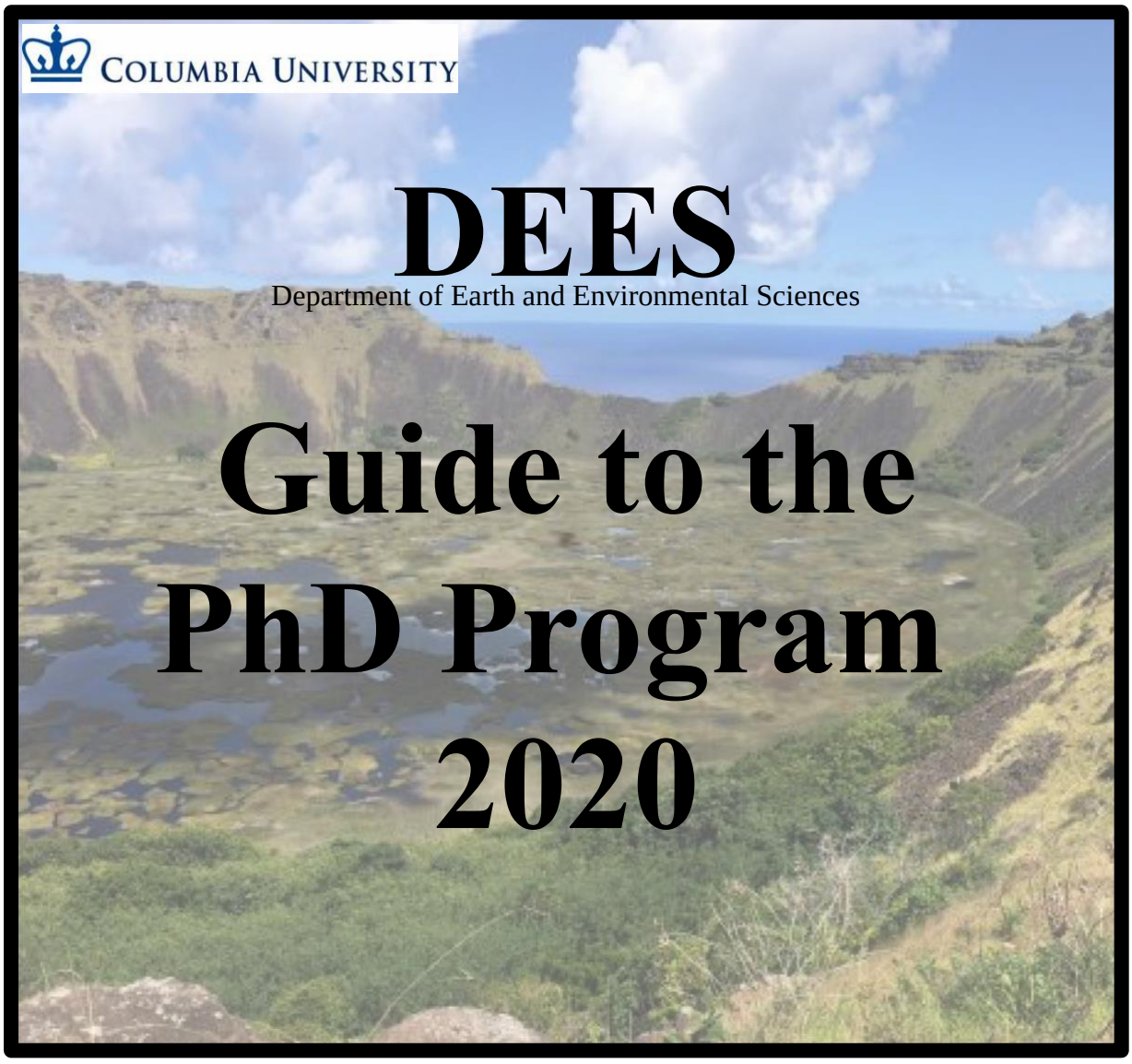
COLUMBIA UNIVERSITY
DEES
Department of Earth and Environmental Sciences
Guide to the PhD Program 2020

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1. Introduction

This Guide has been prepared to lay out the requirements and procedures of the Ph.D. Program in the Department of Earth and Environmental Science (DEES). This Guide is directed not only to Ph.D. Students but also to the DEES's faculty, all Advisors, Advisory Committee members and the administrative staff. The department's goal is to provide the very best academic advising and administrative oversight; this can only happen when everyone involved is familiar with and in agreement as to how the program works. Thus, this Guide is part overview and part reference manual.

All incoming Ph.D. Students and all Advisors and Advisory Committee members are *strongly* urged to become familiar with the material in this guide! It contains material relevant for each successive stage in a Ph.D. Student's program. While GSAS departments are given a fair amount of independence, the GSAS policies must be followed as well. Students should refer to the GSAS website on a regular basis.

The Ph.D. program prepares the student to become an independent researcher, and therefore the primary responsibility for successfully completing the Ph.D. program rests with the student. Like most Ph.D. Programs, ours expects a high degree of initiative and self-motivation from every student. Both are necessary to complete the Ph.D. dissertation (or "thesis"), which is a central element of the program. Ph.D. Students are expected to be familiar with the requirements of the program and general policies of the Graduate School of Arts & Sciences (GSAS) and to actively work to satisfy them in a timely manner.

Nevertheless, no Ph.D. Student is left completely to his or her devices. Students are supervised, mentored and assisted by many different University-affiliated personnel, who in aggregate cover many different aspects of the program. Academic oversight is provided by the student's Advisory Committee, consisting of an Advisor and two other Ph.D.-level scientists who are focused on the student's coursework and dissertation research. Administrative oversight is provided by members of DEES's staff who monitor the student's progress towards fulfilling programmatic requirements (Departmental and GSAS).

Much of the scientific research that Ph.D. Students perform would not be possible without the laboratories and technical personnel needed to perform state-of-the-art science. DEES provides Ph.D. Students access to these essential laboratories and technical personnel through partnerships with *affiliated organizations*, some of which are part of Columbia University and others of which are independent. These include the Lamont-Doherty Earth Observatory (LDEO or "Lamont" or "the Observatory"), the American Museum of Natural History (AMNH or "the museum"), the Goddard Institute of Space Studies (GISS), and the International Research Institute of Climate and Society (IRI). Each has its own scientific, administrative and technical staff and its own administrative structure.

Lamont-Doherty Earth Observatory (LDEO)
http://www.ldeo.columbia.edu/

American Museum of Natural History (AMNH)
http://www.amnh.org/

Goddard Institute for Space Studies (GISS)
http://www.giss.nasa.gov/

International Research Institute for Climate and Society (IRI)
http://iri.columbia.edu/

2. DEES Organization

2.1 Who's Who in DEES

DEES's personnel can be divided into the categories of *administrative staff*, *technical staff*, and *faculty*.

The ***administrative staff*** consists of people who manage programs and money, keep records, track student progress, schedule classes and exams, and so forth. Ph.D. Students will frequently interact with the DEES administrative staff on matters such as registration, scheduling exams, Teaching Assistant (TA) assignments and expense reimbursements.

The Director of Academic Administration and Finance: Sarah "Sally" Odland
Contact: LDEO – 108 Geoscience; 845-365-8633; odland@ldeo.columbia.edu

Graduate Program Manager: Kaleigh Matthews
Contact: LDEO – 107 Geoscience; 845-365-8551; kaleighm@ldeo.columbia.edu

Administrative Assistant: Monica Hinojosa
Contact: LDEO – 106 Geoscience; 845-365-8482; hinojosa@ldeo.columbia.edu

Business Officer: Yasmin Yabyabin
Contact: LDEO – 106 Geoscience; 845-365-8550; yas@ldeo.columbia.edu

Assistant Director of the Climate & Society Program: Cynthia Thomson
Contact: Morningside – 554 Schermerhorn; 212-854-9896; cthomson@iri.columbia.edu

Undergraduate Academic Program Manager: Anastasia Yankopoulos
Contact: Morningside – 557 Schermerhorn; 212-854-3614; aty2113@columbia.edu

The DEES ***faculty*** consists of scientists who teach courses, advise Ph.D. Students and conduct research. Their research is usually conducted through one of the affiliated organizations, such as LDEO, GISS, AMNH, IRI, so most are members of one or more of these organizations, as well as being faculty members of DEES. In DEES, faculty members are *professors*, *lecturers* or *associates*. The majority of faculty members are professors, either full-time or adjunct. The lecturer title is used mostly for short-term appointments, especially when someone is hired to teach a single course. The associate title is used when the position has an educational focus but does not require a Ph.D.

The Chair of the faculty is a senior professor elected by the other professors for a three-year term. The Chair has overall responsibility for the functioning of DEES, and oversees all of the DEES's staff (including its professors) and all of its programs. The Chair is assisted by an Associate Chair, also a senior professor. The faculty member responsible for the overall Ph.D. Program is the Director of Graduate Studies (DGS).

Department Chair: Sidney Hemming

Contact: LDEO – 413 Comer; 845-365-8417; sidney@ldeo.columbia.edu

Associate Chair: Jerry McManus
Contact: LDEO – 239 Comer; 845-365-8722; jmcmanus@ldeo.columbia.edu

Director of Graduate Studies: Göran Ekström
Contact: LDEO – 108I Seismology; 845-365-8427; ekstrom@ldeo.columbia.edu

The professorial staff is divided into three ranks, professor, associate professor and assistant professor, based on seniority. Professors are also categorized by whether they are full-time in DEES, or whether their primary appointment is with another organization (such as LDEO, AMNH, GISS or IRI), in which case the word *Adjunct* is added to their title. Full-time and adjunct professors both participate in teaching, advising students and other faculty responsibilities, but adjuncts have a reduced time commitment.

A retired professor who continues to participate in the mission of DEES is given the title *Emeritus* Professor. A professor from another institution who is on an extended visit to Columbia University is sometimes given the title *Visiting* Professor. The Emeritus and Visiting Professor titles are mostly honorary; such professors have only limited Departmental responsibilities, but can serve on Advisory Committees if they so choose.

A complete list of the Department's faculty and other staff can be found in the Faculty & Staff section of the DEES website, at URL: http://eesc.columbia.edu/faculty-staff

2.2 Scientists and Administrators at Affiliated Organizations

There are numerous outstanding research scientists at our affiliated organizations (LDEO, AMNH, GISS and IRI) who are not formal members of the DEES faculty, yet actively participate in the Ph.D. program as Advisors or in more informal mentorship arrangements. Ph.D. Students are encouraged to know and interact with these affiliated scientists, especially those in their own research specialties.

