

School of Meteorology

Graduate Student Handbook

2016-2017

Prepared by the SoM Graduate Studies Committee



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OU Graduate College Services and Resources

1.1. Graduate College Services

The [University of Oklahoma Graduate College](#) is committed to serving the needs of graduate students and faculty. From providing [tuition waivers](#) and research grants, to assisting students with completing their degree requirements, the [Graduate College staff](#) is dedicated to the success of each of OU's more than 4,000 advanced degree students. We expect students to be aware of the [Graduate College deadlines](#) and to use the [Graduate College forms](#). The graduate college offers a variety of [events](#) each year to foster networking and enhance the campus life for OU graduate students. It also offers a variety of language programs for [international students](#).

1.2. Important Graduate Student Resources

1.2.a. Graduate College Bulletin

The [Graduate College Bulletin](#) contains current policies and procedures related to graduate studies. It is the responsibility of all graduate students to familiarize themselves with this information in addition to specific requirements of the particular discipline in which they are seeking a degree.

1.2.b. Graduate Student Handbook

The information in the [OU Graduate Student Handbook](#) is intended for informational purposes only. It does not supersede other university or Graduate College publications, such as the Graduate College Bulletin or the University of Oklahoma Student Code.

1.2.c. Graduate Assistant Handbook

As a graduate assistant, you belong to a unique group within the University of Oklahoma in that you have two basic responsibilities. The [OU Graduate Assistant Handbook](#) describes the university policies that deal with your role as a graduate assistant. Your academic unit may also have its own policies regarding eligibility, appointment, enrollment, workload, performance review, and reappointment.

1.2d Graduate College Travel Funding

The graduate college offers some travel funding for both Masters and Ph.D. students. There are limits to the amount a student can receive per degree program, but they may be a useful resource for both students and advisors. More information can be found here:

http://www.ou.edu/gradweb/funding_and_aid/scholarships_travel_research_grants.html.

2. SOM POLICIES FOR THE GRADUATE PROGRAM

The [OU Graduate College](#) and [School of Meteorology](#) (SoM) provide various options for students to be admitted into the graduate program in Meteorology. These options, related admissions policies and degree requirements are summarized in this document. These policies provide guidance in addition to the rules of the OU Graduate College, which are summarized in the OU [Graduate College Bulletin](#).

The following sections describe the current SoM graduate program degree requirements and policies, which apply to all students who entered the OU M.S. or Ph.D. programs in Meteorology in Fall 2013 or thereafter. Information about degree requirements and policies for students who were admitted to one of the SoM graduate programs prior to fall 2013 can be found in chapter **Error! Reference source not found.**

2.1. Knowledge Expectations for Incoming Graduate Students

Incoming graduate students at the SoM are normally expected to have a working knowledge of calculus, vector analysis, linear algebra, ordinary differential equations, partial differential equations, statistics, and computer programming (e.g. Unix and either Fortran or C). However, because of the diverse educational backgrounds of our incoming students, some may need to complete courses on prerequisite material. This is usually done during the first year. In particular, please note that a course in Partial Differential Equations (or equivalent coursework, such as in a course on Mathematical Methods for Physicists) is a prerequisite for one of the core classes, METR 5113, Advanced Atmospheric Dynamics 1. For further information on course prerequisites, please consult the [course listings](#) or contact the appropriate course instructor.

2.2. Application for the SoM Graduate Program

There are two steps in the application for admission:

1. Every applicant should complete and submit (preferably by email to metadmit@ou.edu) the School of Meteorology [Rapid-Response Graduate Degree Application Form](#) together with photocopies of all academic transcripts. No reference letters need to be sent at this step. Based on your academic record, the School of Meteorology will then respond to you with some advice on your prospects for being admitted in the formal application process. This first step does not cost any money.
2. If you choose to continue with a formal application, the second step is to apply to the [University of Oklahoma Graduate College](#). Please refer to their [admission procedures](#) for further information. In the second step, you will also arrange to have three letters of reference and all transcripts sent directly to the University of Oklahoma Graduate College.

The deadline for the formal application to the University of Oklahoma for Fall admission is June 1st for U.S. residents and April 1st for international students. The deadline for Spring is November 1st for U.S. residents and September 1st for international students. Please refer to the [Office of Admissions for further information](#). However, for Fall admission, the School of Meteorology prefers to receive the application when you have one semester (or less) to complete in your current degree program. **For most applicants, that means submitting the [Rapid-Response Application](#) in late December or early January**, as soon as your Fall semester grades are available on a photocopy of the transcript. The Graduate Admissions Committee hopes to provide a response to you within "days or weeks" with advice on prospects for proceeding with the second step, formal application to the University of Oklahoma Graduate College. Beginning in early February, the School of Meteorology (and separately OU) may notify you that you have been admitted to the graduate degree program, and the School of Meteorology may notify you of an offer for employment as either a Graduate Teaching Assistant or Graduate Research Assistant.

