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1. Introduction

This Guide has been prepared to help Ph.D. Students, advisors and administrative staff members understand the requirements and procedures of the Ph.D. Program in the Department of Earth and Environmental Science (DEES).

The program includes the Master's-level work that is performed along the road to a Ph.D. The term Ph.D. Student is used to indicate all students in this program, irrespective of whether they have completed their initial Master's-level training.

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 Ph.D. 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. Ph.D. 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).

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 also refer to the GSAS website on a regular basis.

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 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 idiosyncratic 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.

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

Graduate Program Coordinator: 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

DEES currently has one *technical staff* member, a Curator responsible for archiving the Schermerhorn-based collections of rocks, minerals and other teaching aids. Ph.D. Students assigned as TA's may need the Curator's assistance to access these collections.

Curator: Robina Simpson

Contact: Morningside - 554 Schermerhorn; 212-854-5029; res2@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. 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 PhD 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 all participate equally in DEES 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 research scientists at affiliated organizations (e.g., LDEO, AMNH, GISS and IRI) who are not formally affiliated with the DEES faculty. Many of these excellent scientists participate in the Ph.D. program, some as Advisors and others in more informal mentorship arrangements. Ph.D. Students are encouraged to get to know them, especially those in their own research specialties.

All of DEES's affiliated organizations (e.g., LDEO, AMNH, GISS and IRI) 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 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 who 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.

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 deficiencies.

Chairperson (2017-2018): Jerry McManus

Contact: LDEO – 239 Comer; 845-365-8155; mcmanus@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 choose their depth and two breadths, 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.

<u>Chairperson and Director of Graduate Studies</u> (2017-2018): Göran Ekström Contact: LDEO – 108l 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 Certifying Exam.

Subcommittee Chair (2016-2017): William Menke

Contact: LDEO – 203 Seismology; 845-304-5381; menke@ldeo.columbia.edu

3.2.2 The TA Subcommittee

The TA Subcommittee of the GPC decides which courses are eligible for teaching assistants, vets course prospectuses, assigns TA points to each course and sets overall TA policy. Individual TA assignments are made by the Graduate Program Coordinator with committee oversight.

Subcommittee Chair (2017-2018): 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 preapproved 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 jointly have the responsibility to stay in touch with one another and to hold regular meetings. Ph.D. Students have the responsibility to keep their Advisors

informed of their academic and research progress and of any problems that develop. Advisors have the responsibility 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 have a responsibility to actively seek grants and contracts that provide financial support for their Ph.D. Students through Graduate Research Assistantships (GRA's). 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: 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 include areas of sensitivity and concern such as:

- Promoting an environment that is intellectually stimulating and free of harassment;
- Being supportive, equitable, accessible, encouraging, and respectful;
- Recognizing and respect 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 **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 of 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, the Student requests any potential, appropriate membership changes to populate 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 Coordinator.

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 only in the rare case that a Ph.D. Student
 is not in residence at the University (e.g., working at an outside job while preparing his or
 her dissertation 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 <u>GSAS Student Guide</u>.

5.2 Registration

Registration is accomplished through Columbia's <u>Student Services Online</u> (SSOL). Early Registration for Summer and Fall Semester is in April and for Spring Semester is in November. 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, and enrolled student status are not interrupted.

At the start of each semester, Ph.D. Students should first report to the DEES Office (106 Geoscience, LDEO), where they will be given registration forms and instructions. The packet of material prepared for each Ph.D. Student in advance of registration contains forms to be completed after consultation with the Ph.D. Student's Advisor. The Advisor must sign off on the completed form. In cases where the Advisor is unavailable (e.g., due to travel), the Department Office will designate an alternative.

All students who have not yet taken their Certifying Exam (sometimes referred to as Pre-Orals Students) 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 <u>Registration Dates</u> page on the Registrar's website or the <u>Academic Calendar.</u>

5.3 Continuous Registration

Ph.D. Students are required to maintain continuous enrollment, registering for the appropriate residence status (RU or ER) each semester until they distribute their Ph.D. thesis to their 5-person Defense Committee. For more information on Continuous Registration see the <u>Registration Page</u> 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 Protocol8). 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 <u>Academic Calendar</u> in the GSAS Student guide as well as on the <u>Academic Calendar</u> 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 coursework with a B or better in Chemistry, Calculus, and Physics. The Admissions Committee will identify any 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 mistaken, he or she may petition the Graduate Program Committee to review it (see Protocol3). 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 Protocol4). Up to two 4000-level courses that are used to satisfy deficiencies may also count towards the Ph.D. and may be used to satisfy Depth or Two Breadth requirements (see section 6.2.1 below).

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 <u>Information for International Students.</u>

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. Students must complete the 45 credit requirement by the **Spring semester of their 4**th **year**.

The Department's research and instruction are arranged within eight Major Disciplines:

- Atmospheric Science
- Biogeosciences
- Geochemistry
- Geology/paleontology
- Geophysics
- Modern & Future climate
- Oceanography
- Paleoclimate

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

6.2.1 Depth and Two Breadths

A student's **Depth Requirement** is fulfilled when 12 credits (at least 4 courses) are completed within a single Major Discipline.