All of DEES's affiliated organizations have their own administrative staffs. They provide many different services to their respective scientists, including payroll, space allocation, financial oversight of grants and contracts, purchasing, travel reimbursement, accounting, etc. DEES manages Ph.D. Student payroll directly, but most research-related administrative services (including office space) are provided through the particular affiliated research organization that hosts a given Ph.D. Student. All Ph.D. Students are expected to become familiar with the administrators in their host organizations and the procedures that they are expected to follow. Advisors should introduce students to the key administrators they will need to interact with during their research, explain the functions of each, and identify the people who can help resolve commonly arising problems.

The research at Lamont, IRI, GISS and AMNH is produced and supported by a wide array of faculty, research professors, scientists, technical staff, post docs and students, all of whose work is key to the success of the research missions they are part of. Staff Associates and Research Scientists play an important role in graduate student research, providing critical education/training/mentoring to the students in how to do lab work, programming, modeling, analyses that they cannot get from their advisors. These staff often form the continuity in expertise, knowledge, experience and know-how that glues groups together and enables PIs to build and maintain research groups that flourish, educate and train next-generation scientists.

When DEES Ph.D. students need assistance or technical work from staff who are not their advisers, they must be aware of and follow reporting chains of command. Students should first discuss their needs with their advisor who, if necessary, will contact the supervisor of the staff whose help is being requested to arrange the appropriate level of assistance.

See the Lamont Code of Conduct for guidelines on community standards and appropriate conduct for members of the Lamont community and all visitors to Lamont.

3. Applicable DEES Committees

3.1 The Graduate Admissions Committee

The Graduate Admissions Committee reviews student applications, recommends students for admission to the program, assigns initial advisors and identifies student academic deficiencies.

Chairperson (2019-2020): Steve Goldstein
Contact: LDEO – 213 Comer; 845-365-8787; steveg@ldeo.columbia.edu

3.2 The Graduate Program Committee

The Graduate Program Committee (GPC) monitors the progress of all Ph.D. Students and identifies instances where students are falling behind schedule or fail to meet programmatic requirements. Ph.D. Students interact with the committee when they add or change Advisory Committee Members, request exceptions from normal procedures, etc. The Chair of this committee is also the Director of Graduate Studies of the Department.

Chairperson and Director of Graduate Studies (2017-2018): Göran Ekström
Contact: LDEO – 108I Seismology; 845-365-8427; ekstrom@ldeo.columbia.edu

3.2.1 The Examinations Subcommittee

The Examinations Subcommittee of the GPC chooses examiners for student exams, including the Qualifying Exam.

Subcommittee Chair (2019-2020): William Menke
Contact: LDEO – 203 Seismology; 845-304-5381; menke@ldeo.columbia.edu

3.2.2 The TA Policy Committee

The TA Policy Committee decides which courses are eligible for teaching assistants, vets course prospectuses, and sets overall TA policy. Individual TA assignments are made by the Graduate Program Manager with committee oversight.

Committee Chair (2019-2020): Nick Christie-Blick
Contact: LDEO – 215A Seismology; 845-365-8180; ncb@ldeo.columbia.edu

4. The Advisory Structure

4.1 Advisors

Every Ph.D. Student has an *Advisor* (also called a *Sponsor*), a scientist in his or her field of study who monitors his or her progress towards the Ph.D. and who provides mentorship and oversight on all academic and research matters. All ranks of DEES Professors, all ranks of Lamont

Research Professors, and many Ph.D.-level scientists at other affiliated institutions are pre-approved to serve as Advisors. Other Ph.D.-level scientists at affiliated organizations may also serve, but their appointment as Advisor requires the prior approval of the Dean of Columbia University's Graduate School of Arts and Sciences (GSAS).

The Ph.D. Student and Advisor are jointly responsible to stay in touch with one another and to hold regular meetings. Ph.D. Students are responsible to keep their Advisors informed of their academic and research progress and of any problems that develop. Advisors are responsible to track carefully their Ph.D. Student's academic and research progress and to understand the requirements of the Ph.D. program well enough to give good advice.

Advisors are expected to actively seek grants and contracts to provide three or more years of financial support for their Ph.D. Students through Graduate Research Assistantships (GRA's). Grant proposal budgets should include both nine months of academic year support and three months of summer support.

The Admissions Committee identifies an Advisor for every Ph.D. Student at the time of admission, based on a variety of factors, including the student's research interests as expressed in the application, preliminary discussions (if any) between the student and a prospective Advisor, and the Advisor's willingness to take on the role. The Advisor constitutes the first member of the Ph.D. Student's Advisory Committee.

In most cases, this initial assignment of an Advisor will persist throughout the student's term of study. However, a Ph.D. Student is permitted to change his or her Advisor when circumstances clearly warrant. For example, the student's research interests may change to such a degree that his or her current advisor is no longer able to provide the required degree of supervision, or personality conflicts may become so severe that they preclude a mentorship relationship. In such cases, the Ph.D. Student may petition that the current Advisor be replaced with one of his or her choosing, provided that both the current Advisory Committee and prospective Advisor have agreed (see Protocol 1). Ph.D. Students are strongly cautioned that the changing of an Advisor is a serious matter not to be taken lightly.

4.1.1 Promoting a Mutually Beneficial Advisor-Advisee Relationship

The relationship between an advisor and an advisee (e.g., student, postdoc) is especially sensitive given the power imbalance between the two and carries extra demands for ethical behavior. Key principles of advising address areas of potential sensitivity and concern by:

- Promoting an environment that is intellectually stimulating and free of harassment;
- Being supportive, equitable, accessible, encouraging, and respectful;
- Recognizing and respecting the cultural backgrounds of advisees;
- Being sensitive to the power imbalance in the advisor-advisee relationship

Both the advisor and the advisee should have clearly defined expectations from the outset of the relationship. See the Lamont Code of Conduct for guidelines and discussion points for the advisor-advisee relationship.

4.2 The Advisory Committee

Each Ph.D. Student is guided by a three-person Advisory Committee chaired by the Ph.D. Student's academic advisor. The Advisory Committee provides mentorship and scientific oversight as the student progresses towards the Ph.D.

4.2.1 First-year Advisory Committee

Before the start of the first semester the Ph.D. Student's Advisor selects two additional Advisory Committee members to populate the Student's First-year Advisory Committee. The advisor must inform the Department Office who the two additional members will be. This First-Year Advisory Committee serves in part to provide broad advice on topics relevant to all first-year students in DEES, such as the selection of courses and the balance of research and course work.

The Student and the First-year Advisory Committee meet together **with a member of the Graduate Program Committee** at the start of the first semester to review various rules and procedures in the Department and to address any issues or questions.

At the end of the first year, the Student and the Advisor review the membership of the First-year Advisory Committee, and if necessary and/or appropriate, the Student requests membership changes to his or her Advisory Committee moving forward (see Protocol 2).

4.2.2 Advisory Committee Guidelines

At least one member of a student's Advisory Committee must be a DEES professor (either full-time or adjunct, of any rank). This person (or persons, if more than one member is a DEES professor) has the special responsibility of ensuring that the other members of the committee are fully informed about relevant DEES policies and procedures.

All DEES professors (full-time or adjunct), Lamont Research Professors, and their equivalents at GISS, AMNH and IRI are automatically eligible to serve on Advisory Committees. Furthermore, a Ph.D. Student may petition that any other Ph.D.-level scientist be permitted to serve (including scientists from other Columbia departments and other institutions).

The purpose of the Advisory Committee is to assist the student during his or her graduate career. As such, the committee membership should reflect and complement the student's research interests. The Ph.D. Student may therefore change the second and third members of the Advisory Committee, as circumstances warrant (see Protocol 2).

Advisors who anticipate substantial absences from the University (e.g. fieldtrips, sabbatical leaves) must make arrangements for the Ph.D. Student to receive adequate advising in his or her absence. A Ph.D. Student who experiences problems related to the prolonged absence of his or her Advisor should discuss the matter with the Director of Graduate Studies or with the Graduate Program Manager.

4.2.3. Advisory Committee Meetings

Regular meetings between the Ph.D. Student and his or her Advisory Committee are *essential* for the Ph.D. Student's successful completion of the Ph.D. Program. The student and the advisor must arrange to meet formally with the student's Advisory Committee *at least* once each semester (no later than the registration period) to discuss overall progress, the course program, research, exam schedules, review/identify the student's deficiencies and formulate a plan to eliminate them, etc. The Ph.D. Student has the responsibility for scheduling these meetings, and the members of the Advisory Committee have the responsibility of making themselves available for them.

5. Registration and Academic Calendar

Registration is the process whereby a Ph.D. Student renews his or her relationship with the University at the beginning of each semester. A Ph.D. Student registers for classes but also, more

generally, for *residence status*. Residence status is *very* important because many University actions, such as paying Ph.D. Students their stipend, are dependent upon it.

5.1 Residence Status

Every semester Ph.D. Students must register for residence status using one of the following enrollment categories depending upon his or her situation:

- Residence Units (RU) - A student who has not yet accumulated six Residence Units registers for RU
- Extended Residence (ER)- A student who has already accumulated six residence units registers for ER
- Matriculation and Facilities (M&F) - M&F is used in cases where a Ph.D. student has completed their coursework and is working on their dissertation but is not receiving a student paycheck or stipend from the University. Often an M&F student is not in residence at the University (e.g., working at an outside job while finishing his or her dissertation or preparing for the defense).

Ph.D. Students with questions about their registration status should refer them to the Department Office. For more information on enrollment categories see the GSAS Student Guide.

5.2 Registration

Registration is accomplished through Columbia's Student Services Online (SSOL). Early Registration is in April for the Summer and Fall Semesters and in November for the Spring Semester. See the Academic Calendar for specific deadlines.

Ph.D. Students are not required to register for classes during Early Registration, however, Early Registration helps DEES by providing a preliminary estimate of class size. Early Registration is particularly important when the Ph.D. Student will be doing fieldwork during the summer and into the early fall. Being properly registered ensures that stipend, housing, health insurance, and enrolled student status are not interrupted.

At the start of each semester, Ph.D. Students will receive registration materials from the Graduate Program Manager. The registration materials are prepared for each Ph.D. Student and contain forms to be completed and returned to the Graduate Program Manager after consultation with the student's Advisory Committee. It is important that all students meet with their Advisory Committee at the start of each semester.

All students who have not yet completed their Dissertation Proposal must bring their completed registration paperwork to a Registration Professor, who is usually the Director of Graduate Studies, for final approval. The Registration Professor checks the student's paperwork to ensure that all departmental requirements are being met. This meeting must occur before the drop/add period closes.

For general questions regarding registration dates, see the Registration Dates page on the Registrar's website or the Academic Calendar.

