requirement. Attain 60 credits to advance to candidacy.

Year 5+: Complete research; write dissertation; apply for graduation; present thesis seminar/oral defense

Entering department with an M.S.:

Year 1: Take courses as discussed with advisor

Year 2: Must take Ph.D. written exam by end of fall semester

Year 3: Complete Prospectus

Year 4+: Complete research; write dissertation; apply for graduation; present thesis seminar/oral defense

Department Policies

Teaching Assistant Policies

University rules dictate that a student may serve as a teaching assistant (TA) for up to four years if entering the university without a Master's degree; otherwise, the limit is three years. A student who enters the university with TA support will automatically receive TA support for a second academic year, as long as the student remains in good academic standing and has performed their TA duties in a satisfactory manner in consultation with the course instructor and Graduate Program Director. In order to receive TA support beyond two years, the student's academic advisor(s) must petition the Graduate Program Committee in writing prior to the preferred application deadline (currently 5 January). The Graduate Program Committee's decision to grant an additional year of TA support will be based on the student's progress toward degree in relation to the program timeline, the availability of other funding, and performance of TA duties. Current students who wish to be shifted onto TA support during the next academic year are subject to the same requirements as a student requesting TA support beyond two years. If new and continuing TA requests exceed the CAS-allotted number of positions, preference will be given to students advised by DAES faculty.

Prior to the beginning of each semester, the Graduate Program Committee shall assign teaching assistants to specific courses. Priority will be given to courses based on enrollment, course workload, and special needs of the instructor. Teaching faculty will be polled about the expected duties for a TA and the expected number of hours of work per week. Typical TA duties include attending lecture, holding office hours, grading, assisting students with in-class activities, development of class materials, holding review sessions, and managing BrightSpace, but duties will vary based on the needs of the class. Faculty requests for particular skills and teaching assistants will be taken under advisement.

TAs are assigned to individual courses based on the following priority guidelines:

100–200 level courses: Up to one TA per 100 students

300–400 level and required graduate (e.g., ATM 500, 504, 551) courses:

- Courses that include a lab session
- Medical limitations of the instructor
- Courses with significant one-on-one instruction time, or courses where the TA provides substantial day-to-day instructional support beyond the typical TA duties (i.e., office hours, grading, attending class)
- Course enrollment

Research Assistant Policies

Research assistants (RAs) are employees of the Research Foundation (RF) and are paid to assist their advisor(s) with research related to a grant. DAES and ASRC use the following general job description for all RAs, but specific duties will vary based on the requirements of the grant and type of research conducted: This position provides research support to the DAES/ASRC working under the supervision of the Principal Investigator (PI). Students will carry out tasks in conformance with the requirements of the research project grant they are funded by and as directed by the PI. Activities will vary and may be carried out in the laboratory, workstation, library, or the field as described in the grant proposal description. Incumbents exercise initiative, creativity, judgment, collaboration, and discretion in performance of these activities.

Continuation of RA funding from year to year is dependent on the satisfactory performance of grant-related research duties by the student and availability of funds. Advisors and students are strongly encouraged to discuss research expectations and funding each semester, and are required to do so at least once per year as per the Mentorship Guidelines (pages 18–20). If an advisor wishes to stop funding a student due to poor performance, they must meet with the Graduate Program Director, DAES or ASRC research administrator, and, potentially, a RF Human Resources representative to discuss the poor performance of the student and design a 60-day, performance improvement plan. The details of the plan will depend on the specific goals of the grant, but needs to include a clear explanation of how the student's performance has been unsatisfactory, specific tasks the student needs to achieve over the 60-day period to maintain funding, a meeting schedule for the 60-day period, and an explanation of what will happen (i.e., removal of funding and tuition support) if the tasks are not fulfilled. The 60-day period must conclude before the fall or spring semester drop deadline for classes.