A student's **Two Breadths Requirement** is fulfilled when 3 credits are completed in one of the disciplines outside of the students Major Discipline and another 3 credits are completed in a second discipline outside of the students Major Discipline.

Depth Requirement	Two Breadth Requirements	
	Breadth 1	Breadth 2
12 Credits (4 courses)	3 credits (1 course)	3 credits (1 course)
Taken in Major Discipline	In discipline outside major discipline	In discipline outside major discipline and 1st breadth discipline

Students will declare their Depth and Two Breadth Disciplines to the Department by Fall registration of their 2nd year (see <u>Protocol</u> 5). Any changes to them must be declared to the Department using the same <u>Protocol</u>.

The Certifying Examination (Orals) is normally taken when a student has fulfilled their Depth and Breadth Requirements and a total of 30 credits (typically 8-10 courses) of accepted graduate credits are completed.

Courses that are listed in the student's Depth discipline **cannot** be counted as Breadth courses. **All courses used to satisfy the Depth and Two Breadth Requirements must be taken for a letter grade**. Graduate level courses from other Columbia departments, and graduate level courses taken at other institutions for which Transfer Credit has been awarded, can count as Breadth or Depth courses upon recommendation of the Ph.D. Student's Advisory Committee (see Protocol 6b).

Students who enter with Advanced Standing have a reduced Depth Requirement of two courses.

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 given 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 <u>two-year planner</u> has also been developed by the DEES Curriculum Committee. For more information, check the <u>Columbia College Online Bulletin</u>.

Some important notes:

- All pre-Certifying Exam (Pre-Orals) students must register for EESC G6001 Earth Science Colloquium each semester, which confers one point per semester for required attendance at LDEO's Friday Colloquium. Post-Certifying Exam students do not receive credit for this course.
- Students who are not taking any other courses in a given semester should register for EESC G9001 Research in Earth and Environmental Sciences. The credits conferred by G9001 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 G6003 Masters Research in the semester their Masters Meeting is scheduled (typically the spring semester of their second year). The 4 credits awarded for G6003 upon successfully completing the Master's Meeting 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 MPhil 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 <u>Protocol 9</u>.

Only 4000-level courses and above will count towards the 45-point requirement

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 6a.

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 Depth or Two Breadth requirements.

6.2.4 Taking courses at other institutions

Nine universities in the New York City area (Columbia University, 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 <u>Inter-University Doctoral Consortium Registration Form</u> and completing <u>Columbia's online IUDC</u> 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 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.

6.4 Advanced Standing for a Master's Degree

DEES presumes that students entering with a Master's Degree in a relevant field will be able to accelerate completion of the Ph.D. degree, since they will already have completed a Master's-level research project and some graduate-level courses elsewhere. Therefore, there will be a shorter timeline to completion for students entering with a Master's degree than for those who enter without one. Students are able to request Advanced Standing if they enter the program with a Master's Degree (see Protocol 10). Advanced Standing is only conferred 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).

The award of Advanced Standing confers two (2) Residence Units, exempts a Ph.D. Student from the Masters Meeting requirement, makes him or her ineligible for a Columbia M.A. degree and advances all deadlines by two semesters. Application for only one Residence Unit is not permitted by DEES.

Note that Advanced Standing pertains to Columbia's recognition of an external Master's degree, and not to its recognition of individual graduate courses that the Ph.D. Student may have taken at another institution (see Transfer Credit, below), either as an undergraduate or as a graduate student in a Master's program.

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 (<u>Protocol 10</u>). 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).

Transfer Credit, which confers *credits*, pertains to a specific set of graduate courses and is different than Advanced Standing for a Master's degree awarded by another institution, which confers *Residence Units*. However, a Ph.D. Student who requests both Advanced Standing and Transfer Credit applies for both concurrently.

6.6 Requirement to Maintain Good Standing

Ph.D. Students must maintain "good standing" in DEES, which includes maintaining continuous registration (except if a leave of absence is granted); maintaining a B+ minimum average in coursework; abiding by University rules concerning ethical conduct and proceeding forward with research in a manner deemed acceptable by the student's Advisory Committee.

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

6.7 Teaching Assistantship (TA) Requirements

The Teaching Assistant (TA) opportunity provides valuable 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.

Students will be assigned to be a TA for several departmental courses as they move through the program. All Ph.D. Students are required to earn a total of 4.0 TA points. The final number of TA points awarded for a course will be dependent on the hours of work required per week (1 point is ~10 hours per week). By DEES policy, no student is permitted to TA in his/her first semester, and DEES makes every effort not to assign TA duties in their second semester. However, if a student and advisor agree to a TA assignment in the second semester, it will be considered.

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.