2.3. Admission ¹

The OU Graduate College expects each department to designate a Graduate Admissions Officer (GAO) who has the authority and responsibility for all admissions decisions. The SoM has decided that its Graduate Liaison will also serve as GAO. The SoM expects that, normally, the GAO will consult with the SoM Graduate Admissions Committee (GAC) before making admissions decisions. The GAC is formed each academic year at the first meeting of the SoM Graduate Studies Committee (GSC). The GAC is responsible for the evaluation of graduate admission applications and communication with the applicants regarding the status of their applications. The GAC is chaired by the GAO and consists of at least two **regular SOM faculty** members elected by the GSC. The staff person handling graduate admissions, normally the Coordinator for Academic Student Services, serves as a staff representative on the committee. **The Adjunct/Affiliate² member of the GSC will be invited to serve as a non-voting Adjunct/Affiliate Representative on the GAC.**

The SoM GAC screens all graduate admission applications and ranks them into the following four categories:

1. Exceptional
2. Well Qualified
3. Conditionally Qualified
4. Not Qualified

The rankings will be obtained based on the following factors:

- i) Suitability of their academic background for success in the program (e.g., degree in atmospheric sciences, earth sciences, physics, engineering, mathematics or related disciplines),
- ii) Academic record including overall GPA, GPA in their major and their grades in core classes critical to success in our program (e.g., dynamic and physical meteorology, math series from calculus to partial differential equations, physics, engineering classes, etc.),
- iii) reference letters,
- iv) GRE scores,
- v) other factors indicating success including publications, research, awards or employment experience, and
- vi) TOEFL for foreign students.

The composite GAC rankings will be provided to the faculty for review and will be utilized in the following manner:

- Students ranked as Not Qualified will receive early notices of their application not being accepted by the School.
- Recruiting efforts such as invitation to visiting student weekend and personal contact by the GAC and the School's staff will focus on those students in the top two categories.
- TA offers will be made based on merit, beginning with the Exceptional and strongest Well Qualified students who have research interests that match those of our faculty.
- Offers of GRAs will normally be made to those students that are Exceptional or Well Qualified. Offers may be made to Conditionally-Qualified students upon GAC approval of an exception (e.g.,

¹ Approval of Admission Policies and New Degree Requirements by SoM faculty on October 11, 2012

² Adjunct status is given to those who are employed at OU; affiliate status is given to those employed outside of OU (e.g. federal employees)

the faculty member has been turned down by higher ranked students and is unable to find a student with interests in their general research area)

To be consistent with Graduate College practices, the TA and GRA offers will be made from the School and signed by the Director or Associate Director of the School. In the case of a GRA, the person who will support the student will also sign the offer letter to show their commitment to the student. If a GRA offer has been made to an applicant and another faculty member is interested in that applicant, the applicant will be asked to decline within a reasonable period of time all but one of these various offers. While we cannot ask a student to make a decision about coming to OU before the 15 April deadline, we can ask for a reasonably quick decision on selecting their preference for an OU adviser. In general, early career faculty will be given preference in the selection process.

2.4. Annual Evaluations

The Graduate College requires that all OU departments conduct an annual evaluation of their graduate students' progress. The [Graduate Student Status Report](#) is the tool by which the SoM satisfies this requirement. **All SoM graduate students and their advisors must fill out these Reports each year and submit them to the SoM Graduate Liaison by April 15.**

2.5. SoM Degree Requirements³

2.5.a. Master of Science in Meteorology

- 30 Graduate Credit Hours including:
- 16 credit hours of letter-graded, regular, graduate-level meteorology courses numbered 5000 or above, which must be passed with a grade of B or better, consisting of:
 - METR 5004: Fundamentals of Atmospheric Science
 - METR 5113: Advanced Atmospheric Dynamics I
 - METR 5413: Advanced Synoptic Meteorology
 - 2 METR electives (total of 6 credit hours, METR 5990 cannot be used)
- 4 credit hours of METR 5980: Research for Master's Thesis (no more than 4 hours may be applied towards the degree)
- A minimum of 1 credit hour METR 6970: Seminar (may be repeated for up to 4 credit hours)
- The remaining 9 credit hours can be fulfilled by additional METR graduate-credit electives, graduate-credit courses from other departments, or METR 5990: Independent Study (a maximum of 6 credit hours of METR 5990 is allowed)
- Satisfactorily defend the Master's Thesis

A modification to the MS Coursework Requirement for a student may be approved by the Graduate Studies Committee of the SoM (GSC) and forwarded to the Graduate College for final approval. GSC approval is granted upon receiving a vote of approval by a simple majority of all elected GSC members who are regular faculty members of the SoM. The vote of approval will be conducted by a secret ballot box.

2.5.b. Non-Thesis Master of Science in Meteorology

- 32 Graduate Credit Hours including:
- 19 credit hours of regular, graduate-level meteorology lecture courses numbered 5000 or above, which must be passed with a grade of B or better, consisting of:
 - METR 5004: Fundamentals of Atmospheric Science
 - METR 5113: Advanced Atmospheric Dynamics I
 - METR 5413: Advanced Synoptic Meteorology
 - 3 METR electives (total of 9 credit hours, METR 5990 cannot be used)
- A minimum of 1 credit hour METR 6970: Seminar (may be repeated for up to 4 credit hours)
- The remaining 12 credit hours can be fulfilled by additional METR graduate-credit electives, graduate-credit courses from other departments, or METR 5990: Independent Study (a maximum of 6 credit hours of METR 5990 is allowed)
- Pass the comprehensive exam particular to the Master of Science in Meteorology (see 2.7 for details).