5.3 Continuous Registration

Ph.D. Students are required to maintain continuous enrollment, registering for the appropriate residence status (RU, ER, or M&F) each semester until they distribute their Ph.D. thesis to their 5-person Defense Committee. For more information on Continuous Registration see the Registration Page of the GSAS Student Guide.

5.4 Leave of Absence
Ph.D. Students wishing to interrupt their studies for a compelling reason — such as sustained physical or mental ill health, maternity or paternity, national service, or personal reasons— must apply for a leave of absence, which exempts them from the continuous registration requirement (see Protocol 7). For more information on Leaves of Absence, Withdrawals, or Reinstatements, see the GSAS Student Guide.

5.5 Academic Calendar
Important dates for the current Academic Year can be found on the Academic Calendar in the GSAS Student guide as well as on the Academic Calendar on the Office of the University Registrar website.

6. Coursework and Teaching Assistantship

6.1 Entrance Deficiencies
Students entering the program must have completed one year of college coursework with a B or better in Chemistry, Calculus, and Physics. The Admissions Committee will identify any academic deficiencies before the student's first registration in the Department. The student must remove the deficiency as soon as possible; the M. Phil. degree cannot be granted until all have been removed. If the Ph.D. Student believes that the determination is inaccurate, he or she may petition the Graduate Program Committee to review it (see Protocol 3). A deficiency is generally removed by earning a grade of B or higher in an appropriate course, selected in consultation with the student's Advisor and/or Advisory Committee and approved by the Graduate Program Committee. For a list of Columbia University courses that satisfy deficiencies see the Admissions Procedure page on the DEES website. A Ph.D. Student may petition the Graduate Program Committee to substitute a course not on the preapproved list of courses (see Protocol 4). Up to two 4000-level courses that are used to satisfy deficiencies may also count towards the Ph.D.

6.1.1 English Proficiency Requirement
The following applicants must complete the English proficiency requirement:
- applicants whose native language is not English and who have received an undergraduate degree from an institution in a country where the official language is not English
- applicants who have received an undergraduate degree from a non-English speaking country and are now studying at the graduate level in the U.S. or another English-speaking country

For information on fulfilling the English Proficiency Requirement, see Information for International Students.

6.2 Course Selection
Courses should be selected in consultation with the Ph.D. Student's Advisory Committee. A minimum of **45** credits is required for the DEES Ph.D. degree. Students must complete the 45-credit requirement by the **Spring semester of their 4th year**.

The Department's research and instruction are arranged within eight Major Disciplines:
- Atmospheric Science
- Biogeoscience
- Geochemistry

- Geology/Paleontology
- Geophysics
- Modern & Future Climate
- Oceanography
- Paleoclimate

Courses associated with each Major Discipline are listed in the Course Listings by Discipline Table on the DEES website.

6.2.1 Breadth Requirement

PhD students should obtain mastery and knowledge in their specialized field while developing breadth across Earth and Environmental Science. Breadth puts PhD research in context and is an advantage when communicating to employers, collaborators, future students, funders and the public. Breadth is also a hallmark of DEES and Lamont, known for its fundamental discoveries into the way Earth works - in both her Solid Earth/Terrestrial and Ocean/Atmosphere realms.

A student's **Breadth Requirement** is fulfilled when 12 credits (at least 4 courses) are completed within four different breadth areas within the matrix (Physics, Chemistry, Biology, History) x (Ocean-Atmosphere, Solid-Earth-Terrestrial). Two of the breadth courses must be within the Ocean-Atmosphere offerings, and two in the Solid-Earth-Terrestrial offerings. The grid reflects current breadth courses; the grid may evolve to reflect new course offerings (providing students new breadth options) and courses no longer taught (which will be grandfathered for breadth credit). All courses used to satisfy the Breadth Requirements must be taken for a letter grade.

Students develop their overall course plans with guidance from their Advisory Committee. Graduate level courses from other Columbia departments, and graduate level courses taken at other institutions for which Transfer Credit has been awarded, can count for the student's coursework upon recommendation of the Ph.D. Student's Advisory Committee (see Protocol 5). At least half of the student's total coursework will consist of courses taught within DEES, cross-listed with DEES or taught by DEES professors.

See DEES Breadth Requirement Grid for a full list of courses.

	Ocean- Atmosphere	Solid Earth-Terrestrial
Physics	Clim Thermo/Energy Transfer Geophysical Fluid Dynamics Air-Sea Interaction Dynamics of Climate Atmospheric Dynamics Intro to Atmospheric Science Tropica Meteorology Physical Oceanography Earth's Oceans & Atmosphere Ocean Dispersion & Mixing Tropical Oceanography Ocean Dynamics	Geodynamics Crustal Deformation Earth's Deep Interior Plate Tectonics Intro to Seismology Global Assmt-Remote Sens Glaciology Sea Level Change Geophysical Inverse Theory Advanced Seismology Marine Seismology
Chemistry	Atmospheric Aerosols Intro to Atmospheric Chemistry Chemical Oceanography Stable Isotope Geochemistry Idealized Models of Climate Processes Humans and the Carbon Cycle Chem Continental Waters	Intro to Mineralogy Igneous Petrology Isotope Geology I Earth Resources & Sus Dev Analytical Methods Geochem Magmatism & Volcanism Ig & Met Processes Chemical Geology
Biology	Biological Oceanography Microbial Oceanography Paleobio & Earth Sys Biogeochemistry	Plant Ecophysiology Earth Human Interactions Evolution Vertebrate Paleobiology Forest Ecology Ecosys Ecol/Globall Change
History	Paleoceanography Wetlands & Climate Cenozoic Paleoceanography	Geochron/Thermochron Terrestrial Paleoclimate Geologic Mapping Sedimentary Geology Field Geology

Student's Breadth Requirement must be complete by the end of the Spring semester of their 4th year, in advance of the M.Phil.

6.2.2 Course Program Information

A Ph.D. Student should develop a tentative program of courses during his or her first semester. It should take into account the student's own assessment of what courses are most relevant to his or her dissertation research, his or her Advisor's assessment of the same, the schedule of courses being offered, and the recommendations of other Ph.D. Students who have taken particular courses. See the DEES Department Course List for a full list of offerings.

Ph.D. Students should note that many graduate courses are taught only in alternate years or in the case of some specialty courses, even less frequently, and take this into account when developing their program of courses. A three-year planner has been developed by the DEES Curriculum Committee to assist with multi-year course planning. For more information on courses offered each semester, check the Columbia University Directory of Classes.

Some important notes:

- All students who have not completed their Dissertation Proposal must register for EESC GR6001 Earth Science Colloquium each semester, which confers one point per semester for required attendance at LDEO's Friday Colloquium. Post-proposal students do not receive credit for this course.

- Students who are not taking any other courses in a given semester should register for EESC GR9001 Research in Earth and Environmental Sciences. The credits conferred by GR9001 do not count towards the 45-point requirement except in very specific circumstances worked out in advance with the Department Office and DGS.

- Students should register for EESC GR6003 Masters Research in the semester their Qualifying Exam is scheduled (typically the spring semester of their second year). The 4 credits awarded for GR6003 upon successfully completing the Qualifying Exam count towards the 45-point requirement.

6.2.3 Working toward the 45-credit requirement

The 45-credit requirement **must** be complete for a student to apply for the M.Phil. degree (Deadline: May 31st, 4th year). If a student is unable to complete the requirement by the Spring deadline, he or she must request a time extension using Protocol 8.

Only 4000-level courses and above will count towards the 45-point requirement. Courses that were taken to remove an academic deficiency do not count towards the 45 degree credits.

Students who choose to take courses outside of the department must request permission to use these course credits towards their 45-credit requirement. This can be done using Protocol 5.

Department courses (typically 8000 or 9000 level courses) taken for pass/fail will count towards the 45-point requirement, however, these courses will not count towards a student's Breadth requirement.

6.2.4 Taking courses at other institutions

Nine universities in the New York City area (Columbia University, City University of New York [CUNY], Fordham, New School, New York University, Princeton, Rutgers, Stony Brook and Teachers College) participate in the Inter-University Doctoral Consortium, a program whereby students enrolled in any of the schools can take courses in any of the other schools without paying additional tuition.

Students register for the courses they plan to take at other institutions by completing the Inter-University Doctoral Consortium Registration Form and completing Columbia's online IUDC application.

Students who wish to take courses at the American Museum of Natural History must also complete the IUDC Registration Form in order to register for a course at the museum.

6.3 R-Credit

Occasionally, a Ph.D. Student may wish to attend a course but not to receive a grade in it, perhaps because he or she is taking several other courses with substantial workloads. Enrolling in the course for R-credit (see Protocol 6) provides official recognition of the course on the Ph.D. Student's transcript, but with no grade being given.

R-credit is not accepted toward meeting degree requirements. Once R-credit is awarded, the grade cannot be changed. Furthermore, by University policy, a Ph.D. Student may not take a course for R-credit, and then repeat it for regular graduate credit later. For further information, see the GSAS Student Guide.

6.5 Transfer Credits

Ph.D. Students may apply for up to 15 transfer credits of graduate-level courses, which if granted, reduce the number of courses that they are required to take for their degree, but which do not change any deadlines or other requirements.

*Note - Columbia University undergraduates who are accepted into the Ph.D. program may apply for credits for graduate level courses taken as an undergraduate, however, these courses cannot have counted toward the undergraduate degree.

A Ph.D. Student must explicitly request Transfer Credit (Protocol 9). It is not conferred automatically, but only after careful review by both the Department and GSAS and only after the Ph.D. Student has demonstrated Masters-level competence by finishing two semesters with satisfactory academic performance (at least a B+ average).

6.6 Requirement to Maintain Good Standing

All Ph.D. Students must maintain good *academic* standing in the degree program, good *administrative* standing, and continued good *progress towards the* degree each semester.

Good Academic Standing includes, but is not limited to:

- Making consistent academic progress
- Maintaining a cumulative grade point average of 3.0
- Meeting all programmatic milestones

Good Administrative Standing means remaining in compliance with all administrative policies and procedures, including those of the Office of Student Conduct and Community Standards.

Good progress towards the degree includes, but is not limited to:
- Completing all requirements for the M.A. within two academic years
- Completing all requirements for the M.Phil. within four academic years
- Satisfying all requirements for the Ph.D. within nine academic years

Failure to maintain "good standing" in any of these 3 areas may result in academic or administrative warning, probation, suspension, or dismissal.

For more information and guidelines on maintaining Good Standing, see the GSAS Student Guide.

Anyone aware of a student not meeting the GSAS requirement for "good standing", should bring it to the attention of the DGS.