For more information on the TA 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

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

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

A Ph.D. Student who enters without a Master's Degree (or who does not receive Advanced Standing for their degree) is awarded the M.A. degree when they have successfully completed the Masters Meeting. The Master's Meeting serves to evaluate the student's academic and research performance/potential. The meeting also serves to give the Ph.D. Student experience in oral presentation prior to the Certifying 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 Master's Meeting
- 20 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 11)

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 (MPhil) is conferred upon a student who has fulfilled all PhD requirements expect the dissertation.

To maintain satisfactory academic progress, all work for the MPhil 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 Certifying Examination
- Students must complete the Dissertation Proposal and submit the Report of the Dissertation Proposal to the GSAS office (Protocol 18)
- The Department must submit an <u>application for the M.Phil</u> to the GSAS on behalf of the student (Protocol 19)

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

7.3 The Ph.D

The degree of Doctor of Philosophy (PhD) 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
- Students must have completed their TA requirement
- The written dissertation must be approved by the candidate's Advisory Committee and an <u>application for the Dissertation Defense</u> must be sent by the Department Office to the GSAS (Protocol 22)
- 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 prepare and deposit the dissertation in accordance with the regulations of the Graduate School of Arts and Sciences

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

8. Examinations and Assessments

8.1 The Masters Meeting

A student typically has his or her Master's Meeting towards the end of their 4th semester (second year). The Masters Meeting requires a written submission of a research proposal, a paper discussing the results of a research project, and successful oral presentations of both to the student's Advisory Committee.

8.1.1 Research Paper

The purpose of the research paper is to demonstrate the Ph.D. Student's ability to perform scientific research. The underlying research project should have proceeded to the stage where at least some conclusions can be drawn.

To be acceptable, the research paper must meet these minimum standards: It must have at least: 1) a title, 2) an abstract, 3) an introduction that identifies the central problem under consideration and states research objectives, 4) a body that describes the research that has been performed to date; 5) a conclusion that discusses research results to date; and 6) bibliographic references. Figures, if any, may be preliminary but must be accompanied by explanatory captions. Its length is limited to no more than 10 pages of text (typed, double-spaced, or ≤3000 words) excluding figures, figure captions and bibliography. Overall, the research paper should demonstrate that the Ph.D. Student had undertaken considerable thought in defining a clear and realistic research project.

The Ph.D. Student may submit a published paper or submitted manuscript as his or her research paper, provided 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 minimum standards enumerated above.

8.1.2 Research Proposal

The purpose of the research proposal is to demonstrate the Ph.D. Student's ability to recognize and formulate relevant and tractable research projects. The proposal need not be related to the Ph.D. Student's current research and can be on any subject chosen by the student, irrespective of the availability of the funds or facilities needed to pursue it. If related to the PhD. Student's current research, it may not be a trivial extension of it. The underlying idea must be the Ph.D. Student's own, but he or she is encouraged to draw upon material discussed in committee meetings, seminars, workshops, etc.; he or she is welcome to discuss the idea with his or her committee. To be acceptable, the proposal must meet these minimum standards: It must have at least: 1) a title, 2) an abstract, 3) an introduction that identifies the central problem under consideration and states research objectives, 4) a body that describes proposed research (e.g. the hypothesis that is being tested, the design of the experiment, etc.); 5) a conclusion that discusses the potential impact of hypothetical results; and 6) bibliographic references. Figures, if any, may be preliminary but must be accompanied by explanatory captions. Its length is limited to no more than 4 pages of text (typed, double-spaced, or ≤1200 words) excluding figures, figure captions and bibliography.

<u>Deadline:</u> The research paper and proposal must be submitted to the Department Office **no later than February 15**th **of the Student's 2**nd **year** (the semester the Masters Meeting is scheduled for). While Ph.D. Students are encouraged to include updated material in their oral presentation during the Master's Meeting, the paper and proposal turned in on the 15th are the ones that are distributed to the committee. No others should be submitted.

8.1.3 Oral Presentations

The oral presentations of both the research project and the proposal given by the student should each be 15-minutes in length and should be structured similarly to those given at Geological Society of America or American Geophysical Union conferences.

8.1.4 Structure of the Masters Meeting

The duration of the Masters Meeting is 2 hours, and is formatted as follows:

- The first 75 minutes are devoted to the student's research project:
 - The student will begin with a 15-minute uninterrupted oral presentation of their research project
 - Following the oral presentation, there will be 60 minutes of discussion and questions (The Advisory Committee members should save questions until the talk is completed for more detailed discussion).
- The Chair will announce a 5-minute break
- The last 45 minutes of the Masters Meeting are focused on the proposal:
 - The student prepares a 15-minute presentation of the proposal, which may be interrupted for questions by the Advisory Committee members.