A modification to the MS Coursework Requirement for a student may be approved by the Graduate Studies Committee of the SoM (GSC) and forwarded to the Graduate College for final approval. GSC approval is granted upon receiving a vote of approval by a simple majority of all elected GSC members who are regular faculty members of the SoM. The vote of approval will be conducted by a secret ballot box.

³ Approval of New Degree Requirements by OU Regents, June 2013

2.5.c. SoM Degree requirements – PhD in meteorology⁴

A total of 90 graduate credit hours are required, subject to the following:

A minimum of 34 credit hours of letter-graded, regular, graduate-level meteorology courses numbered 5000 or above (METR 5990 cannot be used). These hours may be OU METR credit or transfer credit from another university. The following courses must be included and must be passed with a grade of B or better:

- METR 5004 Fundamentals of Atmospheric Science
- METR 5113 Advanced Atmospheric Dynamics I
- METR 5413 Advanced Synoptic Meteorology
- METR 5223 Atmospheric Radiation
- METR 5233 Cloud and Precipitation Physics
- Any of these five courses may be replaced by transfer course with equivalent course content as indicated on the advisory conference report.
- METR 5004 may be waived at the discretion of the advisory committee and graduate liaison
- At least 1 credit hour of METR 6970: Seminar every academic year after admission into the PhD program
- Transfer credits from M.S. degree:
 - A total of up to 44 credit hours from a completed master's degree and additional graduate course work may be approved for transfer credit. .
 - Only 4 thesis research (5980) credits can be transferred from a M.S. meteorology degree (the number required for the degree)
- Enrollment in METR 6980: Research for Doctor's Dissertation:
 - After the first semester of enrolling in METR 6980, continuous enrollment of at least 2 hours of METR 6980 each semester (excluding summer sessions) must be maintained until the doctoral degree is completed. Enrollment in the summer session is required only if (1) the degree is conferred in the summer session, or (2) work is being done on the dissertation.
- S/U graded coursework restrictions:
 - No more than one-half of the credits for OU coursework for a doctoral degree, excluding research for the dissertation (METR 6980), may be S/U-graded coursework; and no more than one-half of the overall coursework (OU credit and transfer credit, combined), excluding credits for METR 6980, may be S/U-graded coursework.
- Ph. D. Exams:
 - Satisfactory completion of the written and oral portion of the School of Meteorology's General Examination.
 - Satisfactory dissertation defense

A plan for the completion of the required and elective PhD course work must be indicated in the student's Report of the Advisory Conference, or its amendments.

⁴ Proposed 2017 PhD requirements, approved by Graduate Council 12/7/2016, pending regents approval

2.6. Definition of SoM PhD Tracks and Related Admission Practices

It is SoM policy that all accepted applicants without an MS degree are initially admitted into the SoM MS program. However, students can transfer into the PhD program before completing the MS degree. The policies for this Direct-Track PhD and the MS-track options are further described in this section.

Definition of PhD tracks:

There are three different tracks by which students can obtain a PhD in Meteorology at OU:

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| Direct Track: | Student is admitted into the PhD program before completing an SoM MS degree. However, students still have the option to receive a non-thesis MS degree from OU if they (i) successfully pass the PhD General Examination ⁵ and (ii) submit the Program of Graduate Work Form and Admission to Candidacy Form for the MS degree |
| SoM MS Track: | Student has completed the SoM MS degree and enters into the PhD program. |
| External MS Track: | Student enters the PhD program after completing an MS degree outside the School of Meteorology. |

Students without an MS degree that are interested in pursuing a PhD, should become familiar with the requirements for the Direct Track and SoM MS Track described in the following, and are encouraged to discuss these options with the GAC during the application process and with their adviser.

Admission Practices for the PhD tracks:

Direct-Track students can be admitted into the PhD program typically during or shortly after their third semester before completing the SoM MS degree provided this degree change is approved by the GAO. The GAO approval is based on the following criteria:

1. Student completed the 16 credit hours fulfilling the METR lecture course requirements for the MS in Meteorology (described in Chapter 2) and received a grade of A in at least 2 of the 5 courses, and
2. Student identified a research adviser who commits in writing to support the student as GRA (dependent on continued satisfactory progress and pending availability of funds) or will serve as an adviser for students on graduate fellowships, and
3. Student identified two additional members of the PhD committee, and
4. Student developed a 5-10 page proposal for his/her PhD research, which is positively reviewed by the research adviser and the 2 additional members of the PhD committee. As written documentation of this review, the PhD Direct-Track Application Form is filled out and signed by the three committee members. A copy of the signed form must be presented to the GAO. The GAO will retain the signed copy in the student's SoM folder.

⁵ If the PhD General Examination is failed a student has the option to submit a degree request and to complete a thesis or non-thesis M.S. degree in Meteorology.

SoM MS-Track students are admitted into the PhD program by the GAO if the following criteria are fulfilled:

1. Student has completed an MS degree at SoM or is on track to complete the MS degree at SoM, and
2. Student received a grade of A in at least 2 of the 5 courses fulfilling the lecture course requirements for the MS in Meteorology (described in Chapter 2.5.a), and
3. Student identified a research adviser who commits to support the student as GRA (dependent on continued satisfactory progress and pending availability of funds) or will serve as an adviser for students on graduate fellowships. In exceptional cases, such as an adviser who has funding pending with a strong likelihood of success or the student has an outstanding thesis and strong academic record, TA funding is also acceptable, and
4. Student receives at least two very favorable written endorsements from his/her MS committee members. All MS committee members will be asked to submit a written recommendation to the GAO. The endorsements should include assessments of the applicant's preparation for the SoM PhD program and his/her ability to conduct independent research.