Residency

U.S. citizens and permanent residents are required promptly establish New York State residency upon arrival, <http://www.albany.edu/studentaccounts/residency.php>, including getting a New York driver's license, registering to vote, getting a bank account using their New York address, and placing a utility service (e.g., electricity, internet, etc.) in their name as soon as they arrive in Albany (i.e., before the start of the semester). Becoming a resident is important as, after the first year of study, any tuition scholarship will cover only the in-state New York resident rate. For a typical student, who started the program during the fall semester, the deadline for submitting paperwork is 1 October of the student's second academic year, but students are strongly encouraged to submit their application and supporting documents in May or June. Students should retain copies of their official UAlbany and DAES/ASRC offer letters as supporting documents.

Stipends

There are three stipend levels depending on progress toward degree. The first level is for students who enter the program without an M.S. degree; the second level is for students who enter the program with an M.S., and those who earn an M.S. at UAlbany or pass the written exam, whichever comes first; finally, the third level is for students who have passed the Ph.D. prospectus and advanced to candidacy. The stipend amounts for 2024–2025 are \$33,462, \$35,135, and \$36,808.

During the academic year, student stipends, whether a GA, TA, or RA, are paid at a rate of 20 hours per week. When graduate students are registered for classes, they are considered full-time students; thus, the 20 hours per week stipend reflects time dedicated to class work, TA duties, and other required, ancillary academic duties. During the summer, students are employees of the Research Foundation of New York (if funded) and are paid for 30 hours per week. It is expected, however, that students dedicate more than 20–30 hours per week to their thesis research, as they will not be able to complete their degree within the University-mandated time limit if only working 20–30 hours per week. The student should discuss these expectations with their research advisor(s).

If a student wishes to pursue employment outside the University, they should discuss the matter with their advisor(s), to ensure secondary employment does not hinder degree progress, and must attain approval from the Graduate Program Director.

Thesis Defense/Prospectus Times and Format

During the Spring 2025 semester, thesis defenses and prospectuses will take place in person and/or via Zoom on Fridays after 11:30 AM. **Students must arrange their seminar time with the Graduate Program Director as early as possible on a first-come first-served basis.** Available dates may found on the department calendar (<https://www.atmos.albany.edu/daesgsc/>). If a student wishes to present during Climate Group Meeting (11:30 AM–12:30 PM), they must seek approval from the group's faculty advisor, Prof. Aiguo Dai. The DAES Graduate Program Director may grant an exception based on need for an alternative day. Outside of the academic year, thesis defense and prospectus may be scheduled anytime during regular business hours.

Students must send their presentation abstract and a Zoom link to the Graduate Program Director at least one week before their scheduled presentation so that a timely announcement can be sent out. Students should also email the RGSO Webmaster, Luis Hernandez (lohernandez@albany.edu), to have their presentation added to the calendar once their date is approved by Graduate Program Director.

Thesis Due Dates

In order to graduate in a particular academic term, the written thesis must be turned in to The Graduate School by the following dates:

- Fall: 1 December
- Winter: Friday before start of the spring semester
- Spring: 1 May
- Summer: 1 August

A maximum 10-day extension may be granted by The Graduate School via written petition by the thesis chair(s) to Assistant Graduate School Dean Colleen Davis (cdavis@albany.edu).

Obtaining an M.S. Degree

A student who is admitted into the Ph.D. program may obtain an M.S. degree “along the way” by completing the degree requirements outlined on pages 2–3 and taking the following steps:

- Login to MyUAlbany and click on the “Graduate Education” tab
- Under “Application and Graduate Information” click on “Supplemental Program Application”
- Fill out the request form and pay the fee; the program name is Atmospheric Science
- You should receive two emails confirming your purchase and a second that says you can now apply for an M.S. degree. Once you receive the second email, you may log back into MyUAlbany and apply for M.S. degree graduation

Research Credit Descriptions

- ATM 698 (1–9 credits): M.S. research. This course can be taken by a student in the M.S. or Ph.D. program at any time and can be repeated multiple semesters. The appropriate grade is “S”.
- ATM 699 (1–6 credits): Master’s thesis research credits. Any student who wishes to complete a Master’s thesis must complete at least six credits of this course. Should only be used if a student is going to submit a thesis to the Office of Graduate Studies. There is no limit on the total number of credits of this course. The appropriate grade is “I” for incomplete, which will change to “S” once the thesis is submitted and approved.
- ATM 898 (1–9 credits): Ph.D. research. This course can be taken by a student in the PhD program at any time and can be repeated multiple semesters. The appropriate grade is “R”.
- ATM 899 (One credit): One credit class for students who have obtained candidate status (Prospectus approved, 60 credits earned). The appropriate grade is “L”.