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

8.1.5 Scoring

At the end of the Masters Meeting the student is asked to leave the room while the Advisory Committee conducts a written confidential assessment of the Ph.D. Student's performance, based on a scale from 1 (low) - 5 (high). In the event that an Advisory Committee member is unwilling to give a numerical score, then "strong performance", "marginal performance", and "poor performance" will be tallied as 3.6, 3.25 and 2.9, respectively. Assessments are then averaged, with three possible outcomes:

Score	Category	Action Taken
>3.5	I – Straight Pass	Grant/Continue: Grant M.A. and allow student to continue
		on toward Ph.D
3.0 – 3.5	II – Conditional Pass, requiring discussion followed by an additional ballot to determine whether:	a. Grant/Continue: Grant M.A. upon completion of specific conditions in a specific timeframe and allow student to continue on toward Ph.D.;
		b. Grant/Terminate: Grant M.A. upon completion of specific conditions no later than the end of the current semester but not allow student to continue on toward Ph.D.; or
		c. Not-Grant/Terminate: Not Grant M.A. and not allow student to continue on toward Ph.D
< 3.0	III – Fail	Not-Grant/Terminate: Not grant M.A. and not allow student to continue on toward Ph.D

Once the vote is tallied, a discussion is required among the Advisory Committee members (still in closed session) to determine if any additional conditions (e.g., course work, modifications to research paper, etc.) must be satisfied by the student in order to receive the M.A. degree award, regardless of the average score. Such conditions must be approved by two-thirds of the Advisory Committee. Once the Advisory Committee determines the outcome of the Masters Meeting, the Ph.D. Student is called back into the room, informed of the Committee's decision, and provided a verbal summary of his or her performance.

If the vote is for Category I or IIa, the Advisory Committee also determines when the Ph.D. Student will sit for his/her Certifying Exam (but no later than the deadline). They also decide if the research topic presented at the Master's Meeting qualifies to become the paper presented at the Certifying Exam, or whether a different topic must be pursued. The Committee must also give verbal feedback to the Ph.D. Student on the student's research and performance, and they must give advice on how the Ph.D. Student might best prepare for his or her Certifying Exam.

<u>Deadline:</u> Within one week following the Masters Meeting, the Advisor is responsible for putting in writing the Advisory Committee's verbal comments to the student on his or her research and (when applicable) suggestions on how he or she should best prepare for the Certifying Exam (see Protocol 13).

The Ph.D. Student who receives a Category I is recommended to receive his or her M.A. degree at the end of the current semester. The Ph.D. Student who receives a Category IIa is recommended to receive his or her M.A. degree only upon completion of the required conditions in the specified timeframe. If the conditions are not satisfied within the timeframe, the Ph.D. Student is not in good standing and will not be allowed to sit for his or her Certifying Exam and may be terminated upon recommendation of the Advisory Committee and approval of the Graduate Program Committee.

A vote in either Category Ilb, Ilc, or III is a statement indicating the Advisory Committee's lack of confidence in the Ph.D. Student's ability to do Ph.D.-level research. If the vote is for Category Ilb, the student is judged deserving of an M.A. degree, but may receive it only after completing the specified conditions by the end of the current semester. At that time, if the conditions have not been satisfied, the student will not have satisfied the conditions for receiving the degree and will be terminated without receiving the M.A. degree.

If the vote is for Category IIc or III, the student does not receive the M.A. degree. He or she may leave immediately, but must leave by the end of the current term.

Categories I, IIa and IIb confer four credits for the course EESC G6003 Masters Research. These credits count toward the 20-credit minimum necessary for the M.A. degree, and toward the 45-point minimum necessary for the Ph.D.

8.1.6 Ad Hoc Policy on Appealing Results

A student is unable to appeal the results of his or her Masters Meeting. The Advisory Committee has the sole responsibility to assess the student's performance in the Masters Meeting. 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.

In extraordinary circumstance, the Department Chair has the authority to 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 Certifying Exam

Also commonly referred to as "Orals", "Qualifying Exam", or "General Exam", students typically take the Certifying Exam during their 6th semester (Spring of their 3rd year). Before the Certifying Exam, a student's Advisory Committee will complete the Apprenticeship Certification, informing the DEES Department Office that the committee believes the student is sufficiently prepared for the Certifying Exam.

8.2.1 The Certifying Examination Requirements

- The exam must be taken by the end of the student's third academic year of study
- 30 credits are required to be completed before the certifying exam
 - Students must have completed their Depth and Two Breadth requirements
- All entrance deficiencies must be removed
- The Apprenticeship Certification must be sent to the DEES Department Office
- The Research Paper must be sent to the DEES Department Office by February 15th

8.2.2 The Apprenticeship Certification

No later than the first week in February of the student's 3rd year, before a student takes the Certifying Exam, a Ph.D. Student's Advisory Committee must review their plans for or progress on the required research paper, coursework and any other relevant information, and certify that the student is sufficiently prepared to have a reasonable prospect of passing the Certifying Exam. This is called the Apprenticeship Certification (see Protocol 14).

8.2.3 The Research Paper

In preparation for the Certifying Exam, the Ph.D. Student must prepare a research paper that describes original research conducted by the student. The research paper must be submitted to the Department Office *no later than February 15th, during the Spring semester of the student's 3rd year* (the semester for which the Certifying Exam is scheduled). Ph.D. Students are encouraged to include updated material at the oral presentation during the exam, but the paper turned in on the 15th is the one distributed to the committee. No other versions should be submitted.