External MS-Track students are admitted into the PhD program by the GAO if the following criteria are fulfilled:

1. Student's application for graduate study in the SoM is favorably reviewed by the SoM GAC. This includes that the application for admission is submitted to the Graduate College of the University of Oklahoma and forwarded to the SoM for approval, and
2. Student identified a research adviser who commits to support the student as GRA (dependent on continued satisfactory progress and pending availability of funds) or will serve as an adviser for students on graduate fellowships. In exceptional cases, such as an adviser who has funding pending or the student comes with an extremely strong background, TA funding is also acceptable, and
3. Student has three or more letters of reference. At least two of these should be from his/her MS institution. All should indicate good potential for success as a PhD student, and
4. MS record includes courses that fulfill the SoM core course requirement for the MS in Meteorology (described in Chapter 2.5.a) and/or indicates that student will be able to successfully complete this coursework requirement in a timely manner. Applicable transfer credit will be identified by the student's PhD committee during the Advisory Conference and indicated on the Advisory Conference Report. Students with a MS degree in Meteorology or Atmospheric Sciences will typically not be required to take METR 5004 "Fundamentals of Atmospheric Sciences" regardless of whether or not an equivalent course was offered in the department that granted their MS degree.

2.7. School of Meteorology Comprehensive Exam Policy⁶

The Comprehensive Examination is required only for the Non-Thesis Master of Science in Meteorology (Non-thesis M.S.). Non-thesis M.S. students are required to write a report. The report may summarize original research or may be a critical review of the literature. The Comprehensive Examination consists two parts: 1) evaluation of the report by the student's Examining Committee, and 2) a subsequent oral exam by the Examining Committee covering both the report and all fields studied by the student for the degree, in compliance with the Graduate College stipulation that the Comprehensive Examination should cover all work offered for the degree (fields, not courses).

A student wishing to pursue a Non-thesis M.S. must have the request approved by a vote of the Graduate Studies Committee of the School of Meteorology.

According to the rules of the Graduate College, the Examining Committee for a Comprehensive Exam consists of "no fewer than three persons". Also, the composition of the M.S. committee should be consistent with the "Agreement Between the Graduate College and the School of Meteorology on Adjunct/Affiliate Faculty Supervision of Graduate Students". According to this agreement, regular SoM faculty members cannot be in a minority on the M.S. committee. The Examining Committee is nominated to the Graduate College on the Admission to Candidacy Form. The Graduate Liaison of the School of Meteorology (who approves the Admission to Candidacy Form) has ultimate authority within the School of Meteorology in approving the members of the Examining Committee. One of the members will be nominated to serve as Chair of the Examining Committee. It is possible that this Examining Committee could be distinct from any prior Thesis Committee that had been registered with the Graduate College, or that had been provisionally formed.

The student, with advice and consent of the Examining Committee, will choose and provide an outline of an acceptable topic for the report. It is the responsibility of the Examining Committee, led by the Chair of the Examining Committee, to define for the student the acceptable standards for the report.

The student passes the Comprehensive Examination if the Committee judges that the report is of acceptable quality and questions are answered satisfactorily in the oral exam. The questions in the oral exam will be drawn from the fields that were covered in the student's particular degree program, including, for example, radar meteorology, cloud physics, atmospheric dynamics, synoptic meteorology, numerical weather prediction, climatology, climate change, boundary layer meteorology, radiation, objective analysis, data assimilation, statistics, tropical meteorology, mesoscale meteorology, turbulence and computational fluid dynamics. Normally the committee will choose topics from a reasonable sub-set of these fields.

The student has the responsibility for submitting the report to the individual Examining Committee members at a mutually agreeable time prior to the time of the oral exam, normally a minimum of two weeks. The student will bring the "Authority Report Form of the Comprehensive Examination/Thesis Defense" to the Chair of the Examining Committee at, or before, the time of the oral Exam. This form lists a last date for the exam, which will usually be the "Final Day for Comprehensive Exam" listed in the class schedule. Equally important is the date one week after that, which is the date the "Authority Report Form of the Comprehensive Examination/Thesis Defense" is due in the Graduate College. The Chair of the Examining Committee has the responsibility of obtaining the signatures from the Examining Committee members before the deadline for filing the report. The Chair of the Examining Committee will either return the completed form directly to the Graduate College, or to the student, prior to the deadline.

⁶ Approved by the School of Meteorology Faculty at the December 7, 2006 School of Meteorology Faculty meeting.

The Graduate College defines other rules for a Comprehensive exam, among which are rules about repeating a Comprehensive Exam that has been failed.

2.8. Best Practices for the Ph.D. Advisory Conference in the School of Meteorology⁷

It is the responsibility of both the PhD committee under the leadership of its Chair and the student to ensure that the committee is kept informed of and provide feedback on the important milestones in a student's progress typically beginning with the selection of a PhD topic and the student's preliminary thoughts on research goals, approach and the relationship of the proposed work to previous findings in the literature. Feedback on a student's research plan can be done through committee meetings, seminars and one-on-meetings with the student. An important formal milestone for PhD students is the Advisory Conference.

