GRADUATE HANDBOOK

ATMOSPHERIC SCIENCES PROGRAM

THE OHIO STATE UNIVERSITY

2012 - 2013

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Atmospheric Sciences Program

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PREFACE

This handbook is intended as a guide for graduate students as they progress academically through the Atmospheric Sciences Program (ASP) at The Ohio State University (OSU). The ASP has been a separate graduate degree granting program within the Geography Department since 1986, after a long history of being housed in OSU Electrical Engineering since 1971. The ASP Director is Professor Jay S. Hobgood and the Chairperson of the Geography Department is Professor Daniel Sui. The academic structural core of the Geography Department, its chair, its Personnel Committee and its Graduate Studies Committee play key roles in the progress and academic success of both the ASP faculty (listed in Appendix G) and its graduate students. As such, ASP policies and procedures are closely interwoven with those of Geography. Indeed the bulk of this graduate manual widely copies the Geography Department *Graduate Handbook* that was thoroughly revised and updated by Professor Kendra McSweeney and Task Force (see below) during the 2011-2012 academic year. **This text has been modified from the Geography *Handbook* to directly apply to ASP students and include the policies of the ASP established by faculty of the Program.**

This Handbook offers links to a variety of relevant resources and avoids duplicating material that is available in the Graduate School's Handbook, http://www.gradsch.osu.edu/graduate-school-handbookl.html, or on the Geography Department's website, http://www.geography.osu.edu/. In the case of a conflict between the *ASP Graduate Handbook* and the Graduate School *Handbook*, the policies of the latter should be followed. In those instances where academic units are empowered to promulgate rules of a more restrictive nature than the Graduate School regulation the *ASP Graduate Handbook* serves as the source of such extended rules.

Policies instituted by the Geography Department in 2011-2012 that are currently being adopted in the ASP include the following:

- Submission of an instructor-approved proposal is now required for Independent Studies or Dissertation Research courses;
- Current master's students interested in our PhD program must now formally apply to it through an internal application process;
- Dates by which students determine their advisors and (later) their committee members are now 'hard' deadlines;
- "Good progress through the program"—a condition of reappointment—is now better defined;
- Clear procedures are laid out to ensure fair and thorough evaluation of, and support for, student progress; and
- Exam procedures are described in detail for the first time.

This ASP Graduate Handbook will be modified annually as policies and procedures in the Program and the Department continue to evolve. The Handbook serves as a student's first reference to the policies of the ASP. If however, one cannot find answers to their questions please contact me or Colin Kelsey, the Graduate Program Coordinator.

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Authorship of the Geography *Graduate Handbook*:

GSC Handbook Task Force 2011-12: Kendra McSweeney (Geography Graduate Studies Chair 2011-2012), Juliana Hardymon (Departmental Fiscal Human Resources Officer), Associate Professor Ola Ahlqvist, Emily Scarborough (GGO representative), Colin Kelsey (Graduate Program Coordinator). With thanks to UCLA Geography for their model handbook.

Modifications for the *ASP Graduate Handbook* by Professor Jeffery C. Rogers, Autumn 2012.

1 Aims and Role of the Graduate Program

1.1 Overview

The Atmospheric Sciences Program (ASP) is designed to provide students with a basic foundation in the physical principles, theory, methodological skills, and applications central to the disciplines of meteorology and climatology. We seek to produce scholars and scientists able to perform academic research work of the highest quality. Graduate students are central to the Program's scholarly and scientific community; their research and teaching contributions are central to our mission.

Overall, these goals are reflected in the graduate program's broad programmatic objectives:

- To bring graduate students rapidly and fully into the collegial, scholarly, scientific, and teaching life of the Geography Department, the ASP, and the University;
- To provide a common foundation for graduate research in atmospheric sciences;
- To provide a variety of courses to meet student research and training needs, and to support student efforts to find relevant courses outside the department;
- To offer opportunities for students to become familiar with current research within the atmospheric sciences;
- To encourage students to engage in academic research presentations and critique; and
- To support as far as possible the financial needs of graduate students through a variety of teaching and research assistantships, fellowships, and other mechanisms.

The ASP is designed to develop outstanding thinkers and to lay the foundation for rewarding careers. OSU Geography/Atmospheric Sciences has a long history of preparing students for diverse jobs in academia/education, government, the private sector, and non-profits. Master's graduates in particular have found that their intellectual and technical training in our department leads to fulfilling careers in multiple fields.

At the PhD level, we assume that the majority of our students will seek positions in academic or government research. We also encourage students to take advantage of the wealth of university resources aimed at helping students explore their career options (for example, the Graduate School's 'Versatile PhD' at http://www.gradsch.osu.edu/the-versatile-ph.dl.htm).

1.2 Graduate Studies Committee (GSC)

The Department of Geography has two graduate programs: one for Geography and one for Atmospheric Sciences. Each program has its own Graduate Studies Committee and Chairperson, evaluates its applicants separately, and has distinct curricular expectations. The procedures and norms outlined in this ASP *Handbook* have been modified from the Geography *Handbook* so as to apply specifically to students of the ASP.

The ASP Graduate Studies Committee (GSC) is dedicated to advancing the aims of the Graduate Program for all graduate students. The committee is comprised of a chair and two other ASP faculty members.

The ASP GSC serves several specific roles:

- To publish and regularly update this handbook;
- To recruit students to the program; and
- To oversee the evaluation of all applications to the graduate program. This includes nominating competitive students for university fellowships.

The Geography GSC includes the ASP GSC as a sitting member and its specific roles are:

- Advising the Department Chair on how available teaching assistantships can be apportioned among incoming Geography and ASP students;
- To coordinate and oversee the orientation of new students to the department, including guidance for students who are likely to be teaching assistants during their graduate career;
- To coordinate the process for supporting and evaluating student progress;
- To coordinate necessary revisions to the graduate curriculum and to coordinate with the various bodies on campus tasked with overseeing curricular issues; and
- To deal with petitions and other special requests made by graduate students.

1.3 Graduate Program Coordinator (GPC)

The Graduate Program Coordinator is the primary administrative liaison between graduate students and the department. In this capacity, the GPC is tasked with updating students regularly regarding administrative deadlines, alerting students to upcoming events, and making announcements on behalf of faculty regarding graduate student progress. A large part of the GPC's job is to handle the day-to-day flow of graduate applications and inquiries and to compile and make that information available to the GSC and other faculty.

1.4 Geography Graduate Organization (GGO)

The GGO is the university-recognized organization for graduate students in Geography and Atmospheric Sciences that serves the interests of the graduate student body; the organization strives to improve the experience of all graduate students. All graduate students in geography and atmospheric sciences are by default members of the GGO.

The organization serves a number of important roles within the department and wider university community. Representatives from the GGO are elected each year to serve on all departmental committees to ensure that graduate student interests are taken into consideration in departmental decision making. The GGO also elects a representative(s) each year to serve on the Council of Graduate Students (CGS). The organization provides a forum for graduate students to voice concerns to the rest of the graduate student body and to discuss methods for addressing such concerns within the GGO leadership.

The GGO is also active in assisting with department functions, hosting events both for the department and wider university community, and organizing social events. General meetings occur approximately two times per quarter, and additional committee meetings are held as necessary. Participation and meeting attendance is encouraged for all students in the geography department, and many opportunities are made available for all graduate students to become

involved with specific tasks and activities throughout the academic year.

1.5 Department Chair

The Chair of the Department of Geography plays a crucial role in the graduate program, particularly in terms of setting the priorities for the GSC. The Chair reviews all GSC recommendations regarding all aspects of graduate program policy and is responsible for final decisions. The Department Chair is also the ultimate department-level arbiter of any disputes or problems between and among faculty and graduate students.

2. Departmental and ASP Culture

2.1 General Policies

The department strives to create a vibrant intellectual environment for all that is conducive to the free exchange of ideas. Constructive and civil critique of others' ideas, teaching, and written work are an important part of healthy academic exchange. The everyday 'hallway' relationship between graduate students and faculty should be defined by professional collegiality.

Following university policy, the department prohibits discrimination against individuals on the basis of their age, ancestry, color, disability, gender identity or expression, genetic information, military status, national origin, race, religion, sex, sexual orientation, or veteran status (see http://hr.osu.edu/policv/policyllO.pdf).

Sexual harassment is taken seriously in the Department as it is elsewhere on campus. For the University's policy on sexual harassment, please see http://hr.osu.edu/policv/policyll5.PDF.

2.2 Advising Relationships

2.2.1 You and Your Advisor

The student-advisor relationship is at the heart of the graduate enterprise. Your advisor is your intellectual guide, advocate, and professional model. Success in the graduate program therefore rests in large part on achieving a productive mentoring relationship with your advisor.

Your advisor must be a regular faculty member in the department. Typically, students identify potential advisors prior to applying to the program (application procedures demand the identification of a provisional 'mentor'). Once you are in the program, however, it is possible that you identify another faculty member who may be a better fit for you. Your advisor, then, does **not** have to be the same person as the provisional mentor you identify in your application.

You must select an advisor by the end of Week 2 of your second semester in the program; failure to do so will delay your progress and jeopardize your funding. (During the brief period prior to choosing your advisor, the mentor acts as your interim advisor. Should that not be possible, the GSC Chair acts as the default advisor.) Once you and your advisor have agreed to work together, **please inform** the Grad Program Coordinator of this in writing.

You are free to change advisors at any time. Should you choose to do so, you must select a new advisor within one month of formally alerting your former advisor of the change. The Graduate Program Coordinator must be notified **immediately** in writing of any changes in advisor status.

One option is co-advising. Sometimes, a student finds two faculty who, together, cover the spectrum of support and guidance they are looking for. Providing that the faculty members are amenable to this relationship, it can work out well and should not prejudice the co-advised student in any way.

Note: The Graduate Program Coordinator keeps track of advisor and committee assignments, and keeps students updated regarding the submission of that information. All announcements regarding student achievements (completion of candidacy exam, receipt of award or scholarship, etc.) should also be made through the GPC.

2.2.2 Advising Practice

You should meet with your advisor at the start of every academic year to review your course selections for the year and to fill out the corresponding **Degree Advising Sheet** (see Appendices B and C). ASP graduate courses are listed in Appendix A.