The purpose of the research paper is to demonstrate the Ph.D. Student's ability to perform scientific research. The underlying research project should have proceeded to the stage where significant conclusions can be drawn. To be acceptable, the research paper must meet these minimum standards: It must have at least: 1) a title, 2) an abstract, 3) an introduction that identifies the central problem under consideration and states research objectives, 4) a body that describes the research that has been performed to date; 5) a conclusion that discusses research results to date; and 6) bibliographic references. Figures, if any, may be preliminary but must be accompanied by explanatory captions. Its length is limited to no more than 15 pages of text (typed, double-spaced, or ≤4500 words), excluding figures, figure captions and bibliography.

The Ph.D. Student may submit a published paper or submitted manuscript as his or her research paper, provided 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 minimum standards enumerated above.

8.2.4 The Certifying Exam Committee

Each student is assigned an Examining Committee for their Certifying Exam. This committee evaluates the student's ability to perform Ph.D.-level research and demonstrate commensurate academic knowledge of his/her specialties. The Examining Committee consists of the three Advisory Committee members and two additional members, chosen by the Examinations Subcommittee of the GPC. In selecting the additional members, the subcommittee is guided by the Ph.D. Student's Depth & Breadth coursework and takes into consideration (but is not obligated to use) up to four nominations made by the Ph.D. Student (<u>Protocol 15</u>). 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 visiting from other institutions are not.

Committee Member Roles

The DEES Examinations Committee designates a chairperson from among the two additional members and designates which examiner is to test each of the four disciplinary areas (the Depth discipline, two breadth disciplines and General Earth Science), according to the following rules:

- An individual examiner tests a maximum of one discipline.
- Depth is tested by the Advisor, unless the Advisor agrees otherwise.
- General Earth Science is tested by the chairperson, or with the chairperson's concurrence, by the other additional member (but not by a member of the Advisory Committee).
- Each breadth discipline is tested by whoever is designated by the DEES Examinations Subcommittee.
- The fifth member is not assigned a discipline of his or her own, but may ask questions on any of the other four disciplines.
- Once the Examining Committee has been selected, the DEES office schedules the exam.

8.2.5 Timeline

The Ph.D. Student is informed of the exam date and the make-up of his or her Examining Committee approximately *four weeks in advance*, in order to allow adequate time for study and practice. He or she is free to introduce him or herself to unfamiliar members and to ask the advice of any member on material he or she should study. However, Examining Committee members are not required to offer any advice; the Ph.D. Student is expected to respect the decision of any committee member who declines to offer it.

If, on the day of the exam, the Ph.D. Student believes himself or herself to be in an impaired physical or mental state likely to affect performance, he or she should bring it to the attention of the Chair of the Examining Committee prior to the start of the exam. The Chair should postpone the exam when circumstances warrant.

8.2.6 Structure of the Certifying Exam

At the start of the exam, the Examining Committee chairperson is responsible for: introducing the student and the student's background (Depth and Two Breadth Disciplines and previous graduate work, if any) to the Examining Committee; and reiterating the exam rules. The student's Advisor is responsible for summarizing the student's coursework, previous graduate work, if any, and should inform the Committee of any information relevant to the preparation of the student for the exam.

The duration of the exam is approximately 2 hours, grouped as six 20-minute periods. It is formatted as follows:

- The first 20-minute period focuses on the student's research project and begins with an oral presentation by the student on his/her research paper.
 - The student will give a 15-minute uninterrupted oral presentation (similar to those given at Geological Society of America or American Geophysical Union conferences). The Examining Committee members should save questions until the talk is completed for more detailed discussion.
 - o The next 5 minutes are devoted to questions directly related to the oral presentation by members of the exam.
- The Chair shall announce a five-minute break so that all parties can relax, visit the bathroom, etc.
- The next 20-minute period is devoted to questions related to the student's Depth discipline and is led by the examiner designated for that subject.
- The next two 20-minute periods are devoted to the student's two Breadth disciplines. Each respective period is led by the examiner designated for that discipline. The Chair shall recess the exam for a five-minute break between these two periods.
- The next 20-minute period is devoted to general Earth science and is led by the examiner designated for that subject. That examiner's specific responsibility is to cover many areas to evaluate whether the student has sufficient breadth of knowledge in general earth sciences (including atmospheric science, oceanography and solid earth science).
- The final 20-minute period is devoted to "open" questioning. During this period, the examiner who did not lead his or her own questioning period during the exam is given the priority opportunity to ask questions on any of the other four disciplines. Any examiner may also ask follow-up questions that arose during the course of the exam.