As discussed in the [OU Graduate College Bulletin](#), the purpose of the Advisory Conference is to aid the student in developing an overall plan for attaining a doctoral degree. The student and all committee members must attend the Advisory Conference. After the Advisory Conference, the student will submit the signed, completed *Advisory Conference Report* form (ACR) to the Graduate College. The ACR form can be downloaded at <http://www.ou.edu/content/gradweb/aud/current/doctoral/Norman.html>.

This document highlights important, best practices for the Advisory Conference in SoM, but students are strongly advised to also check the website of the [OU Graduate College](#) for related information, forms and deadlines.

- The ACR lists all coursework to be applied toward the doctoral degree, identifies all members of the student's Advisory Conference committee, and requires original signatures from the student, all committee members, and the graduate liaison of the student's academic unit.
- The ACR must be submitted to the Graduate College no later than one semester before the student plans to take the General Examination. Qualified graduate assistants who receive a Graduate College tuition waiver will need to submit this form earlier to meet [waiver eligibility requirements](#). **The SoM recommends that students hold their Advisory Conference no later than 12 months after first enrollment in the Ph.D. program, but ideally within the first semester of admission.**
- Before scheduling the Advisory Conference, students should form their committee in consultation with their adviser taking into account the rules about committee membership that are described in **Error! Reference source not found.**
- The student will then contact faculty members and ask them if they are willing to serve on the Ph.D. committee. When contacting committee members, the student should shortly describe his/her planned Ph.D. research. This can be in written form in a paragraph similar to a seminar abstract, by inviting the committee members to attend a departmental seminar that outlines the student's research plans, and/or in form of a meeting of the student with individual committee members.
- Once a student has formed the committee he/she will schedule the Advisory Conference at a time that all committee members can attend. Typically, Advisory Conferences in SoM are no more than 30-60 min long.

⁷ Approved by the SoM faculty 05/01/2014

- Before the Advisory Conference commences, students should have the ACR prepared with all courses listed that they have already taken. They should bring copies of the ACR to the meeting, and also have a digital version on hand, which can be edited during the meeting to reflect the recommendations of the committee members.
- At the beginning of the Advisory Conference, the student should start with a short, 10-20 min long, presentation, which outlines the major research questions and shortly describes the methodologies used in the dissertation. The committee will then discuss the research plan and identify coursework that is critical for the student's research plan as well as courses that are needed to fulfill the SoM Ph.D. requirements.
- Starting from Fall 2013, SoM Ph.D. students need to enroll in at least 1 credit hour of METR 6970 "Seminar" (see also sections 1 and 2.11) in every academic year after admission into the PhD program. It is important that the ACR form lists how the Ph.D. student will fulfill this SoM seminar requirement. The semesters in which the student is required to enroll in METR 6970 should be listed in the section "REQUIRED COURSEWORK TAKEN WHILE ENROLLED IN OU DOCTORAL PROGRAM" on the ACR form.
- Before submitting the signed ACR to the Graduate College, the student should submit a copy of the final, signed ACR to the Coordinator for Academic Student Services in SoM, who will keep the copy in the student's folder. This is important, in case the form gets lost before it is filed in the OU Graduate College records.

2.9. School of Meteorology Policy For The General Examination For a Ph.D. in Meteorology⁸

As stipulated by the Graduate College, passing a "General Examination" consisting of a written and oral portion is a degree requirement for receiving a Ph.D. from the University of Oklahoma. As described in the [OU Graduate College Bulletin](#) the Graduate College defines many procedures about the General Examination, which the student and the student's Doctoral Committee should recognize and heed. The following text codifies additional School of Meteorology (SoM, the "academic unit") rules pertaining to the "General Examination for a Ph.D. in Meteorology."

The Graduate College states: "The General Examination consists of a written and oral portion. It is intended to test the student's mastery of a number of related fields as well as the student's capacity for synthesis, sound generalization and critical ability". To this end, the following is required:

1. The student's Doctoral Committee will define a task of critical review and analysis of a topic in meteorology. The task may be relevant to the student's specialty within meteorology, but should not be about material that is planned to be directly incorporated into the student's Dissertation. The task should be sufficiently challenging that the written report stemming from it would allow indication of (i) a breadth of knowledge of graduate-level meteorology, (ii) an intellectual capacity to proceed with independent research at the doctoral level and (iii) written communication skills necessary for the research to culminate in the production of a Dissertation.
2. After the student's "Application for General Examination" has been approved by the Graduate Dean, the Doctoral Committee will inform the student -- in writing -- of the examination task, and set a time limit by which a written report fulfilling the task must be returned to the committee. The report serves as the written portion of the General Examination.
3. The definition of the task and the evaluation criteria that are given to the student must be in writing, and a copy, signed by all members of the student's Doctoral Committee, should be submitted by the Chair of the Doctoral Committee to the SoM Coordinator for Academic Student Services for record keeping.
4. The School of Meteorology recommends the time limit for completing the written report to be approximately one month after the task is revealed to the student. Other time limits could be used, but should be roughly commensurate with expected half-time labor by the student toward completion of the task. As mandated by the Graduate College, "The student must complete the General Examination during the semester in which the authority is given." and "Both the written and oral portions should be taken during the same semester."
5. The School of Meteorology recommends that the student be allowed full access to all written resources for completion of the written report: all books, journals and online resources.
6. However, the student is not allowed to receive personal tutoring from any source, except perhaps clarification of the task from the Doctoral Committee (the Committee will decide based on the wording of the original task and of the background knowledge expected of the student whether such clarification is warranted).
7. Any clarification as described in Point 6 should be viewed as an amendment to the original definition of the task. As such, the clarification should be communicated to the student in writing by the Chair of the Doctoral Committee who should also send a copy to the SoM Coordinator for Academic Student Services for record keeping.
8. Once the student submits the written report to the PhD committee members, he/she should also send a copy to the SoM Coordinator for Academic Student Services for record keeping.
9. After the submission of the written report, and prior to the oral Exam, the committee members