You are required to meet with your advisor every Spring to review the achievements of the previous year and, importantly, to establish goals and expectations for the coming year. The content of this conversation must be summarized in the **Program of Study** form (see Appendices D and E) which forms part of the annual assessment package, or 'Graduate Portfolio ' (see Section 2.4.2).

Besides these annual meetings, you and your advisor are expected to meet frequently. It is recommended that you keep your advisor informed of various elements of your professional life so they can be an effective advocate for you.

2.2.3 Professionalism

For details of professional standards between advisors and students, please see the Graduate School's page on Professional Standards: http://www.gradsch.ohio-state.edU/5.9-professional-standards.html.

Any breach of professionalism by either party is unacceptable and must be addressed immediately, particularly those relating to sexual harassment or discrimination (see Section 2.1). Graduate students wondering how to proceed should bring the problem to the immediate attention of the GSC Chair or to the Department Chair. If neither seems appropriate, contact the Office of the Divisional Dean for Social and Behavioral Sciences, or the Graduate School.

2.2.4 Authorship and Intellectual Independence

The goal of the advising relationship is to foster intellectual curiosity and the free and open exchange of ideas. Especially when a student's research endeavors are closely intertwined with those of their advisor, however, it can be difficult to trace 'ownership' of an idea back to one party. Similarly, it can be difficult to disentangle the contributions of each to a joint research

effort, such as a manuscript intended for publication.

Issues of intellectual contribution and authorship should be discussed candidly with your advisor. Faculty hold different views on the relative roles of faculty and students in the authorship of work emanating from advised research. To avoid misunderstandings, it is **strongly recommended** that students ask their advisor to clearly lay out their authorship/attribution policies as early as possible in the mentoring relationship. If the policies appear unfair, students should consider working with a different advisor. Should this be impractical or for other reasons, students should bring their concerns to the GSC Chair and/or the Chair of the Department.

Similarly, you are encouraged to speak frankly with *any* research collaborators about attribution protocols early in the collaborative process. To help you think through these issues, be sure to read the University's Research Data Policy (http://orc.osu.edu/files/2011/01/ResearcriDataPolicv.pclf), which has a procedure on the handling of authorship disputes on page 4 and 5.

2.2.5 You and Your Committee

In addition to your advisor, other faculty members will form the committee(s) that helps to guide you through the program. Your committee members should have a demonstrated interest and/or expertise in some aspect of your research program. Ideally, you should choose faculty members with whom you have already taken a class, although this can be difficult given the time constraints on naming your committee. Make an effort to populate your committee with faculty who—based on your conversations with them—appear to be best able to help you with *your* project.

All students must form a committee by the **end of March of their first year** in the program. All the graduate committees should be reviewed and approved by the GSC Chair and Department Chair. The Graduate Program Coordinator should be notified of the committee composition, as they should any changes to the composition of the committee. Early formation of a committee—albeit one whose composition may change as students get to know different faculty better—is an important way for students to ensure that they are in early and regular conversation with multiple faculty about their research interests and professional goals.

2.2.6 Committee Composition

At the **master's level,** the committee is comprised of two or three regular graduate faculty, including the advisor or in the case of co-advisors, the advisors. Two committee members must be from within the ASP faculty (two is a majority for a 3 person committee). One member may be OSU regular faculty from outside the department. One may be from outside the University, upon the recommendation of the GSC, which must petition the Graduate School to include this 'external' member, outlining their special qualifications and expected contributions (see http://www.gradsch.osu.edu/15.5-committee-service-and-advising-bv-non-members-of-the-graduate-faculty.html).

At the **PhD level,** students are required to have a minimum of **four** committee members on their candidacy exam committee and a minimum of **three** on their dissertation committees.

These committee members must be graduate faculty members at OSU (this is a Graduate School rule: see http://www.gradsch.ohio-state.edU/7.9-dissertation.html).

For candidacy exam committees:

- Four, or five, OSU graduate faculty members may sit on the candidacy exam committee, and a minimum of three must be ASP graduate faculty members. These graduate faculty members are either Category M or Category P. Category P faculty members can advise PhD and MA/MS students and serve on all student committees within the ASP. M status faculty members can serve on the committee for PhD candidacy and final exams with the approval of the Graduate Studies Chair. Category M faculty members can otherwise advise MA/MS students and serve on MA/MS exam committees. If the student wants non-Graduate faculty to serve on the committee, a petition from the Graduate Studies Chair can be made to the Graduate School to gain approval. However, it is not guaranteed that the Graduate School will approve the petition.
- The student's advisor is the chair of the candidacy exam. In the case of shared advising responsibility, the two advisors must decide who will chair the exam.
- An additional committee member may be added to the candidacy exam committee. Check Graduate School guidelines for criteria regarding selection of additional candidacy exam committee members.

For dissertation committees:

- The dissertation committee advisor must be a Category P graduate faculty member in the student's graduate program and is the chair of the committee.
- In addition to the three 'core' members of the dissertation committee (all Ohio State, current graduate faculty members), up to two additional graduate faculty members also may serve on the dissertation committee (forming a maximum committee size of **five).**
- Non-graduate faculty members may be appointed to the dissertation committee by approval of the graduate studies committee in the student's home program and by petition to the Graduate School.
- The majority of committee members (two in the case of a three- or four-person committee and three in the case of five-person committee) must be faculty in the Department of Geography; remaining members may be from outside the Department ("external" to the department)
- One member may be from outside the University, upon the recommendation of the GSC, which must petition the Graduate School to include this 'external' member, outlining their special qualifications and expected contributions (see http://www.gradsch.osu.edu/15.5-committee-service-and-advising-bv-non-members-of-the-graduate-faculty.html).

As the complexity of a committee grows, so too does the challenge of convening meetings and exams with that committee, as all members must be "present" (at least virtually) for an exam to proceed, as required by the Graduate School. We therefore encourage students to balance their desire for a 'dream committee' against the logistical challenges of meeting regularly and substantively with that committee.

Often, the composition of a student's pre-candidacy committee (sometimes referred to as the "Candidacy Exam Committee") differs slightly from that of the student's so-called "Dissertation Committee." This reflects the different pedagogic goals of each step, and can affect the faculty expertise drawn on at each phase. For example, at the pre-candidacy stage, it is

common for students to draw exclusively on faculty within the Department. As they advance in their research post-candidacy, they may wish to replace one of those internal committee members with a member from outside the department or the University who is a recognized specialist in some aspect of the student's dissertation research. Communicate all changes in committee membership to the Graduate Program Coordinator in writing **as soon as** they are made.

2.2.7 Annual Committee Meetings

You are strongly encouraged to request a meeting of your committee every year, ideally in Spring, to review your progress over the previous year and to plan your research program and course schedule. These non-evaluative meetings should be considered separately from other committee business (e.g., exams).

There are strong pedagogic benefits associated with committee meetings. Sitting down with all your committee members—even for just an hour—accomplishes several things that separate meetings with individual committee members cannot:

- Ensures that your progress is discussed jointly by the committee in a regular manner
- Avoids redundant and time-consuming separate meetings
- Ensures that all committee members are 'on the same page' regarding your goals and progress
- Clarifies differences of opinion between committee members regarding advice to you. These differences can be highly productive moments of intellectual debate. But they must be openly discussed in a group setting in order to minimize confusion and stress to you. It is the job of your advisor to mediate such differences professionally and in such a way as to maximize their intellectual benefit to you.

While it may not be possible or practical to convene all committee members (due to faculty sabbaticals, for example, or because external committee members are at foreign institutions), it is strongly recommended that every effort be made to do so. Department staff will also assist in setting up Skype connections and other means for distant committee members to be "present" at committee meetings (as they must be at all exams).

2.2.8 Letters of Recommendation

One of your advisors' and committee members' most time-consuming duties is to write letters of recommendation for you. It is likely that they will do so multiple times during your tenure in the Department), and they will continue to do for some years after you have graduated.

Faculty members understand that letter-writing is an important part of their job, as these letters play an extremely important role in your career. Nevertheless, there are times of the year when faculty can be swamped with letter-writing requests. Your responsibility, therefore, is to ensure that you make the process as straightforward and pleasant as possible for your advisor and committee. After all, a faculty member irritated by a letter request is less likely to write a compelling letter. This means observing the following:

- Give your letter-writers as much warning as possible regarding the due date; ask if

they anticipate being away or otherwise unavailable prior to the due date.

- When appropriate, furnish **within the body of your email** (not through a link) the complete details of the job or competition to which you are applying, and the complete name and details of the person or committee to whom the letter be addressed. If you cannot find this information, contact the source to get it. Do not send out your letter request until you have all this information in hand.
- Where appropriate, offer the letter-writer a copy of the statement or proposal that you have written for the application.
- Provide letter-writers with an up-to-date copy of your C.V. to ensure that the details of their letter match your record.

2.3 The Student and the Department

2.3.1 Teaching and Research Positions

One of the rewards and challenges of graduate school is the opportunity to contribute directly to the department's dual mission of teaching and research.

Effective work relationships (whether as a GTA, GRA, or GA; see Section 2.3.1) start with communication—shared objectives, clearly defined expectations, frequent contact, and periodic feedback. At a meeting before the semester begins, instructors/advisors and GRAs/GTAs should discuss the objectives and content of the course/project and agree on responsibilities and division of labor. These understandings should be written down to form a sort of work agreement. As the semester progresses, periodic meetings, e-mail, and feedback keep the lines of communication open. Frequent meetings provide an opportunity for you to develop teaching/research skills and to learn from the instructor/supervisor's experience.

For Teaching Assistants, it is important to recognize that faculty (and student "full-teach" instructors) have different styles and expectations regarding teaching assistantships, and some courses require more work than others. Students can be frustrated by receiving the same pay for different amounts of work. For this reason, every effort will be made by the GSC and Department Chair to consider these differences in making TA assignments.

The Department runs an orientation and workshop at the beginning of every academic year. This is designed to orient future teaching assistants and instructors to the multitude of resources on campus that are designed to assist them in their teaching mission.

The **TA/Instructor Form** (see Appendix F) provides an opportunity to articulate and evaluate the TA/instructor relationship. Completed forms are gathered by the GSC. These forms are critical to ensuring, for example, that exceptional TAs are rewarded, and that any concerns of either party be addressed in a timely fashion. The primary function of this evaluative exercise is to ensure that both parties have opportunities to reflect upon the strengths/weaknesses of the working relationship, and are able to signal those to the GSC/Department Chair to help the department improve the quality of its teaching and mentoring.

