



GRADUATE PROGRAM REGULATIONS

Fall 2019

I. Introduction and General Policies

The Earth, Atmospheric, and Planetary Sciences (EAPS) Department offers graduate programs leading to the Master of Science and Doctor of Philosophy degrees in atmospheric science, planetary science, and solid-earth geosciences. A majority of the research conducted within EAPS can be categorized by four research foci: Atmospheric Sciences; Environmental Geoscience; Geology and Geophysics; and Planetary Sciences. A description of each of these areas can be found on the EAPS website. These programs are designed to develop a broad understanding of physical, chemical, and biological processes occurring in the Earth's atmosphere, oceans, surface and subsurface. Specialization in a specific area is provided by advanced courses, independent study, and thesis research. Owing to the inherent interdisciplinary nature of the EAPS Department's programs, students enter graduate study with a variety of academic backgrounds. It is recognized that this broad variation requires the development of individualized programs tailored to meet the needs of a specific student.

General regulations and requirements established by the Purdue University Graduate School and published Graduate School *Policies and Procedures Manual for Administering Graduate Student Programs* apply to all graduate students in these programs.

This document is a statement of internal regulations and policies applicable to the graduate programs offered by the Department. These regulations and policies have been adopted to provide a necessary degree of development of programs that reflect the differing backgrounds and specializations among students. Concurrently, these rules allow great flexibility for the development of programs that reflect the differing backgrounds and specializations among students. The regulations and policies are intended to insure a high level of performance by all individuals granted advanced degrees, thus maintaining the overall quality of the programs.

II. Progress Toward Completion of Degree

1. The Graduate Secretary will provide a copy of the semester checklist to each student in their Graduate Handbook. The checklist is a list of goals and regulations each student will be expected to achieve. This checklist is useful for students to gauge their progress toward completion of their degree in a timely manner. It is the student's responsibility to see that each of the goals is met by the end of the semester in which they are listed.
2. Within the first two weeks of the beginning of each fall semester, all graduate students will complete an Individual Development Plan (IDP) to help maintain open lines of communication with their advisor. Except for the last page, the IDP should be treated as confidential between the student and their advisor. The last page should be completed and turned into the Graduate Secretary and may be reviewed by the graduate committee. The IDP can be found at: <https://www.science.purdue.edu/graduate/idp.html>
3. The Department requires all MS and PhD students to complete GRAD 61200 (Responsible Conduct in Research) with a passing grade within their first two years of graduate study.
4. Students not fulfilling each requirement in the semester they are listed, must petition the Graduate Committee for continuation in the program.

III. Financial Assistance

A. General

1. The application for admission also serves as the application for financial assistance. Financial aid is usually automatically considered during review of the applicant's file.
2. Support normally is offered on either an academic- or calendar-year basis, depending on the type of position. Support is normally continued from semester to semester based on satisfactory academic progress in your program of study, satisfactory performance in your assigned Research Assistantship (RA) or Teaching Assistantship (TA) duties, and the availability of funds.
3. Most RA or TA appointments are one-quarter FTE (Full-Time Equivalent) or one-half FTE appointments. A one-quarter-time TA or RA appointment includes 10 hours per week of teaching- or research-related duties. A one-half-time TA or RA appointment includes 20 hours per week of teaching- or research-related duties.
4. Graduate students normally will not be allowed any combination of support totaling more than three-quarter FTE, particularly if any part of the appointment includes teaching duties. Exceptions allowing 1.0 FTE during the summer session may be made in unusual circumstances.
5. To be eligible to hold a graduate staff appointment during any session, graduate students must be registered for at least 3 credit hours of graduate-level course and/or research work during the entire appointment period. A normal, full-time load for a graduate student is a minimum of

8 to a maximum of 18 credit hours per semester; a maximum of 15 credits hours for those who are awarded a TA. A minimum of 6 to a maximum of 9 credits is considered full-time for Summer.