6.7 Instructional Requirement or Teaching Assistantship (TA) Requirement

The GSAS Instructional Requirement requires that all Ph.D. Students in the Arts and Sciences assist in the teaching of courses for a total of 2 semesters. By DEES policy, no student is permitted to TA in his/her first semester.

Teaching Assistants' duties will vary depending on the course the TA is assigned to. For more information on specific TA assignments see the Course Prospectus for TA assignments.

The Teaching Assistant (TA) opportunity provides valuable career experience in teaching, organizing course material, course planning and teacher/student relationships. It also helps students to review material from their own coursework. For more information on the value of being a TA, see the GSAS Student Guide.

For more information on the Instructional Requirement and responsibilities, students should refer to the GSAS Student Guide, as well as the DEES TA Guidelines.

7. The M.A, M.Phil., and Ph.D Degrees

7.1 The Master's Degree (M.A.)

The Master's Degree is a prerequisite for the Ph.D. degree.

A Ph.D. Student is awarded the M.A. degree when they have successfully completed the Qualifying Exam.

7.1.1 Requirements for the Master's Degree

DEES Departmental Requirements for a student to be granted a Master's Degree students are:
- The student must have earned four residence units

- The student must have successfully completed the Qualifying Exam
- 30 approved course credits (out of the 45 required credits) must be completed
- The student must submit the Application for M.A degree to the GSAS (Protocol 10)

For more information on the GSAS MA Degree requirements, see the GSAS Student Guide.

7.2 The M.Phil. Degree

The M.Phil. degree is a prerequisite for the Ph.D. degree.

The degree of Master of Philosophy (M.Phil.) is conferred upon a student who has fulfilled all Ph.D. requirements expect the dissertation.

To maintain satisfactory academic progress, all work for the M.Phil. degree must be completed within four academic years (eight semesters) of registration.

7.2.1 Requirements for M.Phil. Degree

DEES Departmental Requirements for a student to be granted the M.Phil. Degree:

- **A minimum of 45 approved course credits must be completed**
- All Entrance Deficiencies must be satisfied
- Students must pass the Qualifying Examination
- Student must complete the GSAS Instructional Requirement (TA requirement)
- Students must complete the Dissertation Proposal and submit the Report of the Dissertation Proposal to the GSAS office (Protocol 14)
- The Department must submit an application for the M.Phil. to the GSAS on behalf of the student (Protocol 15)

For more information on the GSAS M.Phil. Degree requirements, see the GSAS Student Guide.

7.3 The Ph.D.

The degree of Doctor of Philosophy (Ph.D.) is one of the university's highest degrees.

7.3.1 Requirements for the Ph.D.

DEES Departmental Requirements for completion of the Ph.D.:

- Students must have successfully completed the Master's Degree and the M.Phil. Degree as outlined above
- The written dissertation must be approved by the candidate's Advisory Committee and an application for the Dissertation Defense must be sent by the Department Office to the GSAS (Protocol 17)
- Students must successfully defend their dissertation at the Dissertation Defense
- After completing all required revisions and final approval by the major Advisor, the candidate must format and deposit the dissertation in accordance with the regulations of the Graduate School of Arts and Sciences

For more information on the GSAS Ph.D. requirements, see the GSAS Student Guide.

8. Examinations and Assessments

8.1 The Qualifying Exam

The Qualifying Exam serves to assess (1) the potential of the student to conduct independent research, (2) the student's knowledge in the area of specialization, and (3) the student's ability to place his or her current and proposed work in the broad context of Earth and Environmental Sciences.

The Qualifying Exam will be administered in the spring of the student's second year in the Ph.D. program (i.e., fourth semester). To be eligible to take the Qualifying Exam students must be in good standing with the Department and on track to complete 26 course credits by the end of their fourth semester. Under special circumstances, such as recent change of Advisor or research topic, the student may petition, with the support of his or her Advisory Committee, to delay the examination by one semester (i.e., to the fifth semester).

8.1.1 Format

The Qualifying Exam consists of a written Qualifying Paper and an oral examination of the Qualifying Paper. The student will be evaluated on their ability and preparedness to conduct Ph.D. level research and demonstrate commensurate academic knowledge of his/her specialties.

8.1.2 The Qualifying Exam Committee

Each student is assigned a Qualifying Exam Committee for their Qualifying Exam. The committee consists of the student's three Advisory Committee members and two additional members chosen by the DEES Examinations Subcommittee of the GPC. One of the additional members must be a member of the GPC who's expertise is outside the student's area of expertise and will serve as Chair of the Qualifying Exam Committee. Three of the committee members should be considered "inside" the student's area of expertise and two should be considered "outside", with expertise in a discipline different from that of the student. Based on where the student's Advisory Committee members fall (inside or outside), the two additional exam committee members will be chosen to make sure the 3:2 ratio remains. In selecting the additional members, the DEES Examinations Subcommittee will take into consideration (but is not obligated to use) up to two nominations made by the Ph.D. Student (Protocol 12). All members of the DEES professorial staff (both full time and adjunct) and all LDEO Research Professors and their equivalents at other affiliated institutions are eligible for nomination, but postdoctoral research scientists and scientists visiting from other institutions are not.

8.1.3 The Qualifying Paper

The Qualifying Paper should present the student's research and findings. To be acceptable, the research paper must have a General Introduction (approximately 5 pages long) that introduces the central research problem under consideration, starting with its broadest Earth Science context*. The remaining part of the paper (not exceeding 15 pages), should present the specific research question addressed, data and methods used, findings and conclusions. The total length of the Qualifying Paper should not exceed 20 pages (double-spaced), excluding figures and references.

**While the paper may focus on one specific aspect of the Earth, the General Introduction must convey an understanding of the interconnectedness inherent in the Earth and Environmental Sciences. The student must demonstrate a comprehensive understanding of the questions being addressed by showing they have a broad knowledge of how their specialization connects to other aspects of Earth Science.*

The underlying research project should have proceeded to the stage where at least some conclusions can be drawn but it is not a requirement that the Qualifying Paper be ready for submission to a professional journal. Overall, the research paper should demonstrate that the Ph.D. Student has undertaken considerable thought in defining a clear and realistic research project. If using excerpts from a published paper in their Qualifying Paper, the student must make sure that 1) he or she is its first author; 2) the work described was conducted as part of the Ph.D. Program and was not used to fulfill requirements of another program or degree; and 3) the text meets the standards described above, including a General Introduction.

Students will submit their Qualifying Paper to the Graduate Program Manager no later than 11:59 pm on the semester's Midterm Date.

8.1.4 Oral Examination

This oral examination includes an oral presentation given by the student to the examining committee followed by a question and answer period. Students should use their Qualifying Paper as the basis for their oral presentation and presentations should be structured similarly to those given at professional meetings, but should include an introduction placing the research in its broader Earth Science context.

8.1.5 Structure of the Qualifying Exam

The student's written Qualifying Paper will be turned in prior to the exam date and the oral examination will take place at the time of the exam.

The duration of the exam is 2 hours and includes 10 minutes of break to be placed as the committee and student see fit. Following the exam, the committee will convene for 30 minutes to discuss and vote on the outcome.

The exam is formatted as follows:

- The student will begin with a 20-minute uninterrupted oral presentation of their Qualifying Paper (the committee should save questions until the talk is completed for more detailed discussion).
- Following the oral presentation, there will be 1 hour and 30 minutes of question and answer structured around the 3 criteria being assessed:
    - The potential of the student to conduct independent research
    - The student's knowledge in the area of specialization
    - The student's ability to place his or her current and proposed work in the broad context of Earth and Environmental Sciences

Following the question and answer portion of the exam, the Chair will ask the student to leave the room while the committee discusses the student's performance, knowledge and demonstrated capabilities. , Each member signs the outcome vote sheet in the appropriate column, and the Examination Summary Sheet is completed by the Chair of the committee.

Once the Examining Committee determines the outcome, the student is called back in to the room, informed of the Committee's decision, and provided a verbal summary of his or her performance. The student will be asked to sign a written summary of the examination confirming that the outcome and feedback have been adequately communicated. Feedback may include both recommendations and conditions.

Following the exam, the Chair of the committee should bring the Qualifying Exam Vote Sheet and the Examination Summary Sheet to the DEES office (Geoscience 106). The original copy of each sheet will be kept in the student's file and a copy of the Examination Summary Sheet will be sent to the student.

The Chair is responsible for conducting the exam and for ensuring the committee members and the Ph.D. Student are all clear on the format of the exam.

8.1.6 Voting and Assessment

Students will be assessed on their written Qualifying Paper along with their performance on the oral examination.

Once the student leaves the room, committee members will assess (1) the potential of the student to conduct independent research, (2) the student's knowledge in the area of specialization, and (3) the student's ability to place his or her current and proposed work in the broad context of Earth and Environmental Sciences. After a discussion of the student's written and oral performance, committee members will each sign the vote sheet in the appropriate column.

In the case of Straight Pass, the student is recommended to receive their M.A. degree at the end of the current semester and is in good standing to continue towards their Ph.D.

In the case of Conditional Pass, the student is recommended to receive their M.A. degree only upon completion of the required conditions in the specified timeframe (no later than the end of the summer term). If the conditions are not satisfied within the given timeframe, the student will be considered "not in good standing".

A vote of Fail (a) or Fail (b) indicates the Qualifying Exam Committee's lack of confidence in the Ph.D. student's ability to do Ph.D.-level research. If the vote is for Fail (a) the student's Qualifying Paper is judged acceptable for an M.A. degree but the student is not allowed to continue on toward the Ph.D. The student will be asked to leave the program at the end of the current term.

If the vote is for Fail (b), the student does not receive the M.A. degree and is not allowed to continue on toward the Ph.D. The student will be asked to leave the program at the end of the current term.

Students who receive a Fail (a) or Fail (b) on the Qualifying Exam will be given the option to retake the exam within six months. If the student chooses not to retake the exam, he or she must leave the program at the end of the current term. If the student chooses to retake the exam the outcome will follow the conditions of each vote outlined above. Students are allowed to retake the exam only once.

8.1.7 Ad Hoc Policy on Appealing Results

The Examining Committee is solely responsible for determining the outcome of the Ph.D. Qualifying Exam. In performing these duties, the committee is required to exercise good professional judgment, adhere to the relevant procedures and to cover the appropriate type and level of material.

A student is not able to appeal the results of their Qualifying Exam. In extraordinary circumstance, the Department Chair has the authority to investigate and determine whether the

exam was conducted properly and whether the student was in an appropriate physical/mental state for valid testing to have occurred. If such an investigation reveals irregularities or extenuating circumstances that had a clear and major negative impact on the student's performance or the committee's evaluation of that performance, then the Department Chair may invalidate the exam and allow the Ph.D. Student to retake it.