Instructor positions. Doctoral students who are post-candidacy are often asked to take on the primary instruction role for introductory and mid-level undergraduate courses. Teaching experience is essential for competing in the academic job market.

With this in mind, the GSC will work closely with the Department Chair and fiscal officer to **make every effort** to ensure that all post-candidacy students have opportunities to teach a full course, and that repeat full-teach assignments are distributed fairly.

To become a successful instructor requires practice and guidance. The department will soon formalize a process whereby student instructors will receive regular, constructive, and timely feedback regarding their teaching.

Many students also find it helpful to take courses on pedagogy while at Ohio State. Following revision of the graduate curriculum after 2012, the Department will review the possibility of offering the course(s) required to allow interested students to pursue a Graduate Interdisciplinary Specialization/Minor in College and University Teaching.

Research positions. Faculty frequently hire research assistants or research associates to assist them with some aspect of their research, from literature reviews to transcription to data analysis. These are jobs that should be approached with the same diligence and professionalism required of any job. As with teaching assistant positions, the best way to ensure a fair and productive research relationship is to lay out expectations **in writing** at the beginning of the appointment. Any breach or abuse of those expectations by either party should be brought to the attention of the GSC Chair or Department Chair immediately.

2.3.2 Other Professional Development

The Department offers multiple opportunities for professional development, including the Colloquium Series and the associated Friday Lunches (http://www.geography.osu.edu/news-and-events/colloquium-series). These are valuable opportunities to keep abreast of developments within and beyond the discipline, and they are important networking opportunities. ASP graduate students are encouraged to participate in these events regularly, especially those involving any climate or environmental related presentations, with the understanding that conflicts may occasionally arise due to teaching and course commitments. The department implements ad-hoc record-keeping on student attendance at these and other departmental events but this will not adversely affect progress toward the graduate degree for students in the Atmospheric Sciences Program.

Within the department, there are also multiple ad-hoc events, such as poster sessions, brown-bag presentations, or events related to Geography Awareness/GIS Week. Graduate student participation and organization are critical to the success of all such events.

It is also expected that graduate students attend events beyond the department. OSU is a huge university, and graduate students should take advantage of the myriad events ongoing at anytime. News about events that are deemed particularly relevant to geographers and atmospheric scientists are typically relayed through the departmental listserv.

2.3.3 Juggling Your Responsibilities

Graduate school requires balancing the demands of course work with TA or GTA responsibilities, in addition to pursuing your independent research. Thus you may be simultaneously a researcher, student, and teacher! This combination usually raises considerable

challenges for time management. Everyone has their own way of structuring their time but the challenge is common to all. Sometimes the process can be stressful and anxiety-inducing, and many students report that their transition to grad school is challenging and occasionally overwhelming. Often these anxieties peak during the dark and cold months of January, February, and March. This is not unusual! If you feel this way, please discuss it with your advisor, who may be able to offer you some concrete suggestions to ease your stress. Your committee members, the GSC Chair, and other faculty can also be helpful. Also be aware of the many resources on campus designed to help students with time management and with the management of stress and anxiety, including at the Office of Student Life (http://studentlife.osu.edu/departments/) and at the Younkin Success Center (http://younkinsuccess.osu.edu/), including their Counseling and Consultation Service (http://ccs.osu.edu), UCAT (http://ucat.osu.edu/) and the Dennis Learning Center (http://dennislearningcenter.osu.edu/).

2.3.4 Social Events

The GGO and Department also organize a variety of social events throughout the year such as a holiday party and coffee hours. All graduate students are strongly encouraged to attend these events, which serve as important opportunities to better know the people with whom we work.

2.4 Review of Student Progress

2.4.1 Annual Review Cycle

The annual graduate student evaluation process should be considered an annual cycle of professional development. It is intended to provide continuous planning and evaluation and to culminate in graduation. The process mimics the performance evaluation process found in most workplaces, including tenure-track positions at universities. The Professionalization Seminar will help to introduce you to this process and to see it as a crucial way to build towards your professional goals.

The annual cycle is generally divided into a planning phase (fall) and an evaluation phase (spring):

Fall-winter (planning, compiling):

- Meet with your advisor to review the courses you will be taking over the subsequent semesters.
- Begin to gather documentation of your academic, research and service activities in preparation for your spring review

Spring (review). The review is required whether or not the student plans to graduate that spring. The review follows up on the general expectations and personal goals from the fall to ensure that you are making good progress toward your degree. At this stage, you should:

- Prepare your Graduate Portfolio (see below)
- Meet with your advisor (if not your entire committee) to prepare the Program of Study form (see Appendix D-E) and to review your portfolio and sketch out plans for the following year.

2.4.2 Graduate Portfolio

Each spring students should assemble a Graduate Portfolio (http://ucat.osu.edu/teaching_portfolio/teaching_port.html) that will summarize their academic and professional accomplishments to date. Help in assembling this portfolio can be sought from the student's advisor or the GSC Chair. The core of the portfolio is a complete and up-to-date curriculum vita (for templates and ideas, see https://career.berkeley.edu/phds/PhDCV.stm). Other materials that would assist with review include: advising reports, degree advising sheets, program of study forms, SEIs or other teaching evaluations, copies of proposals and publications, and any other relevant materials related to research, teaching, and service.

The portfolio should be used as the basis for discussion of the student's progress at the student's spring meeting with their advisor (and ideally, their committee), and will provide the basis for discussion of student progress at the faculty's Annual Review of Student Progress meeting. The portfolio should be broken down into the following sections:

Section 1: Curriculum Vitae and overall student progress including advising report and degree advising sheets

Section 2: Research products
Copies of proposals and publications

Section 3: Teaching
Teaching philosophy statement, course artifacts, evidence of teaching effectiveness

Section 4: Professional development
Professional development efforts, broadly defined

2.4.3 Faculty Review of Student Progress

Students' portfolios will be reviewed by all Geography faculty during a Departmental faculty meeting dedicated to that purpose, held in Spring. As an outcome of that meeting, you will receive a written letter from the Geography GSC Chair containing constructive feedback on your progress, including specific guidelines for areas of improvement as necessary. The review will also assist the GSC in their recommendations to the Department Chair regarding the renewal ("reappointment") of GA assignments and to assess student competitiveness for other departmental funds (e.g., for travel).

This annual faculty review does not involve faculty 'voting' on student progress. Rather, it gives all the faculty who have had meaningful interactions with that student an opportunity to offer their comments on how the student is doing in the program, according to the criteria for 'good progress' outlined below. Students who are not considered to be making good progress will be so informed in the letter from the GSC chair. A plan for performance improvement will be outlined, and the student will have one semester to meet the goals for improvement. Failure to meet those goals may result in termination of departmental funding support.

Spring review is commonly used in programs within and beyond OSU. The feedback offered to the student will therefore balance input and thoughts from all faculty with whom they have interacted. At the same time, this process helps to build a culture in which all faculty are familiar with all students in the program—personally and professionally—and thus more able to support their progress.

2.5 "Good Standing" vs. "Good Progress" in Your Program

According to the Graduate School, a student is in "good standing" if they maintain a GPA above a 3.0 and "make reasonable progress" towards his/her program requirements (http://www.gradsch.ohio-state.edU/5.l-good-standing.htmU. The Department of Geography sets a higher standard that clearly distinguishes "good standing" from "good progress." Students are making "good progress" through the Geography/ASP program when they:

- Make timely progress through the basic 'milestones' of their program, including but not limited to: identifying an advisor, assembling a committee, writing a research proposal and, as appropriate, applying for research funding or other support, submitting drafts of written work to advisor/committee in a timely manner
- Perform GTA, GRA, or instructor responsibilities professionally
- Meet frequently with their advisor and regularly with their committee
- Present and publish their research
- Participate fully in the life of the department (e.g., attend all colloquia—schedule permitting, and contribute to other intellectual and social events)
- Maintain good grades. Within our graduate programs, 'good' means the regular achievement of 'A.' In effect, grades only become an important indicator of student progress when they are consistently below the 'A' standard expected of all graduate students.

In other words, "good progress" recognizes excellent *academic* progress as well as active engagement in other aspects of the department's mission.

2.6 Grievance Procedures

The local procedures for reporting and resolving grievances by ASP graduate students are as follows.

1.) Student must first bring the grievance to the attention of the ASP Graduate Studies Committee Chair in writing. The written grievance should include:
   a. Student name
   b. Department
   c. Position (if any; GRA, GTA)
   d. Faculty Advisor
   e. Statement of Grievance
   f. Relief Requested

2.) The Graduate Studies Committee Chair and a representative of the Graduate Geography Organization review evidence to determine that a valid grievance exists. At this point there are three possible outcomes:
   a. It may be determined that no grievance exists
   b. Grievance may be resolved
   c. Grievance may not be resolved to student's satisfaction

3.) Graduate Studies Committee Chair, GGO representative meet with the Department Chair to review if evidence of a grievance exists and, if so, how it may be resolved.

4.) If the matter is still not resolved and involves graduate examinations or graduate associate appointments, it may be brought up with the graduate school following procedures in the graduate school handbook.

5.) All of the above steps must be documented in writing and included in the student's academic file. The student will be provided a copy of the documentation as well.

The graduate school's grievance procedures can be found here: http://gradsch.osu.edu/appendix-c.html

3. Academics

3.1 General Policies

3.1.1 Presentations and Publications

An essential component of professional life is regular attendance and presentation at conferences, including local, regional, national, and international conferences. Consider presenting twice a year. This might mean, for example, presenting at a departmental or local event and attending a regional *or* national conference within a given year. Attendance of the annual AAG / AGU / AMS meetings are particularly vital for PhD students, both as an opportunity to present your work and as an important way to build your professional network. The department offers financial support for conference attendance, particularly to the AAG and AGU. Should you be interested in financial support to attend another conference, please contact the Department Chair. He will make a determination of support based on your graduate portfolio and other indicators of your progress.