B. Teaching Assistantships

1. A student awarded a TA must be in residence at least one week prior to the start of classes. Teaching Assistants must participate in a TA Orientation short course, coordinate with the faculty member responsible for the course in which they are assisting, and make necessary preparations to begin their teaching duties.
2. A student for the Master of Science degree can serve as a TA for a maximum of four (4) semesters of one-half time FTE Fall or Spring semester appointments. A student in the Doctoral degree program can serve as a TA for a maximum of seven (7) semesters of one-half time FTE Fall or Spring semester appointments. Semester limits on TA support for students who advance from the Department's Master's program directly into the Doctoral program without receiving a Master's degree will be determined on a case-by-case basis.
3. Renewal of TA support or granting of exceptions to the maximum limits will be determined on a competitive process based on performance in TA responsibilities and research, the availability of funds and needs of the Department, and on the progress of the student toward timely completion of the degree objectives.
4. A graduate student whose cumulative GPA falls below 3.0/4.0 for two consecutive semesters will not be allowed to continue as a TA. He/she may be re-appointed as a TA once a cumulative GPA of 3.0/4.0, or greater, is re-established.
5. PhD candidates are encouraged to have a TA appointment with classroom instruction duties for at least one semester during their graduate program.
6. A few Summer TA positions are available. If you are appointed as a TA for the summer semester, you must be registered for a minimum of three (3) research or class credits.

C. Research Assistantships

1. Research Assistantships are recommended by the Principal Investigator (PI) or Project Director (PD) of a funded research program. Normally, the PI/PD will serve as the RA's Major Professor.
2. RA's are required to carry out research activities as directed by the PI/PD. Enrollment in EAPS 698/699 entails an expectation of reasonable progress in scholarly research with the instructor. These expectations include:
 - a) Conducting independent research with the instructor on the background, motivation, and prior work related to the primary subject of the research project,
 - b) Actively participating in computational, field, or laboratory research at a level consistent with a professional research position,

- c) Following all safety guidelines and expectations associated with the research environment,
- d) Following ethical research practices,
- e) Contributing to the eventual written and oral dissemination of research findings, and
- f) Any optional written and agreed upon specific expectations between the student and instructor for research to be accomplished in a given semester.

By signing up for research credits, the student acknowledges agreement with the expectations set forth by the faculty member. By allowing the student to sign up for research credits, the faculty member acknowledges that if the student's progress is acceptable with regard to expectations articulated for the semester, the student will receive a satisfactory grade for the course.

- 3. If you are appointed as a RA for the summer semester, you must be registered for a minimum of three research credits.
- 4. Any student (whether on appointment or not) must be registered for research during each session when doing research utilizing faculty direction or consultation and/or requiring the use of University facilities. Research includes literature reviews and thesis writing. A student's research registration should be roughly proportional to the amount of time devoted to research activities.

IV. Major Professor and Advisory Committee

A. General

- 1. At the time of recommendation for admission, the applicant is appointed a temporary advisor. The temporary advisor works with the incoming student during the first semester helping to select initial courses, providing a general orientation on policies and procedures, and assisting in identifying the student's research skills and interests.
- 2. In many cases, a student's temporary advisor will become their Major Professor. By the end of the first year, students should have chosen a Major Professor and committee. If it is determined that a student's interests more closely relate to those of another faculty member, however, the student may request that this latter faculty member serve as his/her Major Professor. A student receiving RA aid should be aware that such a change may require a concurrent change in financial support. Student's choosing to change their Major Professor after their first year must have approval by the Graduate Committee.
- 3. Responsibility for maintaining the overall quality of graduate programs rests ultimately with faculty members who agree to serve as Major Professors and/or as members of the Advisory Committee. The University Graduate School requires that each student's progress be reviewed each semester. Thus, each student must meet formally with the advisory committee at least once each semester. Should a student consistently fail to perform on a level satisfactory to the Advisory Committee, he/she will be asked to discontinue graduate study at Purdue University.

4. The Major Professor and members of the Advisory Committee are formally designated at the time of submission of the Plan of Study [*see Section V(B)1*].