8.2.7 Scoring

At the end of the examination, the student leaves the room, and the Examining Committee members conduct a confidential written ballot consisting of two grades. Grades are based on a scale from 1 (low) to 5 (high). One grade represents the examiner's impression of the student's overall performance (i.e., how the student answered all of the questions in general); the second grade represents the examiner's impression as to how well the student answered that examiner's own specific questions. (In the event that an examiner is unwilling to give a numerical grade, then "pass," "marginal performance," and "fail" will be tallied as 3.6, 3.25, and 2.9, respectively.) The ten grades will then be averaged, the final grade indicating one of five possible outcomes:

Score	Category	Action Taken
Greater than 3.5	I – Straight Pass	M.Phil. recommended upon completion of Dissertation Proposal; proceed to Ph.D.
3.0 – 3.5	II – Conditional Pass/Fail, requiring a discussion followed by an additional ballot to determine whether:	a. Conditional Pass, passed the Certifying Examination in Earth & Environmental Sciences, and upon completion of thesis proposal, is recommended for the degree of Master of Philosophy. However, the student must complete the following before proceeding to the Ph.D

		b. Conditional Pass, passed the Certifying Examination in Earth & Environmental Sciences and is recommended for the degree of Master of Philosophy. However, he/she did not meet the standard set by the Department for Ph.D. candidacy, and his/her candidacy for the Ph.D. degree is terminated. c. Conditional Fail, failed the Certifying Examination in Earth & Environmental Sciences, but the undersigned recommend that re-examination of the candidate be permitted one semester hence.
Less than 3.0	III - Fail	M.Phil and Ph.D. candidacy terminated.

Once the vote is tallied and regardless of the average score, a discussion is required among the exam committee members (still in closed session) to determine if any additional conditions (e.g., course work, modifications to research paper, etc.) must be satisfied by the student to receive the M.Phil. degree. Such conditions must be approved by four-fifths of the exam committee.

Once the exam committee determines the outcome of the Certifying Exam, the student is called back into the room, informed of the Committee's decision and provided a reasonable verbal summary of his or her performance.

A Straight Pass (I) implies the student passed the Certifying Examination and is recommended for the degree of Master of Philosophy upon completion of thesis proposal

If the vote is for Conditional Pass (IIa), the student is given a time frame in which to satisfy any conditions required to raise the conditional pass (IIa) to a straight pass (I). If the conditions are not satisfied within the allotted time frame, the student will no longer be in good standing and may be terminated upon recommendation of the Advisory Committee and approval of the Graduate Program Committee.

A Conditional Terminal Pass (IIb) is a statement indicating that the student was judged deserving of an M.Phil. degree, but did not meet the standard set by the Department for Ph.D. candidacy, and his/her candidacy for the Ph.D. degree is terminated. The student may receive the M.Phil. degree only after the orals project has been revised/improved and judged to be satisfactory by the exam committee (or a subset of the committee so designated by the full committee), and any other explicit conditions satisfied. If the explicit conditions have not been satisfied by the deadline set by the committee (usually the end of the current semester), the student will be terminated

without receiving the M.Phil. degree. If the project revisions are satisfactory and the other conditions are satisfied, the M. Phil degree will be awarded.

A Conditional Fail (IIc) implies that the student failed the Certifying Examination, but the committee recommends that re-examination of the candidate be permitted the following semester.

A Fail (III) is a statement indicating the exam committee's lack of confidence in the student's ability to do Ph.D. -level research. Category III implies the student may leave immediately, but must leave by the end of the current term, without receiving the M.Phil. degree.

8.2.8 Ad Hoc Policy on Appealing Results

A student has no right to appeal the results of his or her Certifying Exam. The Examining Committee has the sole responsibility to determine whether the student has passed or failed the Ph.D. Certifying 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.

In extraordinary circumstance, the Department Chair has the authority to 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.

8.3 The Dissertation

The PhD 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.

8.3.1 The Dissertation Proposal

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. **Students must complete the Dissertation Proposal in the fall semester of their 4**th **year** (the semester after completing the Certifying Exam).

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 9).

This Fall deadline ensures that all students are given enough time to successfully propose their dissertation within the GSAS deadline. Failure to meet the GSAS <u>deadline</u> will result in a student losing good academic standing, being placed on probation, and not having their stipend disbursed for the ensuing fall semester.

The Dissertation Proposal is a public oral presentation, lasting 45-60 minutes, given by the student to the Advisory Committee members and invited guests. 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.

Immediately after the presentation, the student and his or her Advisory Committee must conduct a private conversation in which the Committee responds, advice is given, the student's path forward is communicated, and the Committee signs off on the plan.

Dissertation proposals are not graded. The Advisory Committee certifies the Dissertation Proposal's acceptability on the Report of the Dissertation Proposal Committee form provided at the time of the presentation (<u>Protocol 18</u>). The Advisory Committee must sign the form certifying that they approve the proposal 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 17).

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. At this time, if all other requirements have been met, the Department office will submit the Application for MPhil degree on behalf of the student to the GSAS.

Each spring all post-MPhil students, students in their eighth semester who are required to complete the MPhil by the end of the semester, and their primary advisers are required to submit an annual Report on Progress in Candidacy to GSAS (Protocol 16). This is done on SSOL.