8.2 The Dissertation

The Ph.D. dissertation is a research document that makes a significant and original contribution to existing knowledge in the discipline. The dissertation's fundamental function as an element of doctoral training is to attest to the author's capacity to produce novel scholarship independently according to the standards of a particular academic discipline.

A step-by-step guide to the Dissertation with information for both Ph.D. Students and Advisors can be found in the GSAS Student Guide.

8.2.1 The Dissertation Proposal and Presentation

The purpose of the Dissertation Proposal is to formally review the student's *proposed* research at an early enough stage so that comments/guidance can be given to optimize the student's research efforts. It should present the Ph.D. dissertation topic, background, goals, outline of any research completed to date and future research plans, including specific approaches to be followed and an approximate time table for completing the various stages of the proposed research. **Students must complete the Dissertation Proposal in the spring semester of their 3rd year**.

If a student feels they are unable to complete their Dissertation Proposal within the required timeframe, he or she must request a time extension from their advisor and the Director of Graduate Studies to extend the deadline (Protocol 8). All students must complete their Dissertation Proposal before May 31st of their 4th year. Failure to meet this GSAS deadline **will result in a student losing good academic standing, being placed on probation, and not having their stipend disbursed for the ensuing fall semester.**

8.2.1.1 Format of the Dissertation Proposal and Presentation

The student prepares and submits a written Dissertation Proposal that describes his or her current and proposed research that will be part of their Ph.D. dissertation. The written proposal should focus on providing an introduction to the student's current and proposed research with a focus on the broader context. It could be an early draft of the student's Ph.D. thesis Introduction. The length should not exceed 15 pages, excluding figures and references.

The Dissertation Proposal Presentation is a public oral presentation, lasting 45-60 minutes, given by the student to the Advisory Committee members and invited guests in the Columbia/Lamont community. It should present the student's Ph.D. dissertation topic, focusing on the proposed work.

Immediately after the presentation, the student and his or her Advisory Committee meet to discuss and refine the proposed research plan and timeline. The Dissertation Proposal and Presentation is not an examination, but rather a milestone and advising opportunity. The student's Advisory Committee will assess the feasibility of the proposed research plan and provide written comments. The committee may require revisions to the Dissertation Proposal before certifying that the Dissertation Proposal and Presentation requirement has been completed.

To certify that the requirement has been completed, the committee must sign the Report of the Dissertation Proposal Committee form (Protocol 14) and the advisor must return this form the DEES Department Office. The advisor must also send the DEES Department notice of Completion of the Dissertation Proposal (Protocol 13). Once the form and the notice of completion have been submitted to the Department Office, the Department will send the Report of the Dissertation Proposal Committee form to GSAS.

8.3.2 The Dissertation Defense

In preparation for the Dissertation Defense, the Ph.D. Student must alert the Department Office that he or she is ready to submit a draft of the dissertation to the main adviser for approval to defend (Protocol 16). At this time, the adviser should send the names and affiliations of the five defense committee members (see The Dissertation Defense Committee section below), who have all agreed to be on the committee, to the Department Office. The adviser may request revisions before approving the draft thesis. Once the adviser approves, the advisor must alert the Department Office that he or she has approved the draft be sent to the critical readers. Approval must be obtained from the critical readers who are usually the other two members of the student's advisory committee who will also be examiners on the defense committee. After the critical readers approve the draft, the dissertation is distributed to the last two examining committee members. The advisor must notify the Department Office that the student has ***distributed*** the draft to the last two examiners.

Students must be registered for the semester in which their distribution takes place. This is the student's final semester of registration, even if his or her defense and deposit take place in a subsequent semester. More detailed information about final registration requirements can be found in the GSAS Student Guide. International students with questions about their registration and remaining in visa compliance should contact the International Students and Scholars Office (ISSO).

Once the Department Office has received notice that the student has distributed, the Department Office will send the Application for the Dissertation Defense to the GSAS (Protocol 17). This ***must*** be done ***at least*** 3 weeks before the Dissertation Defense date.

8.3.2.1 The Dissertation Defense Committee

The Dissertation Defense Committee is chosen by the advisor and consists of three members (including the advisor) who are inside examiners and two additional members, one of whom (but preferably two) must be considered an outside examiner. Students should discuss with their advisor the appropriate composition of the five-person examining committee. Guidelines for the nomination and appointment of the defense committee are available in the GSAS Student Guide. Any questions about committee composition should be directed either to your chair, DGS, DAAF, or to the Dissertation Office. Please note that GSAS policy states that students should not be put in the position of approaching faculty members about serving on their committee. This is the responsibility of the sponsor and/or department. The five-member Defense Committee must be approved by the DEES Department Office and DGS.

8.3.2.2 The Defense

The morning of the student's Dissertation Defense, the student's advisor or the Chair of the committee must pick up the student's Blue Dissertation Folder from the DEES main office. This folder contains all the materials and forms needed for the defense.

DEES has a tradition of conducting “open” defense presentations in addition to the required ‘closed’ defense. If the candidate for a defense *and* all members of the Defense Committee choose to have an “open” defense, the following will apply:

- During the public part of the exam, the candidate will have a maximum of 40 minutes to present major conclusions of the dissertation research, with at least half of the time devoted to a description of new findings or insights in the field discussed that directly resulted from research by the student. Questions following the initial presentation are permitted for a maximum of 10 minutes. Any member of the University community or other interested parties can attend this part of the defense. The defense committee may not ask questions during the open portion of the defense.

- The second part of the exam begins with the defense committee questioning the candidate in closed session for a period of up to 90 minutes. Its purpose is to verify that the Ph.D. Student's research has met the Department's high standards and that the candidate is well-able to explain the work, justify underlying assumptions, and convince the committee that the results are well-founded and significant.

- The candidate is then excused and the Defense Committee votes using the official GSAS vote form located in the Blue Dissertation Folder

If the candidate *or* one or more members of the Defense Committee prefer, the procedures for “closed defense” (i.e., 20-minute oral presentation followed by questions from the Defense Committee in closed session for a period of up to 90 minutes) will be followed.

More information on GSAS rules for Defense and Evaluation can be found in the GSAS Student Guide.

8.3.3 Ad Hoc Policy on Appealing Results

A Ph.D. Student has no right to appeal the results of his or her Dissertation Defense. The Dissertation Committee has the sole responsibility to determine whether the student has passed or failed the Ph.D. Dissertation Defense. In performing these duties, the committee is required to exercise good professional judgment, adhere to the relevant procedures and to cover the appropriate type and level of material. No Ph.D. Student who receives an outcome of fail may have a second defense unless the Dean considers, upon the evidence provided, that the first one involved procedural irregularities.

8.3.4 Dissertation Revisions

The Ph.D. Student who has passed his or her Dissertation Defense must see to any minor revisions in light of comments made by the Defense Committee. Students who receive a vote of "approved pending revisions" are given a maximum of six months to complete these revisions and deposit their dissertation. Usually, the Ph.D. Student does not need to seek approval from the Defense Committee for minor revisions, provided the approval card is signed by the Advisor and DEES Chair or DGS. The Defense Committee, however, reserves the right to review those revisions.

8.3.5 Depositing the Dissertation

Upon completion of the required revisions, the Ph.D. Student must obtain approval to deposit his or her dissertation. This is done using the Blue Approval Card, given to the student upon passing

his or her defense. The card must be signed by the student's Advisor, as well as by the department chair or DGS. These signatures allow the student to deposit his or her dissertation.

For complete information regarding the deposit and to review the FAQs about the electronic deposit system, see the Deposit Gateway.

9. Program Timeline

Students should use the timeline below to plan each semester and as a way of looking ahead at what to anticipate and plan for in the coming semesters.

9.1 Program Timeline for Students

Milestones

YEAR ONE	
Student's Advisor selects two additional advisory committee members for the student's 1st year Advisory Committee	
Fall Term	
Students have Advisory Committee Meeting	
Students register for courses with the approval of the Registration Professor (DGS)	
Spring Term	
Students have Advisory Committee meeting	
Students review membership of Advisory Committee and request changes if desired	Protocol 1 and 2
Students register for courses with the approval of the DGS	
YEAR TWO	
Fall Term	
Students have Advisory Committee meeting	
Students register for courses with the approval of the Registration Professor (DGS)	
Students must have 2 Residence Units before being eligible to apply for M.A. degree	
Students submit Application for the Master's Degree to GSAS	Protocol 10
Spring Term	
Students have Advisory Committee meeting	
Students register for courses with the approval of the Registration Professor (DGS)	
Qualifying Exam Paper submitted to Department office no later than the Midterm date	

Qualifying Exam
After requirements laid out in Qualifying Exam have been met, Advisor submits Certification that Master's Requirements have been Satisfied to Department Office Protocol 11
Students complete 30 coursework credits
Award of M.A. Degree
YEAR THREE
Fall Term
Students have Advisory Committee meeting
Students register for courses with the approval of the Registration Professor (DGS)
Spring Term
Students have Advisory Committee meeting
Students register for courses with the approval of the Registration Professor (DGS)
Students must submit their Dissertation Proposal to the Department 2 weeks before their scheduled proposal and presentation
Dissertation Proposal, must be completed by end of Spring term
The Advisor submits confirmation of the completion of the Dissertation Proposal to the Department Office Protocol 13
The Department Office submits the Report of the Dissertation Proposal to the GSAS Protocol 14
YEAR FOUR
Fall Term
Students have a Dissertation Progress Meeting with Advisory Committee
Students submit Report on Progress to the Department
Spring Term
Students have a Dissertation Progress Meeting with Advisory Committee
Students submits Report on Progress to the Department
Students complete 45 credits of coursework
Student completes GSAS Instructional Requirement
Department Office submits the Application for M.Phil. on behalf of the student. Must be completed by May of the student's 4 year of registration Protocol 15
Award of M.Phil, *must be awarded by May of 4th year to remain in "good standing"*
YEAR FIVE
Fall Term
Students have a Dissertation Progress Meeting with Advisory Committee
Students submit Report on Progress to the Department
Spring Term
Students have a Dissertation Progress Meeting with Advisory Committee

Students submits Report on Progress to the Department
Students submit a Notice of Approaching Dissertation Defense to Department Office Protocol 16
Students **Distribute their Dissertation** to the final committee members (The distribution term will be the last semester of registration for the student regardless of how long it takes to defend and deposit)
The Application for the Dissertation Defense must be completed and sent by the Department Office to the GSAS no later than 2 weeks before the scheduled Dissertation Defense Date Protocol 17
Students **Defend their Dissertation**
Students **Deposit their Dissertation** once all revisions have been made
Students are awarded the Ph.D.

10. Financial Assistance and Support

10.1 Academic-Year Financial Support

The term "academic year" (AY) refers to the September 1 through May 31 time period that includes the Fall and Spring semesters.