B. The Major Professor:

1. Is selected by mutual agreement between the student and faculty member.
2. Directs the research, serves as thesis/dissertation advisor, and provides academic guidance and counseling.
3. Serves as a member and chair of the student's Advisory Committee.
4. Assists in formulation of, and concurs with, the plan of study filed with the Graduate School.
5. Coordinates the examination process.
6. The Major Professor will have the added responsibility of assuring that the final thesis meets the stylistic requirements adopted by the department and the Graduate School.

C. Advisory Committee

1. The Advisory Committee is selected by mutual agreement between the student, the Major Professor, and members of the faculty who agree to serve, as requested by the student.
2. The Advisory Committee consists of at least three (3) members, one of whom must be either from outside the student's specialty area or external to the EAPS Department. At least 51% need to have regular certification.
3. The functions of the Advisory Committee include:
 - a) advising the student on matters of academic and research interest,
 - b) review and evaluation of the student's progress each semester,
 - c) assisting in preparation of, and concurring with the plan of study,
 - d) review and comment on the writing of the thesis/dissertation,
 - e) notifying the appropriate graduate students of the faculty member's extended absences from campus, so that the students can schedule the necessary examinations or request alternate members to serve on the Examining Committee.

D. Examining Committee

1. The Examining Committee (normally the student's Advisory Committee, although the Dean of the Graduate School and the Department Head may name additional members) consists of at least three (3) members for the MS degree and four (4) members for the PhD Degree, one of whom must be either from outside the student's specialty area or external to the EAPS Department. At least 51% need to have regular certification.

2. The functions of the Examining Committee include:
 - a) review and comment on the writing of the thesis/dissertation,
 - b) making a final recommendation concerning the awarding of the degree
3. For all MS and PhD oral exams (MS thesis defense, PhD oral Preliminary Examination and PhD oral Dissertation Defense), the student shall select one of its members to serve as Chairperson of the oral examination. The student's Major Professor (Chairperson of the Advisory Committee) is not eligible to serve as Chairperson of the oral examination.

V. The Master of Science Program

A. General

1. It is expected that most Master's students will complete the requirements for the degree in one and one-half to two and one-half calendar years. Students with deficiencies in mathematics and/or physical science, or departmental undergraduate core courses may take up to three (3) years to complete their programs.
2. The maximum allowable time for completion of requirements for the Master's degree is four (4) years. Students who do not finish within four years must file a written request with the Graduate Committee to be allowed to continue in the graduate program.
3. At least one-half of the total credit hours used to satisfy degree requirements must be earned in residence on the Purdue campus where the degree is to be granted. At least 30 total credit hours are required.
4. Maximum credit loads (academic course credit and research credit) are established by the University Graduate School. Graduate registration should reflect the student's academic activity as accurately as possible. In fulfilling degree requirements, a normal, full-time load for a graduate student is a minimum of 8 to a maximum of 18 credit hours per semester; a maximum of 15 for those who are awarded a TA. A minimum of 6 to a maximum of 9 credits is considered full-time for Summer. Students holding research assistantships must register for research credit each semester.
5. A student in a Master's program is expected to maintain a minimum cumulative GPA of 3.0/4.0. Failure to do so will result in the student being identified as "LOW" in academic standing by the University Graduate School. Students so identified will not be awarded a degree. A student remaining in "LOW" academic standing for three (3) consecutive semesters will be notified by the EAPS Graduate Committee to terminate their program.
6. All Master's students are required to register for one (1) semester of EAPS 691 (seminar course). Student must attend and write a brief summary of at least seven (7) seminars attended per semester.
7. It is required that each Master's student will present a seminar, based on his/her thesis research, to the faculty, graduate students and other interested individuals.

8. Research *in absentia* is not allowed.
9. For the semester in which the degree is to be awarded, domestic students must be registered for a minimum of one hour of research credit. International students must be registered for a minimum of nine hours of research credit unless excused by the University Graduate School.