⁸ Approved by the SoM faculty 05/02/2013

may provide feedback to the student about the written report and the upcoming oral Exam. During that time, the student is free to discuss the task with any source. A written record of the feedback given to the student from the committee members must be provided by the Chair of the Doctoral Committee to the SoM Coordinator for Academic Student Services for record keeping.

10. Before the Oral Examination takes place, the PhD committee assesses the written report and decides whether or not it is satisfactorily completed to proceed with the Oral Examination. If the written report is deemed not satisfactory, the student may not proceed to the oral portion and the General Examination is considered failed. If the written report is marginal but not failing the results can be held in abeyance as described under bullet 14. The Chair of the Doctoral Committee must inform the student and the SoM Coordinator for Academic Student Services about the outcome of the assessment of the written report.
11. The School of Meteorology recommends that the Oral Examination should typically occur at least two weeks after submission of the written report but no later than the last day of class of the current semester.
12. The Oral Examination procedure should be akin to the procedure traditionally used for a defense of a Dissertation. That is, the student will be asked to present an explication and defense of the written report, accompanied by thorough questioning confirming the student's mastery of a number of related fields as well as the student's capacity for synthesis, sound generalization and critical ability.
13. Only the student and student's Doctoral Committee will be present for the Oral Examination.
14. Following the OU Graduate College rules, if a student's performance in either the written or oral portion of the General Examination is marginal, but not failing, and the PhD committee wishes the student to do further reading, coursework, investigations, etc., the results of the examination can be held in abeyance with approval of the Graduate Dean. The PhD committee has to submit a request for an abeyance to the Graduate Dean, which should state a specific time period (usually limited to one month, but no longer than one semester) in which the student has to complete the extra work. The Chair of the Doctoral Committee must submit a copy of the abeyance request to the SoM Coordinator for Academic Student Services for record keeping.
15. Within one week of having administered the General Examination, the Chair of the Doctoral Committee will provide a photocopy of the official "Report of General Examination" to the SoM Coordinator for Academic Student Services for record keeping.
16. The Chair of the Graduate Studies Committee will receive monthly reports from the SoM Coordinator for Academic Student Services about the status and topic of ongoing and completed General Examinations and will announce the results during executive session of the next faculty meeting.

2.10. Best Practices for the Ph.D. General Examination in the School of Meteorology⁹

Section 2.9 provides information about School of Meteorology and OU Graduate College policies for the “General Examination (GE)”. In the following, best practices for the written and oral portion of the GE in SoM are summarized.

Timing of the GE:

- The School of Meteorology recommends that students take their GE as soon as possible after the advisory conference. Since the timing depends in large part on how much of the required coursework a student has completed, there will likely be much variation from student to student. However, ideally, the student can take their GE within a year of the advisory conference.

GE topics:

- A document with hard copies of GE topics given to SoM Ph.D. students over at least the last 2 years will be kept in the office of the Coordinator for Academic Student Services in SoM.
- SoM graduate faculty members may review the document and make a copy of this document for their own use. The copy should not be distributed to students or other faculty members.
- Students can review the document in the office of the Coordinator for Academic Student Services in SoM but are not allowed to make copies of the document.
- A digital version of this document will not become available and the document should never be distributed electronically.

Written GE report:

- Typically, the GE written report is formatted following the [AMS author’s guide](#) for manuscript submissions.
- The written report should include a title page with an informative title and name of the author. It should also include an abstract that is no longer than 250 words and printed on a separate page.
- The report should be typed using 12 point font or larger. All text must be double-spaced and the page margins should all be 1 inch.
- The report, not counting the title page, abstract, list of references and pages with figures, should be no longer than 25 pages.
- Alternatively, students may be tasked to prepare their GE written report in NSF proposal format. In that case, students typically follow the [NSF proposal guidelines](#) and submit a single-spaced report, similar to an NSF project description, which does not exceed 20 pages including all figures. The list of references should not count towards the page limit and student may also be asked to additionally submit a 1-page proposal summary.
- The specific formatting requirements for the GE report should be clearly described in the GE student’s assignment.
- Copies of reports submitted by students will be kept in a student’s folder in the SoM office.
- Students retain their authorship rights on the GE reports and committee members should not share the reports without the consent of the student and his/her committee chair.

⁹ Approved by the SoM faculty 05/01/2014

Oral portion of the GE:

- The oral portion of the GE is not public, and only the student and Ph.D. committee members can be present.
- The oral portion of the GE starts with a presentation given by the student that documents the work completed as part of the GE and summarizes the findings of the written GE report. The presentation should typically not be longer than 30 min (not counting possible interruptions due to questions by committee members).
- Following the student's presentation the Ph.D. committee will assess the student's mastery in his/her field of research and his/her capacity to synthesize, generalize, and critically evaluate research findings. All committee members are allowed to ask questions. Oral GEs will normally be completed within 2 hours.