Publishing your work is valuable to all students, regardless of your future career plans. All students should pursue publication; doctoral students are expected to do so. Initial publications are often co-authored with an advisor; PhD students, however, are expected to publish as first or single authors. Master's theses and research papers are common sources of publications, as are research papers written for courses.

Students wishing to publish from their theses or dissertations may consider requesting that the Graduate School delay (by up to 5 years, renewable) the on-line dissemination of the document until the work is published in article or other format. For the 'Petition to Delay Dissemination of Ohio State Dissertations and Theses' go to: http://www.gradsch.osu.edu/electronic-dissemination.html.

It is important to develop a habit of writing for publication. In addition to research papers and theses, other aspects of your graduate experience can serve as writing fodder, including pedagogic innovations or review papers written in seminars. Correspondingly, there are multiple different formats in which to be published. For example, many students 'break into' writing for academic journals with book reviews. They may then submit a research brief/report, a commentary, or a literature review before attempting a full-blown research piece.

3.1.2 Plagiarism and Academic Misconduct

The Ohio State University and the Department of Geography and ASP take any form of academic misconduct very seriously and will enforce all University policies regarding academic misconduct (see below). As a student and a teaching assistant, you are expected to be aware of these policies:

- The Graduate Student Code of Research and Scholarly Conduct (httpV/www.gradsch.ohio-state.edu/i.-graduate-student-code-of-research-and-scholarly-conduct.html) describes the Graduate School's general expectations for ethics and conduct in graduate research and scholarship.
- **Research and Scholarly Misconduct.** As a recipient of federal funding, the university is

obligated to have an administrative process for reviewing, investigating, and reporting allegations of research misconduct. The University Policy and Procedures Concerning Research Misconduct (http://orc.osu.edu/files/2011/01/Misconduct Policy.pdf) is available on the Office of Research website (http://research.osu.edu/).

- **Academic Misconduct.** The university's Committee on Academic Misconduct (http://oaa.osu.edu/coam.html) is responsible for reviewing charges of academic misconduct against students, including graduate students. The Code of Student Conduct (http://studentaffairs.osu.edu/resource csc.asp) defines the expectations of students in the area of academic honesty.

3.1.3 Time to Degree

The ASP is designed so that master's students graduate within two years, and doctoral students within three to five, depending on the type of program and the nature of the research. The Department cannot guarantee funding to PhD students beyond their fourth year; students in this position should be prepared to compete for external funding sources if a fifth year is required. The annual review process will allow students in this situation to be identified early.

Ironically, however, the pursuit of external funding for dissertation research can itself prolong the time to degree. This is because applications take time, and because funding opportunities often come with expectations for additional work. To prevent students from being penalized for such efforts, the annual evaluation of student progress (see Section 2.4.1) will ensure that the Department Chair, fiscal officer, and GSC are familiar with such cases and work to accommodate those students in funding decisions (also see Section 4.1). For example, the department will seek to accommodate all students who successfully compete for external funding during their program and may therefore not need four years of consecutive funding, but rather periods of funding that sum to four years.

It is also understood that personal and professional issues may arise that extend the time a student may require in their program. If you expect your progress to vary significantly from the norm, the onus is on you (in close consultation with your advisor) to plan ahead and/or account for any variations or delays. For example, you may be eligible for family and medical leave (http://www.gradsch.ohio-state.edu/depo/pdf/leave.pdf).

Specific time limits on graduation and other issues regarding timely completion of degree are described further under the specifics of the master's and PhD programs.

3.2 Coursework

3.2.1 Course Selection

The new curricular requirements under the semester system for the ASP have largely remained unchanged. A list of ASP graduate courses and seminars can be found in Appendix A.

Each ASP degree has specific course requirements that are detailed in the corresponding **Degree Advising Sheets** (see Appendix B-C). You should use these sheets to put together your coursework in close consultation with your advisor. For incoming graduate students who have not yet

declared an advisor, the GSC Chair will meet with you to determine your courses for the upcoming semester.

When students expect to be focusing on their own research, they typically enroll in **independent study** or **dissertation research** courses. Many students choose to take independent study credit with faculty other than their advisor in order to learn about a particular technique or body of work. The content and style of these courses are determined between the instructor and the student. Once the goals for the independent study are established, the student is responsible for emailing the Graduate Studies Coordinator an instructor-approved 1-2 paragraph description of the planned work. This should be done **no later** than the second week of the term.

Further information on issues relating to course credit can be found on the Graduate School's website at http://www.gradsch.ohio-state.edU/4.l-course-credit.html.

3.2.2 Courses Outside the Department

As long as a student is meeting the requirements of their program and their advisor approves, students are encouraged to seek relevant courses outside the department and/or College.

3.2.3 Course Load

Any students who enrolled in the OSU Graduate School after Autumn 2008 must maintain continuous enrollment. This includes post-candidacy students. Please refer to the Graduate School's website (http://www.gradsch.ohio-state.edu/continuous-enrollment.html) for more information.

The specific number of credits for which you must register in a given term, however, varies based on whether or not you are funded, what type of funding your receive and whether or not you are post-candidacy; for more information, see http://www.gradsch.ohio-state.edu/section-iv.html.

Students typically enroll in more coursework at the beginning of their studies (year one of a master's program; years one and two of a doctoral program), moving to more independent study credit as they focus increasingly on their own research.

Further information about course loads can be found on the Graduate School's website at http://www.gradsch.ohio-state.edU/3.l-course-load.html.

3.3 Research

The core endeavor within the graduate program is the conduct of research. At the master's level, a minimum requirement is that students demonstrate their capacity to conduct research, including the identification of a research problem, the design and execution of a research approach, and the analysis and write-up of the research. At the doctoral level, the minimum requirement is that students harness their demonstrated capacity for research to a problem that results in the production of new knowledge.

3.3.1 Research Proposal and Public Defenses

Most master's students and all PhD students are required to write a proposal and make a public proposal presentation in the Department. The presentation may be informal, and the format is flexible (e.g., 'brown bag' lunch meeting). The event must nevertheless be announced publicly by the Graduate Program Coordinator, with at least one week's notice to allow for broad attendance. ASP research proposals will also be discussed and evaluated at the PhD Candidacy examination although it is hoped that the ideas/proposals contained within it have been discussed once or twice with faculty advisory committee members in the months before that exam.

At the master's level, a proposal is usually required of students prior to the onset of their M.S. research. At the PhD level, a formal research proposal is required and is typically due to the committee prior to the candidacy exam (see Section 3.5.2). For PhD students, the proposal is due within one month of the candidacy exam, and the proposal presentation should be scheduled within a similar time frame. This timing serves three purposes. First, it provides some indication of the student's overall competence to pursue the independent research required for the doctoral dissertation. Second, it means that committee members can review the proposal in time to get an idea of the sub-fields of the discipline to which the student aspires to contribute and thus on which the candidacy exam might focus. (This said, it is important to recognize that a proposal and candidacy exam serve distinct goals; see Section 3.5.2). Third, it means that once the student is post-candidacy, they are ready to begin to conduct the proposed research.

Proposals demand a particular form of writing that requires practice. There are many different proposal formats but often one follows that of an NSF proposal that includes an estimated time line of when certain research tasks will be completed on the way to your final dissertation submission. Often, your best guides are the proposals of successful students who have preceded you in the program. Our graduates report that proposal-writing is among the most important skills gained in graduate school, and it is a skill portable to multiple career paths.

In addition to writing a research proposal all graduate students are required to give public presentations. These presentations occur prior to or shortly after your Master's Exam, Candidacy Exam and/or your Dissertation Defense. These presentations should be 15-20 minutes in length with an additional 5-10 minutes of questions. The presentation must be announced publicly by the Graduate Program Coordinator so please set-up the presentation at least one week before the exam/defense.

3.3.2 Financial Support for Research

No matter what type of research you intend to do, it is highly recommended that you pursue opportunities to have others help to pay for it. The GSC is currently building a database of research grants and awards won by students in recent years that should help to guide your search for appropriate funding programs. The Graduate School also maintains a database of external funding sources (http://www.gradsch.osu.edu/external-funding-sources.html).

For master's students, various sources offer research grants. Some are offered through the University (so-called "internal" funding); others require applying to regional, national, or international organizations or governments ("external" funding). Amounts vary. Each typically requires tailoring your research proposal to particular funder requirements, and often request a CV, cover letter, and letters of recommendation. Work with your advisor from the beginning of your first year to identify those sources of funding for which you are most likely to be competitive. (Many grant application deadlines fall between October and February, and putting

together a competitive application takes time. You should therefore begin this process as early as possible, and to work closely with your advisor to revise drafts of your application.)

At the PhD level, research funding opportunities grow in size and prestige. These include the DDRI (Doctoral Dissertation Research Improvement) competition of the National Science Foundation, and Fulbright's doctoral fellowships.

3.4 The Master's Program

Our master's degree program is designed to have you demonstrate that you are capable of identifying a research problem, and able to marshal the conceptual and methodological tools to adequately address it.

The Graduate School outlines the rules, regulations and norms for all master's degrees (http://www.gradsch.ohio-state.edu/section-vi.html). What follows relates to specifics of our program, which may in some cases differ from those of the Graduate School (and are so noted).

3.4.1 Timely Completion of Degree

You should graduate by the end of your second year in the master's program. Should obstacles arise that prevent you from doing so, it is possible to extend a master's program up to the end of your fourth complete academic year. If you do not graduate after your fourth year then you will expelled from the program (allowing for formal leaves, such as family and medical leave). This is a departmental rule, not a Graduate School rule.
In order to graduate within two years, the following sequence and timing of key programmatic goals is recommended.

Year 1

Fall: Plan coursework with (interim) advisor

Spring: Identify an advisor (by end of Week 2 of winter semester)

Form committee (by the end of March)

Present proposal

Apply for research grants (as necessary)

Meet in spring with advisor (and ideally committee)

Prepare portfolio

Summer: Research

Year 2

Fall: Research (continued) Analysis

Recommended: Report to committee on summer progress

Apply to PhD programs (if interested)

Spring: Analysis (continued)

Write thesis/paper

Spring meeting with advisor (and ideally committee)

Defend thesis/ Take master's exam

GRADUATE

3.4.2 Geography Master's Format: Thesis or Journal Article Option?

Students must choose between one of two approaches to the master's program. Formally known as Plan 'A' or Plan 'B,' a useful way of thinking about the distinction is that 'Plan A' results in a master's thesis, and 'Plan B' results in a research paper typically designed to be published as a journal article. For geography students, the primary difference between them is that Plan A results in a thesis that is defended during the oral exam; Plan B results in a research paper with a separate master's examination comprised of a written and oral component. The decision to pursue one Plan or the other is typically made by the advisor and student at the beginning of the mentoring relationship.