B. Specific Requirements

1. *Plan of Study*: Completion of an approved plan of study is required.
 - a) An appropriate plan of study will be drawn up by mutual agreement between the student, their Major Professor, and the Advisory Committee.
 - b) The plan will reflect that a thesis must be prepared and indicate a subject area and/or working title.
 - c) The plan must be prepared by the student and submitted for approval prior to the end of the second (2nd) semester in residence. The approval procedure will be as prescribed by the University Graduate School. Access to the electronic Plan of Study Generator (POSG) is via myPurdue.
 - d) An approved plan of study admits the student to candidacy for the Master of Science degree. To complete an approved plan of study a candidate must complete each course used for fulfilling credit requirements with a letter grade of B or better, and have an overall GPA of 3.0/4.0, or better.
 - e) The minimum number of course credits (excluding thesis research credits, EAPS 698) for the MS degree is 18. The courses should generally be 500-level, or above, but a maximum of six (6) credits at the 300-400 level are allowed. A maximum of six (6) credits of independent study are allowable in the 18 credit minimum. Students must take a minimum of nine (9) credits in the EAPS department.
2. *Thesis*: Submission of an acceptable thesis is mandatory.
 - a) The thesis topic will be determined by mutual agreement between the student and the Major Professor, and approved by the members of the student's Advisory Committee.
 - b) The thesis format will be as follows: [you can access the Thesis/Dissertation Office at: <https://www.purdue.edu/gradschool/research/thesis/index.html>]

University Format Requirements:

Six different format items will be reviewed by the staff in the Library Thesis Format Office: 1) typeface and quality; 2) spacing; 3) margins; 4) page numbering; 5) title page; and 6) abstract. However, these items will no longer be reviewed prior to the request for appointment of the student's final examination committee. Instead, this review will take place at the time the student's thesis or dissertation is deposited at the

library, after all changes and modifications requested by the student's Examining Committee have been made.

Departmental Format Requirements:

The thesis shall consist of a format consistent with a journal article manuscript in one of the following journals and using the format described in the style manual for that journal:

Journal of the Atmospheric Sciences
 Journal of Geophysical Research
 Bulletin of the Geological Society of America

If there is overlap between departmental style specifications and university format requirements, the University requirements **must** be satisfied.

The responsibility for review of the Departmental Format requirements will be assigned to the Chair of the student's Advisory Committee. This individual will have the added responsibility of assuring that the final thesis meets the stylistic requirements adopted by the department.

- c) A PDF of the final thesis/dissertation must be turned into the Major Professor a **minimum** of two weeks prior to thesis/dissertation deposit to conduct an *iThenticate* check. Failure to meet this deadline may affect submission of your thesis/dissertation which may, in turn, delay your graduation date.
3. *Final Examination:* It is required that an oral defense be successfully completed. It will normally be given by the Examining Committee (normally the student's Advisory Committee) during the semester in which the degree is to be awarded. The Department Head may name an additional member to the student's Examining Committee.
- a) Oral Defense
1. The student should have made enough progress towards completion of the thesis so that he/she can provide each member of the Examining Committee with an *acceptable draft copy at least two weeks in advance* of the date of the defense.
 2. The oral defense is recommended to be scheduled so as to occur no later than three (3) weeks prior to the final date for filing of the approved thesis with the Graduate School. The defense will focus on the candidate's research, with particular attention given to the defense of material in the thesis. Members of the Examining Committee may require that changes be made to the thesis before giving final approval.

3. The student is responsible for completing Graduate School Form 8: Request for Appointment of Examining Committee *a minimum of two (2) weeks in advance*. Students should access the Exam Form Generator through myPurdue and select the “Graduate School Plan of Study” link under the “Graduate Students” section on the “Academic” tab. The student’s Major Professor (Chairperson of the Advisory Committee) is not eligible to serve as Chairperson of the oral examination.
- b) Results: Immediately following the oral examination, the candidate's Examining Committee will evaluate his/her total performance record and make one of the following recommendations:
1. Failure, no degree awarded.
 2. Conditional pass: final decision on award of degree held in abeyance until additional work and/or corrections are satisfactorily completed.
 3. Passed, MS degree to be awarded.