Transfer Credit Requests

Ph.D. students who have taken courses as a graduate student at another institution may transfer up to 30 credits. The Graduate Program Director will work with students to identify appropriate transfer credits and to file the necessary paperwork with The Graduate School. Up to six graduate credits from another institution may be applied to the 30 credits required for the Master’s degree.

Mentorship

Seeking out and cultivating productive, supportive advising and mentoring relationships is vitally important to the academic and professional success of graduate students. These relationships also enrich the culture of collaboration and scholarly enterprise within DAES, ASRC, UAlbany, and the greater atmospheric science community. Good mentoring and advising relationships require active participation and engagement from both the student and advisor/mentor. To achieve the goals of productive and equitable advising and mentoring across DAES and ASRC, mentorship

guidelines are included starting on page 18 to provide a starting point for important conversations and a framework for advising to help both students and advisors achieve success.

Graduate Student Activity Reports

All students are required to submit a yearly graduate student activity report at the end of the spring semester. The report should cover the concluding academic year and include: 1) a list of publications, presentations (both oral and poster), and awards; 2) a short description (less than one page) of progress toward degree; 3) a list of outreach, service, and engagement activities within/to the department/university, professional societies, the greater community, etc.; and, 4) a plan for progress towards degree and professional development during the next academic year. This last section must be written in consultation with the student's advisor(s) after meeting to evaluate progress and establish goals for the upcoming year.

These reports should be submitted to the Graduate Program Director and advisor(s). Students who fail to submit these reports are subject to sanctions by the Committee.

Office Space

Students who are registered for classes and/or being paid as a teaching, research, or graduate assistant will be provided desk space. Desk space will be allocated to optimize office diversity by the Graduate Program Director prior to the beginning of the fall semester. Office diversity is defined as a mixture of research concentrations, graduate student year, nationality, sex, and gender. Requests to move within an office or between offices may be sent year-round to the Graduate Program Director, and solicited by the Director at the end of the academic year. Requests will be considered based on urgency, as determined by the Graduate Program Committee.

Appeals

A student may request a waiver from any of the DAES program policies by petitioning the Graduate Program Committee in writing. An exemption will be granted if a majority of committee members agree. If the Graduate Program Committee does not grant the request, the student may appeal to the DAES voting faculty, with a two-thirds vote required for the exemption to be granted.

Conflict Resolution Guidelines

Issues between students and advisor(s) or between students should be brought to the attention of the Graduate Program Director, who is responsible for making a good faith effort to develop a resolution. If the issue persists or the resolution is not deemed satisfactory, all parties may speak with the Department Chair and then the CAS Dean's office.

Diversity and Inclusion

In order to foster an inclusive and equitable environment in DAES, the department has established a committee on Diversity and Inclusion (the IDC). Students may speak to any IDC member confidentially about any concern or issue related to the DAES workspace climate and/or their interactions with faculty, staff, or students. We encourage any behavior or instance that does not promote a respectful climate in DAES be brought to the attention of the IDC chair (Dr. Brian Tang) or any committee member. IDC members meet regularly with the UAlbany Office

of Diversity and Inclusion and have been instructed on campus resources related to Title IX, counseling services, the Safe Space Program, and intercultural engagement, among others.

ETEC Behavior

ETEC is a public space with numerous outside groups, government officials, and prospective students in the building on a regular basis. DAES students are expected to be respectful of ETEC visitors and to be mindful of discussing topics or using language that violate the University's [Code of Student Conduct](#). In addition, ETEC has numerous, unique community spaces, including the Collaboratorium, where everyone should feel welcome to study, conduct office hours, perform group work, eat lunch, etc.. In each of these spaces, please practice self-awareness, respect personal privacy, and be aware of the volume of conversations.