DEES Ph.D. students are admitted with a guarantee of five years of financial support, contingent upon maintaining good academic and administrative standing. The support package includes an annual stipend, full tuition, health services, medical insurance, university facilities fees and, if applicable, the international student service charge.

Academic-year funding is provided via a combination of fellowships from the Graduate School of Arts & Sciences, grants to student Advisors, and external fellowships secured by the Ph.D. students. In DEES, the GSAS fellowships generally cover the student's first term and their two teaching terms, while the other terms are covered by external fellowships and/or advisor grants. If a Ph.D. Student requires more than five years to graduate, they may remain funded on Advisor grants or external fellowships. If necessary, a Ph.D. Student's Advisor can petition the Department for a sixth year of funding. Such requests are honored when possible, but are contingent on the Department having enough funds. Support for a seventh year and beyond should *not* be expected by *any* student,

In any given semester, the financial support received by a Ph.D. Student comes from either a *Teaching or Research Fellowship* or a *Graduate Research Assistantship (GRA).* A GRA provides compensation for assisting in a specific research project, and typically originates from a grant or contract that Columbia has with the US Government or a private company. The process of applying for research grants and contracts to fund students is the responsibility of the Advisor, who then becomes its *Principal Investigator* (PI) or Co-Investigator (Co-I), in charge of overseeing its successful completion. A Ph.D. Student funded through a GRA will have some part-time responsibilities specific to the research grant or contract, as determined by its PI, however, they are usually synergistic to his or her dissertation research. Both fellowships and GRA appointments carry with them a full scholarship. Whatever a Ph.D. Student's source of support,

he or she is expected to become increasingly involved in research over time in conjunction with DEES and GSAS requirements.

GSAS requires all doctoral students to apply for at least one external fellowship within their first four years of study. External fellowship awards help students remain funded for additional semesters, develop grant-writing skills, and enhance their curriculum vitae for their subsequent job search. External fellowships significantly reduce the financial burden on the University and the individual scientists who must raise student funding through grant-writing efforts, and hence are a valuable component of the Department's total graduate funding portfolio. The fellowships are desirable even when the announced stipend is less than Columbia's rate. During Years 1-5 of the student's program, the University will provide the funds necessary to bring a lesser fellowship up to the amount of current University fellowships and will add a little extra to reward the student for obtaining external funding. Students should discuss external fellowship opportunities with their Advisory Committees. More information on external fellowships can be found in the GSAS Student Guide.

10.2 Summer Research Support

The term "summer" refers to the period of June 1 through August 31. DEES Ph.D. Students are expected to use the summer months to further their dissertation research and DEES guarantees that every Ph.D. Student in good standing will receive 3 months of summer support for 5 years. The source of that support is expected to come from the Advisor's research grants and contracts or external fellowships. Some students perform their summer research while on industry internships. If a student has no summer funding, their advisor must petition DEES for backstop support. More information on summer funding along with summer funding opportunities can be found in the GSAS Student Guide.

10.3 External Funding

All Ph.D. Students are strongly encouraged to apply for external funding (e.g. NSF and NASA graduate fellowships). External fellowships provide valuable experience, confer prestige on the student and DEES, stretch University fellowship funds, and perhaps most importantly, allow the student to pursue funded research topics of their own choosing. For more information on GSAS External Fellowships see the GSAS Student Guide. GSAS External Fellowship Policy information can be found here. For a list of upcoming funding opportunities see the GSAS Student Guide.

10.4 Research and Educational Support

Funds to support a student's Ph.D. research (lab equipment and supplies, field support, travel to scientific meetings to present research results, etc.) are normally the responsibility of the Advisor.

The Department provides each full-time Ph.D. Student in good standing with a research allowance of $1000 per year for their first five years. These funds are intended to help students finance research needs that their advisor cannot. The funds can be used for any Ph.D. research-related purpose: to attend special meetings, travel for fieldwork, conduct analyses, purchase computers or equipment, etc. More information on DEES Ph.D. Student Research Allowance Policy and Procedures can be found here.

10.5 Student Loan Fund

The Rose Marie Cline Student Loan Fund was established in honor of her retirement in 1993 by her friends and colleagues at Lamont. The purpose of the fund is to provide a modest amount of monetary assistance "for students in sudden and unexpected financial need." Loans are to be repaid "on a student's honor." Applications are available in the DEES office (106 Geoscience,

LDEO). Larger student loans may be available via the Graduate School Dean's Office in extreme emergencies, as are Federally-funded Guaranteed Student Loans. Contact the Dean's Office (107 Low Library) to apply for either type of loan.

11. Student Life

11.1 Student Governance

Ph.D. Students have many opportunities to join committees of the Department and its affiliated institutions and are encouraged to participate in this form of University governance.

11.1.1 The LDEO Colloquium Committee

The LDEO Colloquium Committee, which selects speakers for the weekly Earth Science Colloquium Series (sponsored by Lamont-Doherty Earth Observatory and DEES), is among the many with historically strong student participation. More information on the Earth Science Colloquium Series can be found here.

11.1.2 The Graduate Student Committee (GSC)

The Graduate Student Committee (GSC) is an independent, student-led organization in our department that provides a forum for students to address issues of mutual concern as well as organize social events. The GSC serves as a liaison between the graduate student body and department faculty. Leaders are elected and all students are welcome to participate in GSC activities. More information on the GSC can be found here, on the DEES website.

11.1.3 The Campus Life Committee

The Campus Life Committee at LDEO reviews and recommends improvements to policies, procedures, and facilities pertaining to the general quality of daily life for all staff members on the Lamont Campus. More information on the Campus Life Committee can be found here.

11.2 Housing

Columbia University owns and directly manages residential units near the Morningside Heights campus and the Health Sciences campus in Washington Heights. Some of these units are available to graduate students through University Apartment Housing (UAH), though supply is limited. The UAH inventory consists of apartment shares and dormitory-style rooms. There are also a limited number of studio/efficiency, one-bedroom, and two-bedroom units prioritized for couples and families. All information on Graduate Housing can be found on the GSAS website. Note: Eligibility for University housing may also change after five years. More information on eligibility can be found here, on the Columbia University Facilities website.

11.3 Health Insurance

Information on health coverage specific to GSAS can be found here, in the Graduate Life section of the GSAS website. New students should also refer to the GSAS New Student Checklist and click on "Understand Your Columbia Health and Student Medical Insurance Options".

For more general information on Columbia Health can be found here, on the Columbia Health website.

11.3.1 Health Insurance for defending students

Student medical insurance policies run from August 15 – December 31 for Fall term and from January 1 – August 14 for the combined Spring/Summer terms. Unfortunately, there is currently no medical insurance extension that can be purchased through Columbia to extend these periods

for students who will not be registering in the subsequent term. Students should anticipate this when planning distribution and defense dates at the end of Summer and Fall terms. Students who lose coverage August 14 (or Dec 31st) of their defending year, may look into individual medical insurance through private insurance companies or state-based health insurance under the exchanges through www.healthcare.gov

11.4 Time Off

DEES does not provide vacation time, *per se*, but recognizes that Ph.D. Students need to take modest amounts of time off for relaxation and family matters. Students are expected to obtain the permission of their advisors for all such absences, and advisors are expected to allow them, within reasonable limits.

The DEES/Lamont community standard that guides advisor-advisee discussions and agreements about time off is significantly more liberal than the GSAS minimum and reflects a presumption that our graduate students are able to manage their time, research, and progress towards the Ph.D. responsibly.

The GSAS policy, listed below, spells out the bare minimum at Columbia. ***It does not replace the existing DEES "within reason" policy.***

11.4.1 GSAS Time Off Policy

For full-time doctoral students on twelve-month research and teaching appointments in the sciences and related fields, the period between the fall and spring semesters, as well as the summer months, are considered to be active time of research, research training, and teaching preparation rather than holidays. However, in any given academic year (September 1st – May 31st), students are entitled to two weeks (ten weekdays) beyond the eleven (Morningside Campus) designated University/Federal holidays. For more information on the GSAS Time-Off Policy for Doctoral Students and for a list of university designated holidays, see the GSAS Student Guide.

Time off during the designated University/Federal holidays listed in the guide is non-negotiable. Students should plan to take the remaining time-off days to which they are entitled after coordinating with a) their advisor or PI when holding a research appointment; and/or b) the faculty instructor or lead course coordinator when holding a teaching appointment. This will ensure that the requested time off does not conflict with the responsibilities attendant to the research enterprise or the course.

11.5 Professional Development

Information on Professional Development Resources including the below can be found in the GSAS Student Guide:

- Career Support
- Professional Development Programs
- Funding to Attend Conferences
- Developing Job Search Documents and a Portfolio
- Mapping Your Career Journey
- Networking

DEES also receives (and forwards by email) announcements of teaching and research opportunities at academic institutions and research opportunities with companies engaged in environmental research and petroleum/mineral exploration.

Corporate recruiters regularly visit Columbia to give presentations and to interview candidates. Interviews on the Morningside Campus are arranged by CCE and on the Lamont Campus by the office staff of the relevant LDEO research division.

12. Challenges and Conflicts

Scientific, educational, administrative and social problems are not uncommon in any Ph.D. program. Interpersonal conflicts, though less common, can develop between two Ph.D. Students or between a Ph.D. Student and a member of the staff. Every effort should be made to resolve problems and conflicts early, as they often worsen with time. The University makes available a variety of resources to help Ph.D. Students resolve conflicts and deal with the problems that they encounter; everyone is encouraged to fully utilize them. The Graduate Program Manager is a good first resource and students are welcome to start there for assistance and direction to other resources. The Director of Graduate Studies and the DEES Chair are also resources in DEES where students can seek resolution of any issues.

In scientific and educational matters, a Ph.D. Student's first resource is his or her Advisor and the other members of his or her advisory committee. Ph.D. Students should feel free to discuss problems with them and are also free to approach other members of the scientific staff and other students for advice. In cases where a greater degree of confidentiality or distance is warranted, the Ph.D. Student may wish to meet with the Director of Graduate Studies or any member of the Graduate Program Committee. Ph.D. Students are also welcome to discuss, on a confidential basis, problems with the DEES Chair or Associate Chair.

In administrative matters, a Ph.D. Student's two most important resources are the DEES Department Office and the comparable administrators at their Affiliated Institution. The latter are called Division Administrators (DAs) at LDEO; their titles at other institutions vary. These administrators often will be able to solve the problem directly, and when they can't, will usually be able to advise the student of other resources or how to better approach it.