VI. The Doctor of Philosophy Program

A. General

1. The PhD program has two phases: *pre-candidacy* and *candidacy*.

Pre-candidacy is a formal plan of study (see section B1), including course work designed to strengthen and expand the student's grasp of fundamental knowledge, particularly in subject areas that are directly relevant to their dissertation subject. Pre-candidacy is also the time when preliminary data is gathered for the development of a dissertation research plan. By no later than the third semester, a **Qualifying Exam** (section B2) will be administered by the student’s Advisory Committee. The Qualifying Exam will cover general competency in the field (coursework) with an emphasis on knowledge that relates to initial research area. Students who fail the qualifying exam may petition for a re-examination, which must occur within one semester and is subject to the discretion of the Advisory Committee. Failure of the qualifying exam can result in dismissal from the program or redesignation to the MS tract if the committee feels it is warranted. A second failure of the Qualifying Exam results in dismissal from the program. Students who have not completed the Qualifying Exam by the end of their third semester must petition the Graduate Committee in order to continue in the program. Within three years of admission to the PhD program students must apply to move on to candidacy and take their **Preliminary Examination** (section B3). The Preliminary Examination consists of a written research proposal that should highlight the research needed to move their field forward and how this need will be met by the dissertation research. The Advisory Committee will evaluate the research proposal and administer a mandatory oral examination aimed at assessing the student's ability to conduct and understand their proposed research.

Candidacy. Candidacy is the period of active research and independent study guided by the dissertation proposal, the primary advisor and the Advisory Committee. Completion of the *PhD Dissertation* (section B4) and passing of the *Final Examination* (section B5) is required before granting of the PhD degree. The Final Examination is an oral presentation, and defense of, the research in the PhD dissertation.

2. A student shall establish candidacy within three (3) years of admission to the PhD program. The maximum allowable time for completion of requirements for the PhD degree is six (6) years from admission to the graduate program. Students who do not finish within the specified time must file a written request with the Graduate Committee to be allowed to continue in the graduate program.
3. At least 90 credit hours (academic course credit and research credit) are required. At least 30 credit hours used to satisfy degree requirements must be earned while registered for doctoral study in continuous residence on the Purdue campus where the degree is to be granted. A master's degree or professional doctoral from any accredited institution may be considered to contribute up to 30 credit hours toward satisfying this requirement at the discretion of the student's graduate program.
4. Maximum credit loads (academic course credit and research credit) are established by the University Graduate School. Graduate registration should reflect the student's academic activity as accurately as possible. In fulfilling degree requirements, a normal, full-time load for a graduate student is a minimum of 8 to a maximum of 18 credit hours per semester; 15 for those who are awarded a TA. A minimum of 6 to a maximum of 9 credits is considered full-time for Summer. Students holding research assistantships must register for research credit each semester.
5. A student pursuing a doctoral program is expected to maintain a minimum cumulative GPA of 3.0/4.0. Failure to do so will result in the student being identified as "LOW" in academic standing by the University Graduate School. Students so identified will not be awarded a degree. Further, a student remaining in "LOW" academic standing for three (3) consecutive semesters will be asked to leave the program.
6. All doctoral students are required to register for two (2) semesters of EAPS 691 and write a brief summary of at least seven (7) seminars attended per semester.
7. All doctoral students must also present a public seminar during a thematic area research group meeting in the final year of their PhD program. The entire department (faculty and graduate students) should be invited to this seminar. This seminar should **not** be the thesis defense talk, but an hour-long seminar for a general audience, structured as a talk one would give when interviewing for a post-doc or faculty position. The oral defense listed in #8 does not fulfill this requirement.
8. It is required that each doctoral student will present an oral defense, based on their research, to the faculty, graduate students, and other interested individuals
9. Research *in absentia* is allowed after establishment of candidacy, subject to approval by the Advisory Committee.

B. Specific Requirements

1. *Plan of Study*: Completion of an approved plan of study is required.