8.3.2 The Annual Dissertation Topic List

The Department maintains and widely distributes a list of the Dissertation Topics of all of its Ph.D. Students, to facilitate members of the university community becoming aware of their research. At the beginning of the fall semester, every student in the Department who has successfully completed the Certifying Exam is required to submit a tentative title for his/her dissertation, including a few descriptive sentences on the scientific objectives of the study (Protocol 20). As long as the student remains a candidate for the Ph.D. degree, he/she will be expected to submit these entries annually until the Dissertation is distributed.

Because a dissertation will normally touch upon several fields of specialization, it is in the best interest of the student that all members of the DEES faculty be apprised in advance of its probable content. Advice and criticism accepted in early stages of dissertation research permit field and laboratory investigations to be adjusted to the most effective lines. Inadequacies brought to light in early stages can be dealt with, thus minimizing serious objections when the dissertation comes before the Departmental readers.

It is expected that the scientific objective of the Ph.D. dissertation may change as field and laboratory work progresses. The descriptive sentences, therefore, should state the aims and achievements of the research as of the date of its submission.

8.3.3 The Dissertation Defense

In preparation for the Dissertation Defense, the PhD Student must alert the Department Office that he or she is ready to submit a draft of the dissertation to the main adviser for possible approval to defend (Protocol 21). 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. Once the adviser approves the

dissertation draft, 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 <u>GSAS Student Guide</u>. International students with questions about their registration and remaining in visa compliance should contact the <u>International Students and Scholars Office</u> (ISSO).

Once the Department Office has received notice that the student has distributed, the Department Office will send the <u>Application for the Dissertation Defense</u> to the GSAS (<u>Protocol 22</u>). This *must* be done *at least* 2 weeks before the Dissertation Defense date.

8.3.3.1 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 which (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.

8.3.3.2 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" defenses 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 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 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.

8.3.4 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.

8.3.5 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. The Defense Committee, however, reserves the right to review those revisions.

8.3.6 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

ivillestones		
YEAR ONE		
Student's Advisor selects two additional advisory committee members for the s	tudent's 1st	
year Advisory Committee		
Fall Term		
Students have Advisory Committee Meeting		
Students register for courses with the approval of the Registration Professor (DGS)		
Students identified as needing language courses fulfill this requirement		
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 declare Depth and Two Breadth Disciplines by registration deadline	Protocol 5	
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 11	
Spring Term		
Students have Advisory Committee meeting		
Students register for courses with the approval of the Registration Professor (DGS)		
Master's Paper and Outline and Proposal is submitted to the Department Office no later than February 15th		
Master's Meeting		
Advisor submits Summary of Master's Meeting to Department Office	Protocol 13	
After requirements laid out in Masters Meeting have been met, Advisor submits Certification that Master's Requirements have been Satisfied to		
Department Office	Protocol 12	
Students complete 20 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)	
Students must remove Entrance Deficiencies prior to taking the Certifying Exam	Protocol 4
Students complete 30 of the 45 required course credits before taking the Certifying Exam	
Spring Term	
Students have Advisory Committee meeting	
Students register for courses with the approval of the Registration Professor (DGS)	
Advisor must submit the Apprenticeship Certification to the Department Office by the 1 st week in February	Protocol 14
Students must submit their Research Paper for Certifying Exam to the Department office by February 15th	
If the student wishes to nominate a Certifying Exam committee member, the student must submit the Nomination form to the Examinations Subcommittee Chair no later than 6 weeks prior to the exam	Protocol 15
Students take Certifying Exam	
YEAR FOUR	
Fall Term	
Students have an Advisory Committee meeting	
Students submit annual dissertation topic at the time of registration (all post-	
certifying exam students)	Protocol 20
Dissertation Proposal, must be completed by end of Fall term	
The Advisor submits confirmation of the completion of the Dissertation	
Proposal to the Department Office	Protocol 17
The Department Office submits the Report of the Dissertation Proposal to the GSAS	Protocol 18
Spring Term	
Students have Advisory Committee meeting	
Students and Advisor required to submit Report on Progress in Candidacy on SSOL	Protocol 16
Students complete 45 credits of coursework	
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 19
Award of M.Phil, must be awarded by May of 4 th year to remain in "good standing"	
YEAR FIVE	
Fall Term	
Students have Advisory Committee meeting	
Students register to maintain Resident Status	

Students submit Annual Dissertation Topic to Department Office at	
registration	Protocol 20
Spring Term	
Students have Advisory Committee meeting	
Students register to maintain Resident Status	
Students and Advisor required to submit Report on Progress in Candidacy on	
SSOL	Protocol 16
Students submit a Notice of Approaching Dissertation Defense to Department	
Office	Protocol 21
Students Distribute their Dissertation to the final committee members (this	
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 3 weeks before the scheduled	
Dissertation Defense Date	Protocol 22
Students Defend their Dissertation	
TA requirement must be complete	
Students Deposit their Dissertation once all revisions have been made	
Students are awarded the Ph.D.	