2.11. Implementation of SoM Seminar Requirements for MS and PhD Students¹⁰

Starting from Fall 2013, the School of Meteorology (SoM) will offer the following sections for the seminar course METR 6970:

- 1) METR 6970-001 National Weather Center Colloquium
- 2) METR 6970-002 Radar and Remote Sensing Seminar Series
- 3) METR 6970-003 Boundary Layer, Urban Meteorology and Land-Surface Processes Seminar Series
- 4) METR 6970-004 Convective Meteorology Seminar Series
- 5) METR 6970-005 Weather and Climate Systems Seminar Series

Each of these sections will have a regular or adjunct faculty member assigned as instructor of record. The instructors will be responsible for scheduling the talks given in the seminars, whereby speakers will typically be a mix of students enrolled in the seminar section, faculty members, members from the NWC scientific community, and outside speakers. The instructors will assure that all students enrolled in the section will be accommodated and will also assign the grade for the seminar class. Students enrolled in a section are expected to attend all seminars presented during the semester that they are enrolled in. **Not all seminar presentations are expected to be of the same length and format.** Seminars of beginning PhD students can be shorter and focus on literature review and/or provide an update on the student's progress with his/her research. A nominal length of 20min is recommended for all but the final MS or PhD presentations.

Students will have to decide with their advisers in which sections they should enroll and **coordinate their seminar date at the beginning of the semester with the instructor of record.** This will apply to all students enrolled in the various sections, but instructors are encouraged to work with students that are graduating the same semester to find a seminar date that best fit the students' needs. Accommodating all graduating students during the last couple of weeks of the semester will however not be possible and students and advisers should move away from planning of having the seminar the same week as the thesis or dissertation defense.

MS and PhD students will enroll in the specialty seminars (METR 6970 002-005) for their final (MS) and annual (PhD) presentations. However, PhD students are encouraged to give their final seminar (in their last year of their PhD studies) in the NWC colloquium (METR 6970-001).

¹⁰ Approved by SoM faculty, April 04, 2013

2.12. Assistantships and Fellowships

Most SoM graduate students are funded through teaching assistantships (provided by the University) or research assistantships (provided by faculty grants, funds from affiliated institutions, or fellowships). The funding consists of a [tuition waiver](#) and a stipend, students are also responsible for paying any University fees not covered by the tuition waiver. More information can be found here(http://www.ou.edu/bursar/tuition_fees.html).. Tuition waivers are handled by OU Graduate College and students should be aware the Graduate College [tuition waiver policies](#). As part of these policies, students usually must be enrolled in five (5) or more credit hours and hold a graduate assistantship appointment of at least .50 FTE or twenty (20) hours per week for the entire semester to qualify for a tuition waiver during a fall or spring semester. Students with a spring .50 GA appointment qualify for applicable summer waivers when enrolled in summer. During a student’s last spring or fall semester, exceptions to the 5-credit hour enrollment minimum may be possible if less than 5 credit hours are required to complete the degree during that semester. Students should contact the Graduate College to inquire about such exceptions.

With the exception of fellowship recipients (whose stipends are determined by the fellowship program), all graduate students’ stipends whether from TA or RA appointments, are set at [fixed stipend rates](#).

SoM GRA/GTA Stipends

| | Current Stipends 2015-2016 | | New Stipends beginning Oct 1, 2016 (5% increase) | | Stipends 2017-2018 (begin Aug 16, 2017) (3% increase) | | Stipends 2018-2019 (begin Aug 16, 2018) (3% increase) | | Stipends 2019-2020 (begin Aug 16, 2019) (3% increase) | |
|--------------------------------------------------------------------------------|-------------------------------|-------------|-----------------------------------------------------|-------------|-------------------------------------------------------------|-------------|-------------------------------------------------------------|-------------|-------------------------------------------------------------|-------------|
| | Monthly | 12-month | Monthly | 12-month | Monthly | 12-month | Monthly | 12-month | Monthly | 12-month |
| Level 1 Entry to MS or PhD | \$1,982.40 | \$23,788.80 | \$2,081.52 | \$24,978.24 | \$2,143.97 | \$25,727.59 | \$2,208.28 | \$26,499.41 | \$2,274.53 | \$27,294.40 |
| Level 2 Completed MS or completed 30 credit hours towards a PhD in Meteorology | \$2,144.97 | \$25,739.64 | \$2,252.22 | \$27,026.62 | \$2,319.79 | \$27,837.42 | \$2,389.38 | \$28,672.54 | \$2,461.06 | \$29,532.72 |
| Level 3 Completed the SoM PhD coursework requirement | \$2,208.07 | \$26,496.84 | \$2,318.47 | \$27,821.68 | \$2,388.03 | \$28,656.33 | \$2,459.67 | \$29,516.02 | \$2,533.46 | \$30,401.50 |
| Level 4 Passed the General Exam | \$2,253.12 | \$27,037.44 | \$2,365.78 | \$28,389.31 | \$2,436.75 | \$29,240.99 | \$2,509.85 | \$30,118.22 | \$2,585.15 | \$31,021.77 |

Graduate Assistantships are subject to certain limitations, including enrollment requirements and maximum allowable FTE levels. Students are expected to continue their full-time effort towards completion of their degree throughout the entire academic year. Students will continue to be paid 0.50 FTE in the summer to work on their degree and to fulfill their assigned responsibilities as graduate research or teaching assistants. In rare cases, a student may receive an additional 0.25 FTE during a semester (including the summer term¹¹) for additional duties as graduate research or teaching assistant, which contribute to his/her education and professional development, and aid in successful completion of his/her degree. In the fall and spring semesters, any appointment higher than 0.50 FTE requires the approval of the Graduate College.