- a) An appropriate plan of study will be drawn up by mutual agreement between the student, the Major Professor, and the members of the student's Advisory Committee.
- b) The minimum number of course credits for the PhD degree (excluding thesis research credits, EAPS 699), is 24 for a student who comes into the program without an MS degree or 12 if the student has already earned a MS degree in a related field or 6 if the MS was earned from EAPS. The courses should generally be 500 level or above, but a maximum of six (6) credits at the 300-400 level are allowed. A maximum of six (6) credits of independent study are allowable. Students must take a minimum of nine (9) credits in the EAPS department.
- c) The plan will reflect that a dissertation will be prepared and will indicate a subject area and/or working title.
- d) The plan will reflect a primary area of course work designed to support the proposed research, and will also indicate related area(s) of course work designed to broaden the student's background in selected subjects.
- e) The plan must be prepared by the student and submitted for approval prior to the end of the fourth semester in residence. The approval procedure will be as prescribed by the University Graduate School. Access to the electronic Plan of Study Generator (POSG) is via myPurdue.
- f) To complete an approved plan of study a candidate must complete each course to be used as fulfilling credit requirements with a letter grade of B or better in graduate level courses, a B- or better in undergraduate course, and have an overall GPA of 3.0 or better.

2. *Qualifying Examination*

- a) A student becomes eligible to take the qualifying exam upon :
 1. meeting of the Advisory Committee and filing of the plan of study.
- b) The Qualifying Exam is administered as either a written or oral examination of format determined by the Advisory Committee and will cover general competency in the field (with emphasis on their coursework taken) related to their initial research area. The student will receive individual exam questions from the faculty committee and the overall exam may be spread out over many days. The major faculty advisor will poll the individual committee members as to whether the student has sufficient knowledge/competency of the subjects tested. Students will also meet with the committee members to review their answers. Specific guidelines for the examination are as follows:

1. The student will be advised of the format and length of the examination, as established by the Advisory Committee, at least one (1) month in advance of the examination date. The examination should be completed within a two-week period.
2. The Qualifying Exam will consist of a minimum of 3 exams total, and a maximum of one examination from each committee member who chooses to provide one. Each individual exam may be oral or written with a maximum duration of two hours.
3. Individual questions will be graded as pass/fail by the members of the Examining Committee who submitted them. If only three exams are taken, all three must receive a passing grade for the student to receive a grade of pass for the overall exam. If four or more exams are taken, the student will receive a grade of pass if not more than a single failing grade on an individual exam is given.
4. The examination may be taken only once in a semester. Students who fail the qualifying exam may petition for a re-examination, which must occur within one semester and is subject to the discretion of the Advisory Committee. Failure of the qualifying exam can result in dismissal from the program or redesignation to the MS tract if the committee feels it is warranted. A second failure of the Qualifying Exam results in dismissal from the program.

3. *Preliminary Examinations:*

- a) Components: The PhD Preliminary Exam consists of two (2) required components, a written prospectus describing the research the student has done to date and plans to accomplish to complete their dissertation, and an oral defense of the prospectus.
- b) Objective: The objectives of the PhD Preliminary Exam are to provide a PhD student an opportunity to design and defend a research plan to complete their PhD program, to foster critical thinking skills and scientific creativity, the ability to communicate scientific ideas in both written and oral forms, and to identify deficiencies in the student's background that can be addressed to better prepare the student for a successful research campaign.
- c) Administration: The examination is administered by the student's Examination Committee which must consist of a minimum of three members of the graduate faculty. At least 51% of the committee members must have regular graduate faculty certification. A committee member other than the Advisor is assigned as the committee chair. It is the responsibility of the Examination Committee Chair to ensure that all student and committee member responsibilities and timelines described below are met.

d) Timelines and Responsibilities:

1. In collaboration with the Examination Committee and Graduate Secretary, the student sets a date for the oral exam.
2. The student is responsible for notifying the Dean of the University Graduate School of the date, time, and place of the examination by filing Graduate School Form 8-Request for Appointment of Examining Committee, *a minimum of two (2) weeks in advance* of the oral exam, in accordance with regulations of the University Graduate School. Students should access the Exam Form Generator through myPurdue and select the “Graduate School Plan of Study” link under the “Graduate Students” section on the “Academic” tab.
3. Four (4) weeks before the oral exam, students provide the Examination Committee and the Graduate Secretary with a prospectus of their research. A prospectus should include research accomplished to date (not to exceed more than 1/3 of the document) and a proposal for research to be completed by graduation.