If repeated problematic behavior is reported, disciplinary actions will be taken, which may include involving the student's advisor or referral to the Office of Community Standards for a violation of the University's [Code of Student Conduct](#).

Social Networking Statement

Students who use social networking sites and other forms of electronic communication should be mindful of how their communication may be perceived by fellow students, faculty, and colleagues. As such, students should make every effort to minimize visual or printed material that may be deemed otherwise inappropriate in a professional environment. To this end, students are encouraged to set all security settings to "private" and should avoid posting information/photos and using any language that could jeopardize their professional image. Statements on social media sites are easily taken out of context due to their short nature. Furthermore, students should consider limiting the amount of personal information posted on these sites.

Important Notes

- Students should establish residency as soon as possible. See the Residency section of this guide.
- If the student and advisor choose to proceed through the Ph.D. program without writing a M.S. thesis, they SHOULD NOT register for ATM 699.

Planned Course Offerings (subject to change):

Spring 2025:

- ATM 509: Atmospheric Precipitation Processes
- ATM 530: Renewable Energy Issues
- ATM 580: Scientific Communication
- ATM 612: Atmospheric Convection
- ATM 623: Climate Modeling
- ATM 629: Boundary Layer Processes of Urban Environments

Fall 2025:

- ATM 500: Atmospheric Dynamics I
- ATM 504: Introduction to Atmospheric Physics I
- ATM 515: Aerosol Physics

- ATM 527: Observations and Theory of Tropical Cyclones
- ATM 533: Advanced Geophysical Data Analysis and Visualization
- ATM 540: Applications of Subseasonal to Seasonal Dynamics
- ATM 551: Fundamentals of Earth's Climate
- ATM 563: Applications of Numerical Weather Prediction
- ATM 622: General Circulation

Spring 2026 (tentative):

- ATM 511: Synoptic–Dynamic Meteorology
- ATM 520: Remote Sensing in Atmospheric Sciences
- ATM 522: Climate Variability and Predictability
- ATM 523: Large-scale Dynamics of the Tropics
- ATM 531: Principles of Sustainable Energy
- ATM 543: Weather, Climate Change, and Societal Impacts
- *TBD ASRC-taught class*

Useful Links

DAES Graduate Program:

<https://www.albany.edu/daes/programs>

Course Descriptions:

http://www.albany.edu/graduatebulletin/a_atm.htm

Master’s Thesis Subject Approval Form:

https://livealbany.sharepoint.com/:w:/s/web_gradschool/EOqW5BCIYfJHoiyvCROLOXUBt8myfvGRgVe0OXxp9mKaDw?e=5c0lrC

Master’s and PhD Thesis Guidelines: <https://www.albany.edu/graduate/resources-current-students/dissertation-thesis-information>

Residency Rules:

<https://www.albany.edu/cost-aid/residency-requirements>

Research Tool Requirements:

http://www.albany.edu/graduatebulletin/requirements_doctoral_degree.htm#doctoral_tool

Graduate Program Committee:

Kristen Corbosiero, Director

Aubrey Hillman

Brian Rose

Paul Roundy (*Applied Master’s Director*)

Kara Sulia (*ASRC Representative*)

Oliver Timm (*Graduate Recruitment Director*)