12.1 The Ombuds Office

The Ombuds Office offers a confidential place to discuss workplace issues, academic concerns, issues relating to administrative paperwork and process, explanation and interpretation of policies and procedures, and many other issues or concerns. Students can speak freely to The Ombuds Office because they promise to keep discussions confidential and are not part of any formal University process. The Ombuds Office does not take sides in disputes and operates independently of the Columbia administration, reporting only to the president.

12.2 Responding to Misconduct

Columbia University is committed to fostering an environment that is free from discrimination and harassment, including sexual assault and all other forms of gender-based misconduct. Under University policies, these types of behaviors include discrimination, discriminatory harassment, sexual harassment, sexual assault, gender-based harassment, stalking, and intimate partner violence. More information and resources regarding the University's Policy can be found here. The University encourages everyone to become familiar with the types of behaviors that constitute

misconduct. Ph.D. Students who feel that they are the victims of discrimination, harassment, or gender-based misconduct are encouraged to take immediate steps to ensure their continued health and safety and to report the incident.
See: http://studentconduct.columbia.edu/gbm.html and https://sexualrespect.columbia.edu

University employees, including DEES faculty, technical and administrative staff and TAs, play an important role in stopping discrimination, harassment, and gender-based misconduct. Employees who learn of suspected instances of this type of behavior, directly or indirectly, have a duty to report the information immediately to the Office of Equal Opportunity and Affirmative Action (EOAA). This duty to report takes precedence over requests for confidentiality, even those made by the victim.

13. Life After Columbia

13.1 The Graduation "Exit" Interview

The Graduation "Exit" Interview is an opportunity to report on your experience in the program. The purpose of the interview is to collect information about the performance of aspects of the Ph.D. program from the perspective of graduating students, and to use the information to identify those elements of the Ph.D. program that are working well, as well as those that need attention and improvement.

As soon as possible after a successful defense, students should meet with a member of the Graduate Program Committee or the Graduate Program Manager to conduct an exit interview.

13.2 Stay in Touch

DEES loves to keep in contact with its former students. We'd like former Ph.D. Students to send the Graduate Program Manager an email once a year or so. Tell us how you're doing, where you are, and provide a current email address. We are also eager to have alumni who are willing to talk with current students, to advise on career opportunities, overcoming hurdles on the way to a Ph.D., etc. Let us know if you're willing!

13.3 Lamont-Doherty Alumni Association

Former Ph.D. Students with links to LDEO should be aware of its alumni association, which fosters communications and interactions among its members.

14. Protocols

*Note that Protocol numbers have been updated from the 2018 Student Guide.

Protocol 1: Request to Change Advisor

Initiator: The Ph.D. Student

Preparation:

1. You are strongly urged to have discussed this matter informally with either the DEES Chair or the Chair of the Graduate Program Committee before filing a formal request. A preliminary discussion with the Graduate Program Manager may be helpful and is encouraged.
2. You must have identified a prospective new Advisor and he or she must have agreed to serve.
3. You must have had a meeting with your Advisory Committee (possibly attended by your prospective new Advisor) in which the proposed change was discussed and approved. (Cases where one or more members disagree are considered unusual, and are handled on an *ad hoc* basis by the DEES Chair. Please bring such a case directly to the attention of the DEES Chair).
4. If your prospective new Advisor did not attend the meeting in 3), you must have had a separate meeting with him or her in which you broadly discuss your educational and research plans.

Email Template:

To: Chair of the Graduate Program Committee (GPC)
Fr: Ph.D. Student
Cc: Graduate Program Manager
DEES Chair
DEES Associate Chair
Current members of Advisory Committee, including Advisor
Proposed New Adviser
Other mentors (if any)
Subject: Request to Change Advisor

Content of memo:

1. Reason(s) for wanting to change Advisor.
2. The assertion that your current committee and prospective Advisor agree with the change.
3. Description of the meetings(s) with your Advisory Committee and your prospective new Adviser in which you identify any advantages and disadvantages of the proposed change that were discussed.
4. Discussion of how this change is likely to affect your anticipated graduation date.

Attachment(s) to memo:

1. Letter from current Adviser stating that he or she, together with the rest of the Advisory Committee, agree to the change.
2. Letter from the prospective new advisor, indicating a willingness to serve. This letter should also indicate whether any funding issues are likely to arise.

Review Process:

Upon receipt, the GPC chair should forward copies to all members of that committee.

Upon approval/denial, the GPC chair should notify Ph.D. Student, and should cc the Graduate Program Manager, the members of the GPC, and all the individuals on the original cc list.

Protocol 2: Request to Add or Change Second or Third Member of Advisory Committee

Initiator: The Ph.D. Student

Preparation:

1. You must obtain the prospective member's agreement to serve.
2. You are strongly urged to have discussed the change with the members of your current Advisory Committee (possibly attended by your prospective new member).
3. If your prospective new member did not attend the meeting in 2), you must have had a separate meeting with him or her in which you broadly discuss your educational and research plans.
4. If the proposed member is replacing a current member, you should be sure to thank that member for their efforts.
5. Although you have discretion in choosing the second and third members of your Advisory Committee, you must nevertheless ensure that at least one member of your committee is a DEES Professor (of any rank, either regular or Adjunct).

Email Template:
To: Graduate Program Manager
Fr: Ph.D. Student
Cc: Current members of Advisory Committee, including Advisor
Proposed New Member

Subject: Request to Add or Change Second or Third Member of Advisory Committee

Content of memo:

1) Name, affiliation and contact information of proposed member.
2) Reason why proposed change benefits your program.
3) Name of person who the proposed member replaces (if any).
4) Demonstrate that you have at least one DEES professor (of any rank, either regular or Adjunct) on your committee by identifying all of them on your committee.

Attachment(s) to memo:

1) Letter from prospective member agreeing to serve.

Review Process:

As the Ph.D. Student has the right to choose the second and third members of his or her committee, the Graduate Program Manager need only check that the proposed person meets the Department's requirements for Advisory Committee Members, and that, after the change, the committee still has at least one DEES professor (of any rank, either regular or Adjunct), and then record the change. The Graduate Program Manager can then notify the Ph.D. Student that the change has been approved, cc'ing all the individuals on the original cc list.

Protocol 3: Request to Review an Entrance Deficiency

Initiator: The Ph.D. Student

Preparation:

1. You must have identified the Entrance Deficiency that you believe was erroneously identified at the time of admission.
2. Working from your undergraduate or graduate transcripts, you must identify the particular course which you believe satisfies the deficiency.
3. You must make the case that the course satisfies the deficiency.
4. You must discuss the matter with your Advisory Committee and they must agree that the course satisfies the deficiency.
5. If any of the courses that you are putting forward for consideration uses a non-letter grading scheme, you should provide evidence that your grade meets the B or better standard.

Email Template:

To: Chair of the Graduate Program Committee (GPC)
Fr: Ph.D. Student
Cc: Graduate Program Manager
Members of Advisory Committee, including Advisor
Subject: Request to Review an Entrance Deficiency

Content of memo:

1. List of your Entrance Deficiencies, as stated on your letter from the Admission Committee, any courses you have already taken that satisfy them, and your plan to satisfy the rest.
2. Identify the particular Entrance Deficiency that you think was erroneously identified.
3. Identify the specific undergraduate course that you believe satisfies the deficiency, by providing:
    A. Name and Number of the course
    B. Institution at which the course was taken
    C. Year and Semester that the course was taken
    D. Credits
    E. Your Grade (only grades of B or better are acceptable)
4. Discuss why you think the course satisfies the deficiency.

Attachment(s) to memo:

1. Letter from your Advisor stating that your Advisory Committee concurs with your request.
2. Any material that will assist the GPC to make the determination, such as the course description from the institution's course catalog.
3. (If relevant and if available) Official description of how to convert grades to Columbia's letter system.

Review Process:

The GPC reviews the Ph.D. Student's official undergraduate transcript and his or her letter of admission.

Upon approval/denial, the GPC Chair notifies Ph.D. Student, and should cc the members of the GPC and all the individuals on the original cc list.

Protocol 4: Request to Substitute a Course to Remove an Entrance Deficiency

Initiator: The Ph.D. Student

Preparation:

1. Note: Use Protocol 3 for courses taken prior to your entering the Ph.D. Program.
2. You must have identified the course and noted its number, full name and instructor;
3. You must have discussed the proposed substitution with your Advisory Committee and they must have approved it.

Email Template:
To: Chair of the Graduate Program Committee (GPC)
Fr: Ph.D. Student
Cc: Graduate Program Manager
Members of Advisory Committee, including Advisor

Subject: Petition to Substitute a Course to Remove an Entrance Deficiency

Content of memo:

1. A list of all your Entrance Deficiencies, and the ways in which you have – or plan to- satisfy them.
2. The proposed substitution, including course (its number, full name and instructor) and specific deficiency it is proposed to satisfy.
3. Discussion of why you think this substitution is appropriate.

Attachment(s) to memo:

1. Letter from your Advisor stating that your Advisory Committee approves the substitution.

Review Process:

Upon receipt, the GPC chair forwards copies to all members of that committee.

Upon approval/denial, the GPC chair notifies Ph.D. Student, and should cc the members of the GPC and all the individuals on the original cc list.

Protocol 5: Request to apply non-DEES graduate level course credits towards the 45 credit requirement

Initiator: The Ph.D. Student

Preparation:

1. You must have identified the course and noted its number, full name and instructor, and course description
2. You must have discussed the proposed course with your Advisory Committee and they must have approved it.
3. This conversation and process should occur before registering for the course.

Email Template:
To: Director of Graduate Studies
Fr: Ph.D. Student
Cc: Members of Advisory Committee, including Advisor
Graduate Program Manager

Subject: Request to apply non-DEES course credits to 45 credit requirement

Content of memo:

1. Identify each course that you would like to be given credit for and note the institution and department in which it was offered, its number, full name and instructor, and course description.
2. Include a statement that you have discussed the substitution with you Advisor and Advisory Committee, and that they approve.

Review Process:

The Director of Graduate Studies notifies the Ph.D. Student that the course has been approved or denied, cc'ing all the members of original cc list.

Protocol 6: Request to Take a Course on an R-Credit Basis

Initiator: The Ph.D. Student

Preparation:

1. You must have identified the course, including number, name and instructor.
2. You must have the permission of the course instructor to take the course on an "R" credit basis.
3. You must have discussed the matter with your Advisory Committee, and they must have approved it.
4. Your request must be submitted at the *beginning* of the term, before the GSAS deadline, which is listed on the Academic Calendar.

Email Template:
To: Graduate Program Manager
Fr: Ph.D. Student
Cc: Members of Advisory Committee, including Advisor

Subject: Request to take a Course on an R-Credit Basis

Content of memo:

The course (including name, number and instructor) you propose to take for R credit.