It is suggested that the prospectus contains the following elements for each distinct research area:

- i. Explicitly state the scientific question(s) being addressed.
- ii. Why this question is significant (why should the community be interested).
- iii. How the proposed research fits in with what has been accomplished to date by the research community (literature review).
- iv. Hypotheses to be tested.
- v. Research plan: Design of analyses, models, and/or experiments to address the research questions and test hypotheses, including the basic assumptions and limitations of the research plan.
- vi. Preliminary results and/or anticipated results.

If a prospectus is not delivered to committee members by four (4) weeks prior to the scheduled oral exam, the oral exam must be rescheduled.

4. Two weeks prior to the oral exam, each committee member will provide comments on and a grade for the prospectus (pass, fail) and discuss with the student what modifications are suggested to improve the prospectus. In the case of a prospectus fail, a student also fails the preliminary exam and the Examination Committee shall decide whether the Preliminary Exam should be rescheduled, though no sooner than the following semester.
5. The time and place of the public presentation needs to be announced to Examination Committee members, EAPS faculty, graduate students, and the Graduate Secretary at least one week prior to the oral defense. The oral exam shall consist of a public presentation of the prospectus followed by an oral examination with the Examination Committee. Other faculty

members may be requested by any member of the Examination Committee to participate, without vote, in the examination, and any interested faculty member may be present, without a vote. The oral exam shall result in a pass, conditional pass, or fail. Although only three Examination Committee members are required, if the committee has four or more members, a single member may withhold his or her signature of approval. In the case of a conditional pass, the Examination Committee shall devise a plan to help the student improve identified deficiencies in the student's background knowledge. For example, a possible way to address a deficiency may be a written or oral review of relevant literature. A conditional pass must be converted to a pass by the Examination Committee within four (4) weeks of the oral exam, or the conditional pass is automatically converted to a fail. In the case of a fail, the Examination Committee shall decide whether the student should retake the Preliminary Exam at a future date, though not within the same semester.

6. After admission to candidacy, the candidate must *devote at least two (2) semesters* to research before taking the final examination.

4. *Dissertation*: Submission of an acceptable dissertation is mandatory. It must be of literary and scholarly merit, and demonstrate the candidate's ability to conduct original research.

- a) The dissertation topic will be determined by mutual agreement between the student and the Major Professor, and approved by the members of the student's Advisory Committee at the time of the preliminary examination.
- b) The dissertation format will be as follows: [*you can access the Thesis/Dissertation Office at:*
<https://www.purdue.edu/gradschool/research/thesis/index.html>]

University Format Requirements:

Six different format items will be reviewed by the staff in the Library Thesis/Dissertation Format Office: 1) typeface and quality; 2) spacing; 3) margins; 4) page numbering; 5) title page; and 6) abstract. However, these items will no longer be reviewed prior to the request for appointment of the student's final examination committee. Instead, this review will take place at the time the student's thesis or dissertation is deposited at the library, after all changes and modifications requested by the student's Examining Committee have been made.

Departmental Format Requirements:

The dissertation shall consist of a format consistent with a journal article manuscript in one of the following journals and using the format described in the style manual for that journal:

Journal of the Atmospheric Sciences
 Journal of Geophysical Research
 Bulletin of the Geological Society of America

If there is overlap between departmental style specifications and university format requirements, the University requirements **must** be satisfied.

The responsibility for review of the Departmental Format requirements will be assigned to the Chair of the student's Advisory Committee. This individual will have the added responsibility of assuring that the final dissertation meets the stylistic requirements adopted by the department.