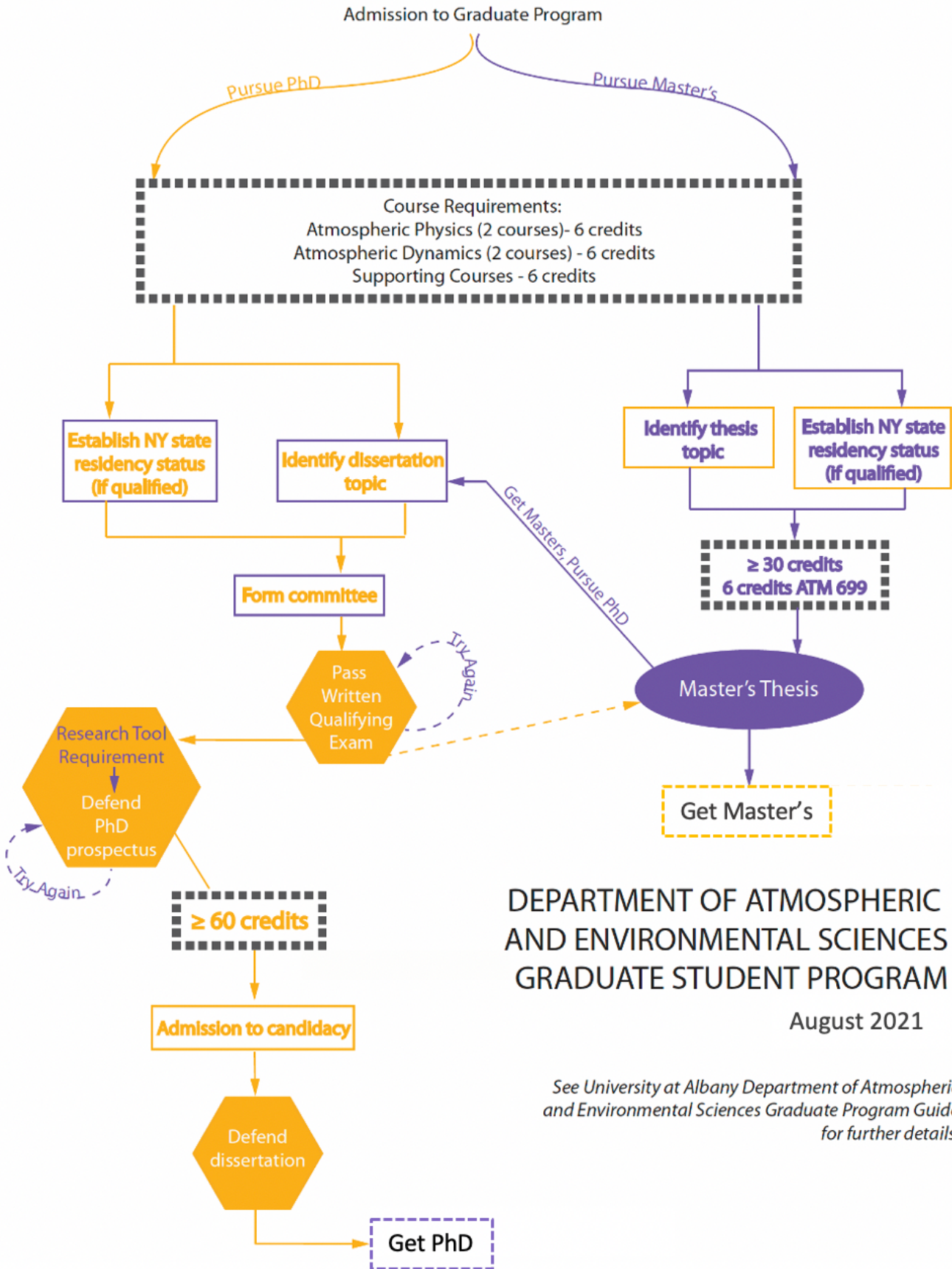
Graduate student representatives to the Program Committee:

Sumar Hart (Pre-written exam)

Elena Fernandez (Post-written exam)

Liam Sheji (ASRC)

Anna Glodzik (First year)



DEPARTMENT OF ATMOSPHERIC
AND ENVIRONMENTAL SCIENCES
GRADUATE STUDENT PROGRAM

August 2021

See University at Albany Department of Atmospheric
and Environmental Sciences Graduate Program Guide
for further details.

DAES/ASRC Graduate Student Mentorship Guidelines

Seeking out and cultivating productive, supportive advising and mentoring relationships is vitally important to the academic and professional success of graduate students. These relationships also enrich the culture of collaboration and scholarly enterprise within DAES, ASRC, UAlbany, and the greater atmospheric science community. Good mentoring and advising relationships require active participation and engagement from both the student and advisor/mentor. The goal of these guidelines is to provide a starting point for important conversations and a framework for advising to help both students and advisors achieve success.

As faculty at an R1 research and teaching university, DAES and ASRC research advisors are responsible for helping their students to: 1) acquire a body of discipline knowledge and skills; 2) develop techniques for networking and collaborating; 3) gain perspective on how their discipline operates academically, socially, and politically; 4) deal more confidently with challenging intellectual work; and, 5) prepare for their future career and present the range of options available.