For information on how to register for R credit see: https://gsas.columbia.edu/student-guide/policy-handbook/grading-system

Protocol 7: Request for a Leave of Absence

Initiator: The Ph.D. Student

Preparation:

1. If you are in the midst of an emergency, ATTEND TO THAT EMERGENCY FIRST. Then, as soon as is feasible, alert the DAAF or the Graduate Program Manager to your situation.
2. You should consider discussing your situation with the DAAF, Graduate Program Manager, Advisory Committee and/or the DEES Chair before formally requesting a Leave of Absence.

Email Template:

To: Graduate Program Manager
Fr: Ph.D. Student
Cc: DEES Chair
Director of Graduate Studies
Director of Academic Administration and Finance
Members of Advisory Committee, including Advisor

Subject: Request for a Leave of Absence

Content of memo:

1. The compelling reason why you need a leave of absence, such as sustained ill health (physical or mental), personal, maternity/paternity, or national service.
2. The proposed length of the Leave of Absence.
3. Discussion of how the leave is likely to impact your academic plans and obligations.

Attachment(s) to memo:

1. Any documentation that might serve to document the compelling nature of your request.

Review Process:

Upon receipt, the Graduate Program Manager refers the matter to the Department Chair for action.

Upon approval/denial, the Department Chair notifies Ph.D. Student, the Graduate Program Manager and all the individuals on the original cc list.

Notifying GSAS:

Students must also notify GSAS by submitting the Leave of Absence Form to gsas-studentaffairs@columbia.edu

Protocol 8: Request for a Time Extension

Initiator: The Ph.D. Student

Preparation:

1. You need to identify the specific deadline that you want extended and understand how that extension is likely to impact your overall schedule.
2. Since Ph.D. Students are expected to meet deadlines, you must be prepared to offer a substantial reason why a particular deadline should be extended in your case.
3. You should discuss the matter with your Advisory Committee and obtain their agreement that an extension is reasonable in your case.

Email Template:
To: Chair of the Graduate Program Committee (GPC)
Fr: Ph.D. Student
Cc: Graduate Program Manager
Members of Advisory Committee, including Advisor

Subject: Request for a Time Extension

Content of memo:

1. The deadline you want extended, and the proposed date by which you will be expected to have fulfilled the underlying requirement.
2. The substantial reason you need an extension.
3. The likely effect of the extension on your schedule.

Attachment(s) to memo:

1. A letter from your Advisor, saying that your Advisory Committee has approved the matter and which identifies any financial impact that the extension might have.

Review Process:

Upon receipt, the GPC Chair should forward the request to the other members of the committee. The GPC has authority to grant extensions at its discretion, except for extensions to the overall time limit rules, which must be referred to the Department Chair for possible consideration by the Dean.

Requests for an extension of the deadline for the Qualifying Exam or the Dissertation Proposal should be approved only for a compelling reason related to an extenuating circumstance.

Upon approval/denial, the GPC chair should notify the Ph.D. Student, the Graduate Program Manager and all the individuals on the original cc list

Protocol 9: Request for Transfer Credit

Initiator: The Ph.D. Student

Note: Transfer Credits are only conferred after you complete two semesters at Columbia with satisfactory academic performance (at least a B+ average).

Preparation:

For Transfer Credit:

1. Starting with copies of your undergraduate and external Masters program transcripts, you must construct a list of all external *graduate* courses that you want considered for Transfer credit and determine their point value.
2. You must check that the total number of credits you are requesting does not exceed 15.
3. If you took any of these graduate courses as an undergraduate (or the international equivalent of an undergraduate), you must establish that you had enough credits to fulfill your undergraduate degree requirements without counting them.
4. You should check that official copies of all relevant transcripts are already on file in the Department office. If any are missing, you must provide them.

Email Template:

To: Director of Graduate Studies (Chair of the Graduate Program Committee)
Fr: Ph.D. Student
Cc: Graduate Program Manager
Members of Advisory Committee, including Advisor
Subject: Request for Transfer Credit
Content of memo:

For Transfer Credit:

1. A list of graduate courses for which you are requesting Transfer Credit, accompanied by the following information:
    A. Name and Number of the course, and the course description and syllabus if available
    B. Institution at which the course was taken
    C. Year and Semester that the course was taken
    D. Credits and your Grade (only grades of B or better are acceptable)
    E. Whether you took the course as an undergraduate or graduate student.
    F. Why the course should be considered relevant to your current Ph.D. program.
2. The total number of credits you are requesting, not to exceed 15.
3. If you took any of these graduate courses as an undergraduate, you must establish that you had enough credits to fulfill your undergraduate degree requirements without counting this course.
4. If any of the courses that you are putting forward for consideration uses a non-letter grading scheme, you should provide evidence that your grade meets the B or better standard.

Attachment(s) to memo:

1. A copy of the GSAS Transfer Credit form, at: https://gsas.columbia.edu/sites/default/files/inline-files/GSAS-transfer-credit_0.pdf with the top part filled out and signed.

2. Official transcripts not already on file in the Department Office.
3. If your former institution used a non-letter grading scheme, an official description of how to convert grades to Columbia's letter system.

For Transfer Credit:

4. If you are asking for credit for graduate courses taken as an undergraduate, excerpts from your undergraduate institution's literature that might help establish that these courses were in excess of your undergraduate degree requirements.

Review Process:

For Transfer Credit: The Graduate Program Committee must verify the Ph.D. Student's course list against the official transcripts, agree that they are relevant to the Ph.D. Student's program and check that the total number of credits requested does not exceed fifteen (15).

The request should only be granted when a review of the Ph.D. Student's Columbia transcript verifies that he or she has maintained a B+ level or above during the first two semesters in DEES. The Director of Graduate Studies then fills out and signs the bottom part of the GSAS form and forwards the case to the Graduate School for final approval. Note that the number of Residence Units must be either 0 or 2 and the number of Transfer Credits may be no more than 15. The Graduate Program Manager then notifies the Ph.D. Student of GSAS's decision, cc'ing all the individuals on the original cc list.

Protocol 10: Application for Master's Degree

Initiator: The Ph.D Student

Timeline: The student should submit the Application for Master's Degree before his or her Masters Meeting in the Spring of their 2nd year.

The Application for Master's Degree is submitted to GSAS Registrar
http://registrar.columbia.edu/sites/default/files/content/degree-app-updated_nov-2015.pdf

Protocol 11: Certification that Masters Requirements have been Satisfied

Initiator: The Advisor

Preparation:

1. The Advisory Committee must agree that all requirements imposed as the result of the Masters Meeting have been satisfied.

Email Template:
To: Graduate Program Manager
Fr: Advisor
Cc: Ph.D. Student
Other members of Advisory Committee
Director of Academic Administration and Finance

Subject: Certification that Masters Requirements have been Satisfied

Content of memo:

1. Name of Ph.D. Student
2. Statement that all requirements imposed as the result of the Masters Meeting have been satisfied.

Attachment(s) to memo:

(none) Student should have submitted the application for degree certificate by the deadline specified by GSAS on their website.

Review Process:

The fact is recorded and the process of awarding the Masters Degree is begun.

Protocol 12: Nomination of Qualifying Exam Committee Members

Initiator: The Ph.D. Student

Preparation:

1. You must discuss your nominations with your advisory committee. All members of the DEES professorial staff (both full time and adjunct) and all LDEO Research Professors and their equivalents at other affiliated institutions are eligible for nomination, but postdoctoral research scientists and scientists visiting from other institutions are not.
2. You must be able to justify your nominations in terms of the expertise brought to the Examining Committee.
3. You must communicate your nominations to the Examinations Subcommittee Chair no later than six (6) weeks prior to your exam.

Email Template:
To: Examinations Subcommittee Chair
Fr: Ph.D. Student
Cc: Graduate Program Manager
Members of Advisory Committee, including Advisor

Subject: Nomination of Qualifying Exam Committee members

Content of memo:

1. Identify yourself and state your area of specialization.
2. Identify the members of your Advisory Committee.
3. Give the approximate date you expect to be examined.
4. Assert that your nominations are made in consultation with your Advisory Committee.
5. List up to four (4) nominations, their affiliation and contact information (including email).
6. Describe the rationale for each nomination and especially whether the person has expertise relevant to your area of specialization.

Review Process:

The nominations are advisory only. The Examinations Subcommittee should give them serious consideration but is not required to use them.

Protocol 13: Completion of Dissertation Proposal

Initiator: The Advisor

Preparation:

1. The Advisory Committee must attend the Ph.D. Student's Dissertation Proposal.

Email Template:
To: Graduate Program Manager
Fr: Advisor
Cc: Ph.D. Student
Other members of Advisory Committee
Director of Academic Administration and Finance

Subject: Completion of Dissertation Proposal

Content of memo:

1. Name of Ph.D. Student.
2. Statement that Advisory Committee has attended the Ph.D. Student's Dissertation Proposal, and the date on which it was held. Advisor should state if the Dissertation Proposal was satisfactory and if the student should be awarded the M.Phil. If there are any conditions the student must complete, they should be noted.

Attachment(s) to memo:

(none)

Review Process:

(none)

Protocol 14: The Report of the Dissertation Proposal Committee

Initiator: DEES Department Office

Timeline: To be submitted to GSAS upon completion of the students' Dissertation Proposal

The Report of the Dissertation Proposal Committee form found here: http://www.columbia.edu/cu/arthistory/graduate/Ph.D.-forms/dissertation-proposal-committee-2017-18.pdf

Protocol 15: The Application for the Master of Philosophy (M.Phil)

Initiator: DEES Department Office

To be submitted to GSAS after student has completed all requirement.

The Application for the Master of Philosophy (M.Phil) form found here:
https://gsas.columbia.edu/sites/default/files/GSAS-master_phil_app.pdf

Protocol 16: Notification of Approaching Ph.D. Defense

Initiator: The Ph.D. Student

Preparation:

1. Prepare this memo after you've submitted what you think is the final copy of your thesis to your advisor for possible approval to defend.

Email Template:
To: Graduate Program Manager
Fr: Ph.D. Student
Cc: Members of Advisory Committee, including Advisor

Subject: Notification of Approaching Ph.D. Defense

Content of memo:

1. Your dissertation title
2. State that you've submitted what you think is the final copy of your thesis to your Advisor for possible approval to defend.

Attachment(s) to memo:

(none)

Review Process:

(none)

Protocol 17: Application for the Dissertation Defense

Initiator: DEES Department Office

Timeline: To be submitted by the Department Office to the GSAS **no later** than 2 weeks before the scheduled defense date.

Application for the Dissertation Defense form found here:
https://gsas.columbia.edu/sites/default/files/inline-files/GSAS-defense.pdf