ASP Master's Format: Thesis and Exam

ASP students always follow Plan A, but they also take a written exam and an oral exam, at which the thesis is defended **and** exam questions discussed.

3.4.3 Master's Examination

Students planning to graduate in a given quarter must file an **Application to Graduate - Master's Degree** form (http://www.gradsch.ohio-state.edu/Depo/PDF/Master%27sGraduate.pdf) with the Graduate School no later than the second Friday of the quarter in which graduation is expected. The signature of the Chair of the Graduate Studies Committee on that form certifies that departmental core course requirements have been met.

Master's exams must follow these guidelines:

- It is the advisor's responsibility to set the date and time of the examination and to inform all members of the student's committee (the examination committee is the same as the advisory committee).
- Under no circumstances will the oral comprehensive examination be given earlier than one week following the acceptance of the document (exam or thesis) by the advisory committee.
- Prior to the exam, the GSC Chair provides the student's advisor with standardized forms for communicating the results of the exam.
- Prior to the exam, the student's advisor receives from the Graduate School a blank Master's Examination Report.
- The student should not offer any food or drink to the committee during the exam.
- At the conclusion of the exam, four actions are taken by the student's committee:
    - The committee decides whether or not the candidate passes the examination (the decision must be unanimous).
    - The committee decides whether the Master's thesis is satisfactory.
    - The committee makes a written recommendation to the Graduate Studies

Committee regarding student admissibility to the PhD program. This recommendation will be entered into the student's file. For students already accepted into the PhD program (through the application process which typically precedes the master's exams), the recommendation will inform decisions about student funding and assignments. This recommendation must be based on a unanimous decision regarding the student's aptitude for doctoral work.

- Appropriate forms are filled out; the results of the committee's decisions are discussed with the student.

A student is deemed to have successfully passed the exam if they are able to answer the questions posed to them thoughtfully and thoroughly. Their oral responses should make specific reference to concepts gleaned from coursework and independent research. It is particularly welcome if students can articulate the bounds of their knowledge with reference both to what they know and what they do not know.

For graduation to occur in the same term as the exam, the results of the exam must be satisfactory, and they must be certified to the Dean of the Graduate School no later than two weeks before commencement.

ASP students (all **Plan A)** typically take a four-hour closed-book written exam, answering four questions posed by their committee members. This is followed one-to-two weeks later by the two-hour oral exam, as described above, focusing on the student's answers and on their Plan A thesis. Nonetheless, variations from this typical exam format do occur, and ultimately are determined by discussions between the student and their advisor.

3.4.4 Summary of Master's Degree Requirements

Section VI of the Graduate School Handbook gives a summary of requirements for earning a Master's Degree: see: http://www.gradsch.ohio-state.edu/6.6-summary-of-masters-degree-graduation-requirements.html.

3.4.5 Internal Application to the PhD program

Master's students interested in pursuing a PhD in the department must formally apply to the PhD program. This policy applies retroactively to all master's students admitted prior to autumn 2011. The application process is internal in that it does not go through the Graduate School. This means that no new GREs need to be taken and no new application fees paid.

The policy applies to all current master's students, including those whose letters of acceptance into the master's program suggest simultaneous admission to the PhD program. All annual reappointments are based on the student's academic performance and prior GA performance (see Section 2.5). For students interested in making the step into the PhD program, one of the best ways to fairly and openly evaluate academic and GA performance, as well as competitiveness for future funding, is through the application process, which takes place in January/February. Master's students who graduate in the fall and are subsequently accepted into the PhD program should therefore expect to begin in summer at the earliest. 'Carryover' funding from the department to bridge the time between the end of the master's and the beginning of the PhD cannot be assured.

The application process. The process is formal in the sense that all of the following documents will be asked for (consistent with what is asked of external applicants): a statement of purpose (describing your research interests and academic direction); three letters of recommendation, a CV, and degree advising reports from OSU (in lieu of transcripts). Documents should be given to the Graduate Program Coordinator (Colin Kelsey).

Keep in mind: a) that applicants must have earned their master's degree by the last day of the semester prior to the one in which they would begin in the program (e.g., by end of Summer 2012 for Fall 2012 enrollment); b) the statement of purpose should be no longer than two pages (~1200 words) in length. This should be written for a broad audience, spelling out the applicant's past and future research interests, and including any relevant background information. We expect PhD applicants to provide a detailed outline of their research trajectory and their anticipated research project; c) the statement of purpose should name up to two mentors. These may or may not be the applicant's current advisor(s).

Deadlines. Complete applications are due by December 15 in the year before admission to the PhD program is sought.

Graduate selection process and timeline. The completed application will be considered alongside all other applications received for the PhD program. All files will be evaluated according to the same criteria, including academic excellence and fit with the department. The GSC, in consultation with the faculty as a whole, typically completes its decisions on graduate admissions by mid-February. We strive to make this process as rigorous as possible, and applicants should be aware that their file will be thoroughly and thoughtfully reviewed by multiple faculty members.

3.5 The PhD Program

The purpose of a PhD program is to train students to become broadly knowledgeable about the field of Geography/Atmospheric Sciences and a specialist in a particular subfield, while creating new knowledge that is rigorously grounded in a robust and appropriate empirical and theoretical context.

3.5.1 Timely Completion of Degree

Ideally, the PhD should be completed in 3 to 5 complete academic years, depending on the program and the type of research. Students are expected to submit a proposal and complete the candidacy exam within their first two years. Faculty are currently reviewing curricular and other demands to ensure that this become a reasonable schedule for most students. Faculty are also committed to providing a supportive intellectual and curricular environment to help students move through the program at a steady pace towards graduation. At the doctoral level, it is often difficult to lay out a generic 'ideal sequence' of study beyond these key benchmarks. This is because the timing and sequence of specific programmatic goals varies with the type of research being conducted.

In rare cases, extra time may be required to complete your Atmospheric Sciences PhD. You will have a maximum of nine years from entry to the program to the submission of

the final copy of the PhD dissertation to the Graduate School. The candidacy examination must be taken within four years from your entry into the PhD program; this is department policy. The final copy of the dissertation must be submitted to the Graduate School within five years of admission to candidacy or your candidacy will be cancelled; this is a Graduate School policy (see Graduate School guidelines on PhD degree programs here: http://www.gradsch.ohio-state.edu/section-vii.html).

3.5.2 Dissertation Proposal

As described in Section 3.3.1, proposals are due within a month of the Candidacy Examination. The proposal should be submitted for approval to the graduate advisor and to other members of the Candidacy Examination Committee and should ideally form the basis of substantive discussion about the student's research trajectory in the Spring meeting between the student and their advisor/committee during the student's second year in the PhD program.

The proposal should also be publicly presented within one month of the Candidacy exam. The style of the presentation is informal; the format is flexible. Please alert the Graduate Program Coordinator of the details of the presentation at least one week in advance in order to publicize the event.

For ASP students, discussion of the proposal is covered as part of the candidacy exam but committees should meet more regularly with students outside of exam settings (see Section 2.2.7).

It is important to note that the proposal and the candidacy exams serve two very different purposes: the exam assesses your scholarly competence as an atmospheric scientist, while the proposal addresses your dissertation plans.

3.5.3 Candidacy Exam

Admission to candidacy is arguably the most important step in the PhD program; see the Graduate School for university-level guidelines. Below we lay out candidacy expectations in our department.

The Candidacy Examination's purpose is to ensure that doctoral candidate possesses:

- competency in the subject matter of your area of specialization
- a working knowledge of the appropriate bodies of theory and methodology
- an acquaintance with atmospheric sciences research literature and journals
- the ability to express facts and ideas clearly and effectively in both spoken and written English
- an overall competence to pursue the independent research required for the dissertation.

Timing. Candidacy exams are generally taken at the end of the student's second year in the doctoral program. The Graduate School requires that students taking their

Candidacy Exam must be registered for at least three credit hours during the semester in which the examination is held and must be in good standing. The specific timing of your exam, however, will be determined in consultation with your committee.

Content and format. There are two portions of the Candidacy Exam, the written portion and the oral portion. Your committee will prepare the written portion and administer the oral portion of the examination. It is recommended that procedures be followed to ensure that both you and your committee have a clear idea of admissible areas of questioning. Such procedures might include the preparation of reading lists by examiners, a meeting to lay out which committee members will ask questions on which body of literature, and so on. It is intended that, **on the initiative of the student,** continuous consultation with all committee members should take place to ensure that examiners and examinee share a common view of the scope and format of the Candidacy Examination. This is ideally done in the context of a committee meeting.

Your committee has the responsibility to specify the precise format and timing of the written portion of the examination. Once the format and date for the examination are determined by the committee, the advisor will provide this information in writing to the Chair of the Graduate Studies Committee. **At least 1 month must be allowed between the notification of the GSC and the actual administration of the written examination.**

The written examination may be administered in one day or during a period not to exceed ten working days. Within the ASP there is considerable variation in the practice of candidacy exams, particularly with respect to the amount of time students are given to answer the committee's questions. Faculty are generally reluctant to standardize the procedure because they wish to ensure maximum flexibility such that the format be developed organically by the student and committee with attention to the model that best fits the student's needs. The desire for flexibility, however, must be balanced against students' rights to anticipate and prepare for the exam. It is therefore strongly recommended that students begin to discuss the specifics of the candidacy exam with their advisor and committee early in their second year, and that expectations be clearly established months in advance of the exam. The most common practice is for the student to produce written answers to 2 questions from each of the 4 faculty committee members over an 8 hour period spanning 2 days.

At the end of the allotted examination period, the student distributes copies of their answers to the committee for evaluation. If, based upon an evaluation of the written portion and discussion amongst themselves, the committee members see no possibility of a satisfactory overall performance in the Candidacy Examination, such a decision will be conveyed to the student, who may then waive their right to take the oral component. The committee cannot, however, deny the student the opportunity to take the oral.