When offered a position we expect it to continue but all decisions about renewals depend on academic progress, job performance and budgetary constraints.

¹¹ In compliance with federal immigration regulations and OU policy, International students are allowed to work up to 39 hours a week during the summer but can only be paid 0.5 FTE during the fall and spring term.

The [Graduate Assistant Handbook](#) describes in detail the policies that govern your role as a graduate student employee, as well as many university resources available to graduate assistants. We urge you to read this Handbook and, should you accept an offer, we request that you become familiar with your rights and obligations as a GRA at OU.

2.13. SoM Administration and Committees

2.13.a. SoM Director, Faculty and Staff

Dr. [David Parsons](#) serves as the director of the School of Meteorology since July 2010. Before joining the OU he spent over twenty years at the National Center in Atmospheric Research in Boulder, Colorado with sabbaticals at U of Reading, Meteo France and the UN system with the World Meteorological Organization.

The School of Meteorology is most well known for national leadership in the areas of severe storms, mesoscale dynamics, convective-scale modeling and radar studies. However, SoM faculty research areas go beyond severe weather research, covering such areas as boundary layer and urban meteorology, climate, data assimilation, tropical meteorology, lightning, cloud physics, dynamics, and even polar studies. The [SoM faculty website](#) provides more details on the research areas and also contact information for all faculty members. Information about current [Graduate Students](#) is also available.

The [SoM staff website](#) provides contact information about the wonderful SoM staff. [Christie Upchurch](#) is the Coordinator for Academic Student Services and the main point of contact for students with questions related to the SoM graduate program.

2.13.b. SoM Graduate Studies Committee (GSC)

Any revisions of the SoM graduate curriculum are handled by the SoM GSC. The GSC is also in charge of keeping this Graduate Student Handbook up to date, and serves a point of contact for students who have concerns or suggestions for future improvements of the SoM graduate curriculum and SoM policies for the graduate program as described in this document. Students with questions about their individual educational experience at SoM, their M.S. or Ph.D. committee etc. should also contact the GSC. The GSC consists for 5 voting members (5 regular SoM faculty members) and 5 non-voting members:

Voting Members (as of Fall 2016):

| | |
|----------------|-----------------------------------------------------------------------------------------------------------------------|
| Philip Chilson | (Chair) Professor, NWC 4618, phone:325-5095 email: chilson@ou.edu |
| Petra Klein | Professor, NWC 5339, phone: 325-1631, email: pkklein@ou.edu |
| Steven Cavallo | Assistant Professor, NWC 5349, phone: 325-2439, email: cavallo@ou.edu |
| Jeffrey Basara | Associate Professor, NWC 5238, phone: 325-1760, email: jbasara@ou.edu |
| Elinor Martin | Assistant Professor, NWC 5642, phone: 325-7392, email: Elinor.Martin@ou.edu |

Non-Voting Members (as of Fall 2013):

| | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| David Parsons | (SoM director, ex-officio) Professor, NWC 5919, phone: 325-8565, email: dparsons@ou.edu |
| Brian Fiedler | (Graduate Liaison,) Professor, NWC 5636, phone: 325-2860 email: bfiedler@ou.edu |
| Addison Alford | (student representative) email: addisonalford@ou.edu |
| Harold Brooks | (Adjunct/Affiliate representative) Team Leader/Meteorologist National Severe Storms Lab, NWC, phone: 325-6083, email: Harold.Brooks@noaa.gov |
| Christie Upchurch | (Coordinator Academic Student Services), NWC 5913, phone: 325-6571, email: cupchurch@ou.edu |

2.13.c. SoM Graduate Admissions Committee (GAC)

The GAC is formed each academic year at the first meeting of the SoM Graduate Studies Committee (GSC). The GAC is responsible for the evaluation of graduate admission applications and communication with the applicants regarding the status of their applications. The GAC is chaired by the graduate admissions officer (GAO) and consists of at least two **regular SOM faculty** members elected by the GSC. The SoM has decided that its Graduate Liaison will also serve as GAO. The staff person handling graduate admissions, normally the [Coordinator for Academic Student Services](#), serves as a staff representative on the committee.

Members (as of Fall 2016):

| | |
|----------------|---------------------------------------------------------------------------------------------------------------------|
| David Parsons | (SoM Director) Professor, NWC 5919, phone: 325-8565, email: dparsons@ou.edu |
| Jeffrey Basara | Associate Professor, NWC 5238, phone: 325-1760, email: jbasara@ou.edu |
| Jason Furtado | Assistant Professor, NWC 5240, phone: 325-1391, email: jfurtado@ou.edu |

3. STUDENT ORGANIZATIONS

The School of Meteorology has a variety of student organizations:

- [Oklahoma Weather Lab](#)
- [OU Scan](#)
- [Student Affairs Committee](#)

Information on all of the student organizations can be found [here](#).