Graduate students being mentored by DAES and/or ASRC faculty members are responsible for: 1) developing and demonstrating their ability to be independent scholars and researchers; 2) analyzing what they need from their advisor(s) and explicitly asking for assistance; 3) developing a work plan that includes both short-term and long-term objectives, as well as a series of deadlines; 4) taking advantage of formal and informal opportunities to improve their understanding of research responsibility and professional ethics; and, 5) being realistic about what any single mentor can do for them.

To assist advisors and students in achieving these goals, the following guidelines and best practices have been developed to assist advisors and students in setting clear expectations, having open lines of communication, formulating academic and professional goals, and fostering healthy working relationships. A list of resources available to assist in achieving the goals above is also appended.

Clear expectations and communication

Developing clearly defined expectations and lines of communication are hallmarks of good relationships, and can alleviate problems from developing between advisors and advisees. New graduate students should promptly meet with their advisor(s) upon their arrival to develop an agreed upon set of expectations in the following areas, and reassess these expectations at least annually as the student advances through the program:

1) *Time spent on research:* How much time per week does the advisor expect the student to work on research? How much time does the advisor expect the student to work in the office versus other locations (at home, coffee shop, library, etc.)?

2) *Vacation time:* The advisor and advisee should mutually decide how much time a student may take for vacation between semesters. The advisor and advisee should also communicate with each other as to when they will be out of the office for vacation, conference travel, family events, illness, etc..

3) *Individual research meetings:* What meeting style is preferred by both parties, e.g., weekly, bi-weekly, as needed? The student and advisor should agree on the formality of the meetings; i.e., will an agenda be created, will a summary be prepared?

4) *Technical skills:* What programming language(s), software, and other tools does the student know? What is the preferred language used by the advisor's group? The advisor(s) may ask the student to perform a self-evaluation of their technical strengths and weaknesses, from which they can work together to devise a targeted plan of action to ensure that the student seeks out any necessary supplemental training to perform their research activities.

5) *Lab and field work:* Is laboratory and/or field work expected to be a component of the student's research? How many hours per week does the advisor typically expect the student to work in the lab? Does the advisor have funding available for the student to participate in field work? What are the expectations (personal and professional) of a student who participates in field work? What is the expected timeline to complete the field and/or lab work?

6) *Mode of communication:* Is email the best form of communication or does the research group use Slack, Microsoft Teams, or another platform?

7) *Group meetings:* Does the advisor have regular (e.g., weekly, biweekly) group meetings with their research group?

8) *Department research meetings, map discussions, the DAES/ASRC seminar series, and student presentations:* Does the advisor's group participate in one of the department's research meetings, e.g., Climate Group.? Is attendance expected at the department's map discussions?

The Department expects all students to attend the DAES/ASRC Colloquium and the Master's presentations, prospectuses, and defenses of their peers. Advisors should note this expectation when first meeting with their students, and reiterate, if attendance becomes an issue.

9) *Classes:* Does the advisor prefer the student draft their coursework plan, or will the advisor recommend a plan to the student? Does the student wish to take more classes than required by the program and/or classes outside their main research area? Is the advisor supportive of this or would they prefer the student focus on research?

10) *Unfunded research:* Does the student wish to pursue unfunded research projects (i.e., research separate from their thesis research) either stemming from class projects or side research projects with another mentor/advisor? Is the advisor supportive of the student's participation in these pursuits?

11) *Student governance, outreach, and service:* Does the student wish to participate in department and/or university governance, outreach, and/or service in the broader atmospheric science community (e.g., an AMS STAC student member, organizing the AMS Student Conference, etc.)? Is the advisor supportive of the student's participation in these activities?

12) *Workshop/conference travel:* Does the advisor regularly send their students to professional workshops and conferences? Does the advisor have funding to support student travel, registration, etc. for these meetings?