The oral portion of the exam takes two hours. The candidate is asked questions about their written responses by all committee members in turn. The exam may also include discussion of the candidate's proposal, done in addition to, not in place of, discussion of the exam questions. Graduate School regulations limit attendance at the Candidacy Examination to the student and members of their committee only. No other persons are to be present during the exam.

Following the oral examination, the student's advisor notifies in writing the GSC Chair of the results of the exam. **The decision of the examining committee on both the written and oral examination must be unanimous.** If for any reason a failure is recorded, or if the

student waives their right to take the oral, the student is permitted to take a second examination if the committee recommends this course of action. The nature of the second Candidacy Examination shall be determined by the student's committee but **must** include an oral portion. The Candidacy Examination Committee must be the same as in the original examination unless substitution is approved by the Dean of the Graduate School.

The results of the PhD Candidacy Examination will be announced to the department.

3.5.4 Dissertation

Students planning to graduate in a given quarter are required to submit the **Application to Graduate-Doctoral Degree** form (http://www.gradsch.ohio-state.edu/Depo/PDF/DoctoralGraduate.pdf) by the second Friday of that quarter.

Writing and defending a doctoral dissertation represents the culmination of the PhD program. The dissertation must conform to Graduate School format requirements as described in the Guidelines for Preparing and Submitting Theses, Dissertations and D.M.A. Documents (http://www.gradsch.ohio-state.edu/Depo/PDF/Guidelines.pdf). On questions of style, such as the format of references, students are advised to refer to the "Information for Contributors" for journals published by the Association of American Geographers and the American Meteorological Society.

Initially you will prepare a working draft of the dissertation for your committee. Expect this draft to undergo several revisions. After the working draft is approved by your committee, you must prepare a draft that presents the research material in the approved style and format. If this draft is approved by your committee, the **Draft Approval/Notification of Final Oral Examination** form (http://www.gradsch.ohio-state.edu/Depo/PDF/Doc Oral.pdf) is signed and filed with the PhD office of the Graduate School. This form must be submitted to the Graduate School no less than two weeks prior to the date of the Final Oral Examination. You must submit a complete hard copy of your dissertation draft to the Graduate School at the time the Draft Approval form is submitted.

After the Draft Approval form has been filed with the Graduate School, you will prepare the final draft of the dissertation and submit it to your committee. All members of your committee, including the appointed Graduate School Representative, must receive a copy of the final draft at least one week before the Final Oral Examination. One copy of the final dissertation with an abstract of 350 words or less must be deposited with the Graduate School. Another dissertation copy must be filed with the Chair of the Graduate Studies Committee.

To summarize, the first stage of a dissertation consists of working drafts on which you seek advisor (and often committee) feedback. The second stage is the approved draft, which is submitted to the Graduate School in preparation for the final oral examination. This draft is defended. The third stage involves revising, polishing, and submitting to the Graduate School the final dissertation after the oral examination.

3.5.5 Dissertation Defense

The "dissertation defense" is also known as the Final Oral Examination. The purpose of this exam

is to test "originality, independence of thought, the ability to synthesize and interpret, and the quality of research presented." The examination is taken by doctoral candidates who have satisfied all other requirements for the degree. This examination is largely concerned with the dissertation, but it may range over the entire field of the candidate's specialty.

The Final Oral Examination must occur within five years of the successful completion of the Candidacy Examination (Graduate School and department rule). The student must be registered for the appropriate number of credit hours during the semester in which the examination is taken (please see Graduate School rules). The Final Oral Examination Committee consists of your committee plus a Graduate School Representative. By decision of the Graduate Studies Committee, you will be considered to have successfully completed your Final Oral Examination only if the decision of "satisfactory" is unanimous.

The student is responsible for scheduling the defense, and for booking the room in which it will take place. This room should have the capacity to accommodate the public and have infrastructure for a presentation.

The entire exam takes two hours and has two main components. There is some flexibility regarding the precise sequencing of the exam, but it must include the following components:

- private discussion among the committee members (including the Graduate School representative).
- presentation by the candidate of the research. The presentation should be modeled after those given at professional meetings. This portion is open to the public; the ASP encourages their attendance. Open examinations help student's gain valuable experience in presentation while the public gains the opportunity to learn about this research. The public will be permitted to ask questions but the question period may not exceed 10 minutes. (The student should not provide any food or drink during either portion of the oral examination.)
- the 'closed' portion of the exam should take up the majority of the examination period as it is the primary evaluative portion. All visitors must withdraw, leaving only the student, their committee, and the Graduate Faculty Representative. The representative's role is to ensure that the defense is carried out thoroughly and fairly over the remaining time (see:http://www.gradsch.osu.edu/graduate-faculty-representative.html).

In some cases, a committee member is external to the University and cannot attend the defense in person. In this case, the student and advisor must arrange for this person to be "virtually" present through the use of Skype or some other long-distance interface. This is a Graduate School requirement. All committee members and the Graduate Faculty Representative then ask the student questions about their dissertation. The student is then asked to step out of the room while the committee and Grad Faculty Rep discuss their assessment of the student's performance. The student is then called back into the room and informed of the result.

It is common for the committee to request changes to the dissertation at this stage. It is the responsibility of the student and their advisor to ensure that these changes

are made prior to the submission of the dissertation to the Graduate School. On completion of all such changes, the student must file a copy of the dissertation and a signed copy of the Final Approval form with the Graduate School. All additional graduation requirements as specified in the *Graduate School Handbook* must be met prior to graduation.

3.5.6 Summary of PhD Requirements

Section VII of the Graduate School Handbook summarizes the PhD degree graduation requirements. See http://www.gradsch.ohio-state.edU/7.14-summary-of-ph.d.-degree-graduation-requirements.html.

4. Financial Support

4.1 Graduate Student Funding

The ASP recognizes the importance of contributing to graduate scholarship by reducing the financial burden of graduate education. For this reason, every effort is made to provide qualified candidates with financial assistance.

Graduate students typically receive funding in the form of a **Graduate Associate (GA)** or a **Fellowship** appointment. Graduate associates and fellows differ in terms of administration of their appointment as well as in enrollment criteria to maintain an active appointment. Students are usually appointed as *fellows* either because they were awarded University Fellowships from the Graduate School or because they have secured funding from outside of the ASP or Geography. In some situations, graduate students are appointed as fellows to faculty research projects. Most funded graduate students in ASP are appointed as *graduate associates* (GAs) in Geography. There are three types of GA positions: Graduate Teaching Associate (GTA), Graduate Research Associate (GRA), and Graduate Administrative Associate (GAA).

4.1.1 Responsibilities and Evaluation

Graduate Fellows: Graduate fellowships typically combine non-service years with service years. Fellows are expected to enroll in 12 credit hours every term pre-candidacy and 3 credit hours post-candidacy.

Graduate Research Associates: The responsibilities and format for evaluation of GRAs are determined by the project manager on a semester basis. GRAs must enroll for at least 8 credit hours during fall and spring semesters, 4 credit hours during summer term and 3 credit hours post-candidacy.

Graduate Teaching Associates: GTA responsibilities vary by appointment. Most GTAs act as assistants to a classroom instructor; in some cases this may include teaching lab sections independently. GTA responsibilities are established at the beginning of the semester in consultation with the course instructor (see Section 2.3.1 and Appendix K).

Some GTAs have full teaching responsibilities. These positions will generally be reserved for PhD students who are post-candidacy. GTAs acting as instructors are evaluated through university SEIs (Student Evaluation of Instructor). GTAs must enroll for at least 8 credit hours during fall and spring semesters, 4 credit hours during summer term and 3 credit hours post-candidacy.

Graduate Administrative Associates: The responsibilities and evaluation of GAAs are determined based on the individual appointment. GAAs must enroll for at least 8 credit hours during fall and spring semesters, 4 credit hours during summer term and 3 credit hours post-candidacy

4.1.2 Registration Requirements

Students should review the registration requirement table and verify that they are enrolled in a sufficient number of credit hours for their respective appointment and academic term (e.g., fall, summer). The registration table is available in the Graduate School Handbook at http://gradsch.osu.edu/section-iii.html.

Students must be fully enrolled by 5PM one week before the start of the academic term and must maintain that level of enrollment throughout the term. Enrollment in insufficient credit hours before the start of the term will result in a late fee, which the student will be responsible for paying. Please note that wait listed courses do not count toward minimum credit hour enrollment. Students who are waitlisted in a course should seek the advice of the ASP GSC Chair on how to proceed if they feel they will fall short of

the required course credit hours.

4.1.3 Stipends

"Stipend" refers to what students are paid as employees of the University. Stipend amounts follow set guidelines, as outlined below. Even among students paid at the same rate (e.g., GTA Level II), there can be differences in total monthly 'take-home' pay because of variations in payroll deductions or taxes. If you have any questions about the accuracy or fairness of your pay, please raise the issue with the department's fiscal/HR officer Juliana Hardymon.

Also, to ensure that you receive your paychecks, reimbursements, or other funds in a timely manner, please alert fiscal officer Juliana Hardymon of any change of address or contact information changes **immediately**.

The Graduate Teaching Associate (GTA) Level I stipend is for masters students. "Level I" applies to all students working towards their master's degrees, and is sometimes abbreviated as "pre-MA/MS level."

The Graduate Teaching Associate Level II stipend is for PhD student. "Level II" refers to students who have their master's degree and are working towards their PhD but have not yet passed their candidacy exam. This level is sometimes called the "MA/MS-level."

The Graduate Teaching Associate Level III stipend is for students who have passed their candidacy exam. This stipend level is effective for the first full term following attainment of post-candidacy status.

GTAs who have full instructor responsibilities for a course will have their base stipend augmented by $150/month beginning Autumn 2012.

Stipends for Graduate Research Associates are determined by the individual faculty members. Every effort will be made, however, to ensure that GTA and GRA funding levels are comparable.

Stipends for Fellows are indicated in their letters of offer (in the case of University Fellows) or arranged with the fellowship sponsor.

Students receive their stipends on the last working day of the month. The first paycheck will be received in the last day of the first full month of the academic term.

4.2 Fees

4.2.1 Payment of Tuition and General Fees

Fellows and Graduate Associates with a 50% appointment or greater receive a waiver of university tuition, non-resident fees and general instructional fees. Students with a 25% appointment receive a waiver of half of these fees. The student must meet enrollment requirements for the duration of his or her appointment in order to receive this tuition and fee benefit.