- c) A PDF of your final thesis/dissertation must be turned into your Major Professor a **minimum** of two weeks prior to thesis/dissertation deposit to conduct an *iThenticate* check. Failure to meet this deadline may affect submission of your thesis/dissertation which may, in turn, delay your graduation date.
5. *Final Examination*: After the research has been completed and the thesis written and presented to the committee, a final oral examination must be held in which the candidate defends the thesis and demonstrates to the Examining Committee, consisting of a minimum of four (4) members, the capabilities for which the PhD degree is to be awarded.
- a) The Examining Committee will normally be the Advisory Committee, plus one additional member for a total of four, but does not have to be. The student has the responsibility of notifying the Dean of the Graduate School of the date and place of the examination, and of formally requesting appointment of the Examining Committee **a minimum of two (2) weeks in advance**, in accordance with regulations of the University Graduate School (Graduate School Form 8-Request for Appointment of Examining Committee). Students should access the Exam Form Generator through myPurdue and select the "Graduate School Plan of Study" link under the "Graduate Students" section on the "Academic" tab. The student's Major Professor (Chairperson of the Advisory Committee) is not eligible to serve as Chairperson of the oral examination. The Department Head may name an additional member to the student's Examining Committee.
 - b) An acceptable draft copy of the dissertation will be provided to each member of the Examining Committee **at least two (2) weeks in advance** of the date of the defense.
 - c) The oral defense must be scheduled so as to occur no later than two (2) weeks prior to the final date for filing of the approved dissertation with the Graduate School. The final examination will have a seminar-type format, and be no more than four (4) hours in length. The oral examination will begin with a presentation, by the candidate, of the dissertation research. All faculty, students, and interested observers may attend this portion of the examination.

- d) The outcome of the final examination will be:
 - 1. a recommendation that the degree be awarded, or
 - 2. a recommendation that additional research be conducted and/or that additional writing is necessary
- e) A candidate may undertake only one final examination per semester.
- f) The Major Professor will file a report of the results of the examination with the University Graduate School before the end of the session in which the degree is expected.

VII.

Other Instructions

A. Change in Classification

- 1. Students changing their status from MS to PhD (without completing the MS) or changing status from PhD to MS, must have written approval from their Advisor and the Graduate Committee. The student will prepare a memo, addressed to the Graduate Committee, requesting a reclassification change and the reason for the request. This memo must also include signature approval by their Major Advisor.

B. Petitions for Exceptions to Regulations

- 1. Applicants for admission and students in residence may petition the Graduate Committee for relief from any regulation or policy established by the EAPS Department.
- 2. Petitions must be presented well in advance of deadlines, to allow adequate time for the Graduate Committee's consideration.
- 3. The Graduate Committee may waive a regulation when deemed in the best interest of the academic process.

C. Graduate School Late Fee Charges

The Graduate School (West Lafayette campus) requires a \$200 late fee for the following graduation-related situations:

- 1. Electronic Plan of Study received at the Graduate School in the session that the graduate student intends to receive his/her degree. The Graduate School requires the Plan of Study be submitted prior to the start of a session in which a student graduates. (See departmental regulations above for submittal of a Plan of Study, however).
- 2. Declaration of candidacy beyond the deadline date.
See <https://www.purdue.edu/gradschool/about/calendar/deadlines.html> for deadline dates.

3. Listing on the Graduate School's candidacy list for the same degree more than two consecutive sessions.

D. Announcement of Examinations

Final oral examinations (MS and PhD) will be announced in the departmental newsletter, as well as announced on the Google Calendar on the EAPS website *at least one (1) week in advance* of the examination date. The announcement will identify the student, the thesis/dissertation title, and the time and place of the examination. Preparation of this announcement is the responsibility of the Graduate Secretary. It is the responsibility of the student or Major Advisor to send out a general announcement to students and faculty.

E. Participation in Oral Examinations

Faculty other than those on the student's Examining Committee may participate in oral examinations. Such faculty members are not authorized to participate in the final decision of the Examining Committee. Interested students may attend, as observers, the oral presentation of thesis/dissertation results by the candidate.

F. Registration for "Exam" & "Degree" Only

In order to be eligible for a privileged registration of "exam only" or "degree only", all graduate students are *required to have been registered for a minimum of one (1) hour of research in the preceding session*, (this includes summer).