13) *Publications:* What are the advisor's expectations in regard to publishing the student's research? What is the traditional order of authors in the chosen field of study? What level of contribution/involvement is expected to be included as a co-author? Does the advisor involve their students in the preparation of their own manuscripts (e.g., collecting data, preparing figures, proofreading, and editing, etc.)?

Funding

Year to year funding can be one of the largest sources of uncertainty and stress for both graduate students and advisors. To reduce this stress, it is important that advisors communicate openly with their students about the funding landscape from year to year.

To this end, students and faculty members should discuss the following at the beginning of each academic year:

- 1) How is the student being funded during the current academic year and the following summer?
- 2) For how long is the current funding source guaranteed/in place?
- 3) How will the student be funded during the following academic year?
- 4) Will the advisor be writing a grant to support the student? Will the student have the opportunity to participate in preparing the grant?
- 5) Is the student interested in serving as a teaching assistant for professional development/to explore whether they wish to pursue a career involving teaching?
- 6) Even if funding is provided, as an RA, TA, or GA, does the student wish to pursue independent funding?

Although it is sometimes difficult for faculty to provide concrete answers to these questions a year in advance, it is imperative that students have this information so that they may plan accordingly, e.g., apply for fellowships, change advisors, and/or apply to other graduate programs.

Student activity reports and professional development

At the end of each academic year, students are required to submit a Graduate Student Activity Report. The report should cover the concluding academic year and include: 1) a list of publications, presentations (both oral and poster), and awards; 2) a short description (less than one page) of progress toward degree; 3) a list of outreach, service, and engagement activities within/to the department/university, professional societies, the greater community, etc.; 4) new areas of research, skills, and technical expertise acquired over the past year; and, 5) a plan for progress towards degree and professional development during the next academic year.

During a student's first semester in the department, they should start discussing their professional and career goals with their advisor(s) and mentor(s). These goals may be unclear as the student starts their graduate school career and will, almost certainly, evolve as the student gains experience in the program and field. The goal of these early, and continuing, conversations between a student and their advisor(s) is for both sides to learn about, and from, each other to help them both achieve success. Questions to help facilitate these conversations may include:

Student to advisor(s):

- 1) Describe the path that led you to become a professor.
- 2) Did you consider other career paths? What were they and why did you decide on academia?
- 3) What are the available career paths for someone earning the degree I am pursuing? Where can I find more information about these paths? Do you have friends/ colleagues/contacts working in these fields that I could speak to?

4) What knowledge and skills are necessary to succeed in my identified path?

Advisor(s) to students:

1) Why did you decide to go to graduate school?

2) What most interests you about the subject you're studying/researching?

3) What are your short-term academic, career, and personal goals?

4) Have you thought about your long-term goals?

The student should write down their answers to these questions, reassess/update them regularly, and include a paragraph about their goals and progress in their yearly activity report. Students are encouraged to create and update their personal individual development plan (IDP; see links at the end for additional information) during their graduate years.

Conflict resolution

If a conflict arises between a student and their advisor, which either party feels they are unable to resolve through open communication, they should reach out to The Graduate Program Director and/or the Inclusion and Diversity Committee (IDC) Chair (depending on the nature of the issue) to discuss the matter confidentially. The Graduate Program Director and/or IDC Chair will provide resources, act as a mediator, and/or consult with the DAES Chair, ASRC Director, or appropriate University office as to how best resolve the issue.

In addition to departmental resources, TAs may contact the Graduate Student Employees Union to discuss any issues with their advisor(s) or the faculty member for which they are assisting in teaching.

Online resources

University of California Santa Cruz Mentoring Packet:

<https://www.math.ucsc.edu/graduate/grad-forms/graduate-student-mentoring-packet.pdf>

University of Michigan Rackham Graduate School Guide: <https://rackham.umich.edu/wp-content/uploads/2018/11/mentoring.pdf>

Vanderbilt University Center for Teaching Guide to Mentorship for Faculty:

<https://cft.vanderbilt.edu/guides-sub-pages/mentoring-graduate-students/>

University of Michigan mentoring template: <https://www.rackham.umich.edu/downloads/more-mentoring-plan-example-1.pdf>

AAAS STEM field IDP tool: <http://myidp.sciencecareers.org/>