For the 2011-2012 academic year, fees were $28,282.50 for out-of-state students and $13,230 for Ohio residents (assumes 9 credit hours).

4.2.2 Summer Session Fee Waiver

Students who are on a graduate associate appointment of 50% or more for two consecutive semesters are

granted a waiver of general fees, out-of-state fees and university tuition for the summer session without holding an appointment. The student must meet enrollment criteria for the duration of this summer session to receive this waiver.

Students using the summer fee authorization must be registered for at least four credit hours. Post-candidacy doctoral students must register for at least three credit hours. A graduate student who elects not to enroll during the summer session may not defer the use of the summer fee authorization.

Students who have been on graduate associate appointments between 25-49% for two consecutive semesters are eligible to receive a summer session fee waiver at half the full authorization rate.

In summer 2012, registering for 4 credit hours (minimum required for summer fee authorization) these fee waivers are expected to amount to $7,012 for out-of-state students and $2,830 for Ohio residents.

4.2.3 Other Fees

Certain fees will not be paid by the department. In 2012-2013, semester fees for students enrolled in 8 credit hours included a COTA fee charged by the University for Campus and City bus service ($13.50), a student activities fee ($37.50), a student union fee ($74.40), and a recreation fee ($123).

These fees, as well as the student's portion of the health insurance premium, are deducted each month via payroll deduction (see below).

4.3 Benefits

For a complete description of benefits available to graduate associates, see the benefit overview book for GAs published by Office of Human Resources: http://hr.osu.edu/hrpubs/ben/overviewbookga.pdf.

4.3.1 Health Insurance

Ohio State Students must provide proof of health insurance each year during the annual Student Health insurance selection/waiver.

Ohio State Graduate Associates have two health plan options - each offers a comprehensive benefit plan via a network of providers. Both Student Health Insurance and Prime Care Advantage offer benefits that include medical and prescription drug coverage. Student Health Insurance also has a health plan that includes medical, dental and vision coverage and Scholastic Emergency Services' global emergency medical assistance. Prime Care advantage includes adoption assistance and the GlobalCare Emergency Medical Referral Service.

Students who are on a fellowship or a standard graduate associate position of 50% FTE or more receive an 85% subsidy of their health insurance premium for both the student and their dependents.

To receive the premium, GA's must be enrolled in sufficient credit hours (see above) for the entire academic term. A student does not receive the subsidy if he or she is unemployed during a month or term. Students receiving the summer fee waiver do receive the health insurance subsidy, but the remaining 15% must be paid directly as payroll deduction is not an option for these students.

The health insurance fee also includes medical, pharmacy, dental and vision coverage. Some of these charges are described at this website: http://shi.osu.edu

4.3.2 Retirement Programs

Graduate associates are considered employees of the University and have the option to either elect to participate in the applicable retirement system or to be exempt from retirement withholding. The election must occur within 30 days of becoming an employee. If retirement election forms are not submitted within this timeframe, the student by default will enroll in OPERS, which involves contributing 10% of one's gross pay to a retirement program. Retirement options cannot be changed without a change in employment status after this 30 day window.

The optional exemption is only available to students who have registered for sufficient credit hours. Under-enrolled students do not qualify for exemption from the OPERS program.

Graduate fellows are not considered employees and do not contribute to this retirement program.

Note that public institutions in Ohio do **not** participate in the federal Social Security system, other than contributions to Medicare Hospital Insurance Fund (Medicare Part A). The Medicare contribution rate is currently 1.45% of earnings.

4.4 Payroll Deduction

Student fees and health insurance premiums are deducted from students' paychecks evenly throughout the term (see http://hr.osu.edu/forms/ga-feeauthform.pdf). Students are **strongly** encouraged to review both their student accounts and their paystub to verify the accuracy of the deductions.

4.4.1 Direct Deposit

Students are encouraged to enroll in direct deposit. You can enroll for direct deposit one business day after your appointment is entered into the Human Resource Information. Please have your account number(s) and corresponding routing number(s) handy before following these steps:

- Enter the ePayroll online: paperlesspay.talx.com/osu
- Enter your 8 or 9 digit OSU Employee ID Number and PIN; your 8 or 9 digit ID number can be obtained from your BuckID Card (if issued after 2002), Medical Center ID Badge, and/or your departmental human resources professional
- Click the Direct Deposit icon
- Follow the web instructions
- Read the legal confirmation
- Print a copy for your own records
- You will receive an e-mail notification of the set up of your account(s)
- Your funds should be directly deposited into your requested account(s) within 1-2 pay periods. An e-mail notification will be sent to your lastname.#@osu.edu account (by default) regarding the change to your account.

For additional details about direct deposit: http://controller.osu.edu/pay/pay-dirdep.shtm

4.4.2 View Pay Stub

The Ohio State University uses a paperless system for all paychecks and pay stub information. All faculty, staff and student employees can now receive their pay stub information online or via touch-tone telephone using an interactive voice response (IVR) system.

Receive your pay stub information at paperlesspay.talx.com/osu or call toll-free 1-866-OSU-EPAY (1-866-678-3729). See also: http://www.ctlr.ohio-state.edu/pay/pay-paycheck.shtm#payroll.

4.5 Reappointment and "Contracts"

The department is committed to working with each student, given adequate academic progress, to secure financial support throughout the student's graduate career at Ohio State.

When a student is admitted to the graduate program, they typically receive a **letter of offer**. This letter outlines the department's **intent** with respect to the financial support of that student. By laying out the details of student funding over their anticipated fundable tenure in the program (two or four years, typically), the department signals that it is keen and prepared to support the student as laid out in the letter. This letter, however, does **not** represent a contract between the department and the student, and it does not **guarantee** that the student receive the funds as described. This is because funding commitments are renewed every year based on evidence (garnered during the spring review process) of the student's good progress through their program. Should the student not make good progress (defined in Section 2.5) their appointment may not be renewed.

Renewal of an appointment is signaled by the annual, official **GA Appointment document** (see http://www.gradsch.osu.edu/Depo/PDF/GA.pdf). This multi-page document is signed only once good progress by the student has been established. This is a **formal contract** in that it is a binding document guaranteeing the student's appointment for the following year.

All GAs must have a Graduate Associate Appointment Document on file with the department's fiscal officer. The document must be signed by the GSC Chair, the Department Chair, the student and (in cases of appointments sponsored by individual faculty members) the sponsoring faculty member.

Every effort is made to make reappointment decisions before the end of the academic year.

In some cases, students win research or fellowship support that 'trumps' their GA appointment. We encourage and celebrate such support. In such cases, the student should work closely with their advisor, the Department Chair, and the departmental fiscal officer to come to an agreement regarding how and for how long the student's GA-ship be suspended, when it will be renewed, and whether such support should constitute an "additional year" of departmental support.

4.6 Travel and Research Support

The Department encourages travel to present and conduct research, as shown by its financial support for both. When the department is unable to provide support, students look for other funding opportunities. Some of the more common ones are listed below.

4.6.1 Departmental Support

Students who receive University Fellowships are typically offered a travel and research allowance while they are active students in the Department. Expenditures must follow University policies and procedures.

The Department encourages students to attend the annual conference of the Association of American Geographers or similarly reputable conference. Students have historically received modest financial support to attend such conferences, though this support is contingent upon the outcome of the spring review and the availability of funding.

On occasion, individual faculty members provide travel or research support for their mentees. This support is given at the discretion of individual faculty members with Department Chair's approval.

4.6.2 Awards for Outstanding Graduate Students

The annual performance evaluation (spring review) will be used to determine 3-5 graduate students as recipients of additional support for travel and research.

4.6.3 Ray Travel Award

The Edward J. Ray Travel Award for Scholarship and Service (Ray Award) encourages and enables graduate students across the university to participate in professional conferences, both in their respective fields and in the broader academic community, by reimbursing or partially reimbursing the expenses incurred by graduate students during travel to conferences and meetings to present original research. This award is offered through the Council of Graduate Students and awards are based on various service criteria. For further details, see http://cgs.osu.edu/funding/ray-travel-award/

4.6.4 Office of International Affairs

The Office of International Affairs provides scholarships and grants for graduate students, including the International Affairs Grant, Fulbright-Hays Doctoral Dissertation Research Abroad, FLAS Fellowships, and Mershon Center Graduate Student Grants. See http://oia.osu.edu/grants-and-scholarships/graduates.html for a complete list of opportunities offered by OIA.

A note on departmental cash matches: The International Affairs Grant and occasionally others require the Departmental cost-sharing contribution of $500. Students are expected to ask for such a contribution from their advisor and/or Department Chair *before* applying for the grant. Although the Department wishes to support graduate students as much as possible, we are unable to approve all funding requests received.

Appendix A. Atmospheric Sciences Program Graduate Courses

Courses in the Atmospheric Sciences Program in ASP and in Geography

Graduate Courses

Geography 5900 (Weather, Climate, and Global Warming)
Atmospheric Sciences 5901 (Climate System Modeling: Basics and Applications)
Atmospheric Sciences 5950 (Atmospheric Thermodynamics)
Atmospheric Sciences 5951 (Dynamic Meteorology I)
Atmospheric Sciences 5952 (Dynamic Meteorology II)
Geography 5921 (Boundary Layer Climatology)
Geography 5922 (Microclimatological Measurements)
Geography 5940 (Synoptic Meteorology Laboratory)
Geography 5941 (Synoptic Analysis and Forecasting).
Geography 5942 (Severe Storm Forecasting)

Seminars

Atmospheric Sciences 8900 (Atmospheric Sciences Seminar)
Geography 8902 (Applied Climatology)
Geography 8920 (Microclimatology seminar)
Geography 8950 (Dynamic Climatology)
Geography 8960 (Special Problems in Physical Geography)
Geography 8880 (Interdepartmental Seminar)
Geography 8896 (Interdepartmental Seminar in polar and Alpine Studies)

Independent Research Courses

Geog 7193 Independent Studies in Geography
Geog 7999 Thesis Research
ASP 6191 Internship in Atmospheric Sciences
ASP 7193 Individual Studies in Atmospheric Sciences
ASP 7194 Group Studies in Atmospheric Sciences
ASP 8191 Internship in Atmospheric Sciences
ASP 8999 Research in Atmospheric Sciences (Dissertation)

Other courses of Potential Interest to Atmospheric Sciences Students

Geography 5220 (Fundamentals of Geographic Information Systems)
Geography 5221 (Spatial Simulation and Modeling in GIS)
Geography 5270 (Geographic Applications in Remote Sensing)
EarthSc 5550 (Geomorphology)
EarthSc 5621 (Introduction to Geochemistry)
EarthSc 5628 (Environmental Isotope Geochemistry)
EarthSc 5650 (Glaciology)
EarthSc 6750 (Paleoclimatology)
Geography 8102 (Spatial Data Analysis (seminar))

Appendix B. Atmospheric Sciences Program MS Curriculum

Atmospheric Sciences MS Curriculum (ASP) **(all courses are GEOG unless specified otherwise)**			
Segment of Graduate Program (Semesters)	**Quarter course name**	**Credit hours**	**Grade**
1. Department requirements			
a. Completion of any deficiencies in calculus, physics, and/or statistics			
2. Required courses (12 hours)			
ATMOSSC 5950	Atmospheric Thermodynamics	3	
ATMOSSC 5951	Dynamic Meteorology I	3	
ATMOSSC 5952	Dynamic Meteorology II	3	
8900-level seminar	Any in Atmospheric Science, Geography/Climatology or relevant topics	3	
3. Competency in computer programming			
4. Select at least two of the following * (6 hours):			
5900	Climatology	3	
5901	Climate System modeling: Basics & Applications	3	
5921	Microclimatology: Boundary Layer Climatology	3	
5922	Microclimatological Measurements		
5940	Synoptic Meteorology Laboratory	2	
5941	Synoptic Analysis and Forecasting	3	
5942	Synoptic Meteorology: Severe Storm Forecasting	3	
8960	Seminar: Problems in Physical Geography	3	
8950	Dynamic Climatology	3	
8920	Microclimatology	3	
8902	Applied Climatology	3	
ATMOSSC 8900	Atmospheric Sciences Seminar	3	
An appropriate level course from another Department e.g. Paleoclimate or Geochemistry			
***Any 8900-level courses selected from this list cannot count simultaneously for 8900-level seminar in req 2. above**			
Advisor Signature and Date:			
Name:			
Graduate Major/Specialization:			
Campus ID:			

Appendix C. Atmospheric Sciences PhD Curriculum

ASP PhD Advising Sheet			
Segment of Graduate Program (Quarters)	**Quarter course title**	**Credit hours**	**Grade**
1. Required Prerequisites or Supplements			
a. University requirements (See Graduate School Handbook)			
b. Completion of coursework equivalent to OSU		30	
3. Atmospheric Sciences/Geography 2 or more 8900 level seminars (at least 6 hours)			
3. Curriculum developed in consultation with your advisor			
Advisor Signature and Date:			
Name:			
Graduate Major/Specialization:			
Campus ID:			

D. ***Program of Study for Master's Degree Students in the Atmospheric Sciences Program***

Student's Name _____

Specialty Field _____

Thesis Topic_____

Deficiencies in Calculus or Statistics (List courses): _____

Required Courses (9 hours) **Hours**

Atmospheric Sciences 5950 (Atmospheric Thermodynamics) _____

Atmospheric Sciences 5951 (Dynamic Meteorology I) _____

Atmospheric Sciences 5952 (Dynamic Meteorology II) _____

S**pecialization and Supporting Courses** (minimum 12 hours)

Course Number **Course Title**

_____ _____

_____ _____

_____ _____

_____ _____

Graduate Seminar Courses (at least 1, per minimum 6 hours)

Course Number **Course Title**

_____ _____

_____ _____

Additional Electives (as needed to meet minimum hours)

Course Number **Course Title**

_____ _____

_____ _____

Professional Development

Papers given at Meetings:_____

Independent study course (repeat as necessary)

Geog 7193 Individual Studies

Total Program Credit (minimum 30 hours):

D. ***Program of Study for Master's Degree Students in the ASP***

Committee Members

Advisor			
Print Name	Signature	MorP Status	Graduate Program
Committee Member			
Print Name	Signature	MorP Status	Graduate Program
Committee Member			
Print Name	Signature	MorP Status	Graduate Program

Date submitted to GSC

Chair, Atmospheric Sciences Program, Graduate Studies Committee — Date

E. ***Program of Study for Doctoral Students in the Atmospheric Sciences Program***

Student's Name _____

Specialty Field _____

Dissertation Topic.

Proficiency Equivalent to MA core (list course name, university and number of hours)

Advanced Courses (at least one per year, minimum 20 credits)

Course Number	**Course Title**
_____	_____
_____	_____
_____	_____
_____	_____

Professional Development

Papers given at Prof. Meetings:_____

Additional Electives (as needed to meet minimum credits)

Course Number	**Course Title**
_____	_____
_____	_____

Independent study and thesis courses (repeat as necessary)

ASP 7193 Individual Studies:

ASP 8999 Dissertation Research:

Post-Masters Credits to date (minimum of 80 credits)

Masters Credits (maximum of 45 credits)

Total Program Credit to date (minimum **125):**

E. ***Program of Study for Doctoral Students in the ASP***

Committee Members

Advisor			
Print Name **Committee Member**	Signature	MorP Status	Graduate Program
Print Name **Committee Member**	Signature	MorP Status	Graduate Program
Print Name **Committee Member**	Signature	MorP Status	Graduate Program
Print Name	Signature	MorP Status	Graduate Program

Date submitted to GSC

Chair, Atmospheric Sciences Program Graduate Studies Committee — Date

Appendix F.

Instructor name: Course: TA name:

Course: _____ Quarter/Semester & Year:

SECTION ONE - Complete collaboratively before or during the first week of the course. Please have a prospective/forward-looking conversation of expectations and responsibilities. Use the table below to frame your conversation and indicate division of responsibilities as appropriate. Add notes to clarify if necessary.

< H	Instr	Activity	Comment
	•	Conducting lectures	
		Teaching in lab/recitation	
		Preparing exams/quizzes	
		Preparing in-class or take-home assignments	
		Grading exams/quizzes	
		Grading in-class or take-home assignments	
		Holding office hours (when & where):	
		Attending lectures/exams	

SECTION TWO - Complete collaboratively by the end of the week after finals. (Give copy to Colin Kelsey.) Thinking about course logistics, student engagement, TA/Instructor interaction, etc., please comment on the following:

What are some things that worked well in the course?

What are some things that could have been improved in the course?

Signatures: Instructor: _____ _____

Appendix G.

ATMOSPHERIC SCIENCE PROGRAM GRADUATE FACULTY:

Jason Box, Ph.D., Colorado, 2001, Associate Professor. Atmosphere-surface interactions; microclimatology; land-ice-climate interactions; remote sensing.

David H. Bromwich, Ph.D., Wisconsin, 1979, Professor, Geography, and Senior Research Scientist, Byrd Polar Research Center. Observational and modeling studies of polar weather, polar climate and polar climate change including links with the tropics.

Jay S. Hobgood, Ph.D., Ohio State, 1984, Associate Professor, Director, Atmospheric Sciences Program. Tropical meteorology; atmospheric dynamics; numerical weather prediction.

Jialin Lin, Ph.D., SUNY-Stony Brook, 2001, Associate Professor. Tropical climate dynamics, global climate modeling.

Bryan Mark, Ph.D., Syracuse, 2003, Associate Professor. Paleoclimatology, hydroclimatology, glacial geomorphology.

Ellen Mosley-Thompson, Ph.D., Ohio State, 1979, Distinguished University Professor, Geography and Director, Byrd Polar Research Center. Ice core paleoclimatology, global climate change, polar and alpine environments.

Alvaro Montenegro, Ph.D., Florida State University, 2004, Assistant Professor. Dynamic climatology, climate modeling, paleoclimatology.

Jeffery C. Rogers, Ph.D., Colorado, 1979, Professor, Geography. Synoptic meteorology and synoptic climatology, interannual variability and climatic change in the U.S. and the Arctic.

Lonnie G. Thompson, Ph.D., Ohio State, 1976, Distinguished University Professor, School of Earth Sciences and Senior Research Scientist, Byrd Polar Research Center. Glaciology, paleoclimatology, alpine environments, global climate change. (Affiliated faculty)

Appendix H: Departmental Deadlines

Departmental Deadlines

- Independent Study and Dissertation Proposals are due with prior advisor approval by **Monday of the second week of the Semester**. Students should develop with their advisor (or other faculty member) a proposal of ½ to one full page in length that discusses planned accomplishments in a given Semester. Other information that needs to be included is which class you are taking (5193, 7193 or 8999), who are you taking with, and the number of hours you are taking.
- Independent Study and Dissertation Updates of Accomplishments are due by the **Friday of Finals Week** without approval. The update should be ½ page to a full page and discuss what was accomplished in a given semester relative to the Proposal.
- You must name you advisor by **Friday, January 11, 2013.**
- In your first year, you must set-up a preliminary committee by **Friday, March 22, 2013.**
- Graduate Portfolios for Spring Review are due **Friday, March 08, 2013.**
- For all research related travel a Travel Plan must be submitted along with your Pre-Trip Worksheet. Your travel plan should range from ½ page to 3 pages and discuss why you are going on the trip, what you hope to accomplish and how you are going to accomplish it. Within a week of returning from the trip, you will need to submit a Work Report which should be ½ page to 2 pages in length and discuss what you accomplished on your trip.

Graduate School Deadlines

- Applications to Graduate are due by the third Friday of every Semester-Master's Form (http://www.gradsch.ohio-state.edu/Depo/PDF/Master%27sGraduate.pdf) and Doctoral Form (http://www.gradsch.ohio-state.edu/Depo/PDF/DoctoralGraduate.pdf)
- In preparation for the doctoral candidacy exams, he Notification of Doctoral Candidacy (http://www.gradsch.ohio-state.edu/Depo/PDF/Doc_Notify.pdf) should be submitted to the GSC Chair one month prior to the oral exam. The completed form must be submitted to the Graduate School at least two weeks before the oral exam.
- Registrations for classes (http://www.gradsch.ohio-state.edu/appendix-a.html)