^{*} For students entering with Advanced Standing, all milestones will occur 1 year earlier. See Department Office for detailed breakdown of Milestones for Students with Advanced Standing

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. 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 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-PI), in charge of overseeing its successful completion. A PhD 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. The University will provide the funds necessary to bring a lesser fellowship up to the amount of current University fellowships, and 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, 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 typically 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 <u>GSAS Student Guide</u>. GSAS External Fellowship Policy information can be found <a href="https://example.com/here/beats/base

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 PhD Student Research Allowance Policy and Procedures can be found <u>here</u>.

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 <u>University Apartment Housing (UAH)</u>, 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 <u>GSAS website</u>. Note: Eligibility for University housing may also change after five years. More information on eligibility can be found <u>here</u>, 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 <u>here</u>, 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 reflect a presumption that our graduate students are able to manage their time, research, and progress towards the PhD 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 Coordinator 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 PhD 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

<u>The Ombuds Office</u> 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 TA's, 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 tell of your experience in the program. The purpose of the interview is to collect information about the performance of aspects of the PhD program from the perspective of graduating students, and to use the information to identify those elements of the PhD 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 to conduct an <u>exit interview</u>.

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 Coordinator 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 <u>alumni association</u>, which fosters communications and interactions among its members.

14. Protocols

*Note that Protocol numbers have been updated from the 2017 Student Guide.

Protocol 1: Request to Change Advisor

Initiator: The Ph.D. Student

Preparation:

- 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 Coordinator 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 Coordinator

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 Coordinator, 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 Coordinator

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 Coordinator 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 Coordinator 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 Coordinator

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 Coordinator

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: Declaration of (or Change of) Depth and Two Breadth Disciplines

Initiator: The Ph.D. Student

Preparation:

- 1. You must have identified your proposed Depth and Breadth Disciplines. Be sure that they are on the list included in this Guide. Make sure that your plan for coursework covers them.
- 2. When changing your Depth discipline, you must check with your Advisor that he or she feels able to advise a student in that area.
- 3. You must have discussed the proposed change with your Advisory Committee and they must have approved it.

Email Template:

To: Graduate Program Coordinator

Fr: Ph.D. Student

Cc: Members of Advisory Committee, including Advisor

Subject: Declaration of (or Change of) Depth and Breadth Disciplines

Content of memo:

- 1. List your current Depth and Breadth Disciplines.
- 2. Identify the proposed change, and list your Depth and Breadth Disciplines after the change.
- 3. Discuss why you think the change is appropriate.
- 4. Provide an up-to-date list of the courses you are using, or plan to use, to satisfy you Depth and Breadth requirements. Include the course name and number, number of credits, and whether or not you've yet taken the course.
- 5. Provide a statement that you have discussed the changes with your Advisor and Advisory Committee, and that they approve.

Review Process:

Approval is automatic as long as the request conforms to the rules.

The Graduate Program Coordinator verifies that the listed courses will satisfy the Depth and Breadth requirements. The Graduate Program Coordinator then notifies the Ph.D. student that the Depth and Breadth Disciplines have been approved, cc'ing all the members on the original cc list.

Protocol 6a: 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 Coordinator

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 6b: Request to Substitute a non-DEES graduate level course for a Depth or Breadth Requirement.

Initiator: The Ph.D. Student

Preparation:

- 4. If the course is already listed in the DEES Course Listing by Major Discipline Table, the course has been pre-approved and no action is necessary.
- 5. You must have identified the course and noted its number, full name and instructor.
- 6. You must have discussed the proposed substitution with your Advisory Committee and they must have approved it.
- 7. For courses taught by other Columbia departments, you need not yet have taken the course. However, if the course is from another institution, you must verify that you have already received Transfer Credit for it.
- 8. Students with Advanced Standing have reduced Depth and Breadth requirements and may not substitute Transfer Credit for Depth or Breadth requirements.

Email Template:

To: To: Graduate Program Coordinator

Fr: Ph.D. Student

Cc: Members of Advisory Committee, including Advisor

Subject: Request to Substitute a Course for Depth or Breadth Requirement

Content of memo:

- Identify each course that you would like to substitute and note the institution and department in which it was offered, its number, full name and instructor, and the Depth or Breadth discipline it is to be counted against. For a course taken at another institution, indicate when Transfer Credit was awarded.
- 4. Provide an up-to-date list of the courses you are using, or plan to use, to satisfy your Depth and Breadth requirements. It should include the course being substituted.
- 5. 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 7: 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 Coordinator

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-quide/policy-handbook/grading-system

Protocol 8: 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 Coordinator to your situation.
- 2. You should consider discussing your situation with the DAAF, Graduate Program Coordinator, Advisory Committee and/or the DEES Chair before formally requesting a Leave of Absence.

Email Template:

To: Graduate Program Coordinator

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 Coordinator refers the matter to the Department Chair for action.

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

Notifying GSAS:

Students must also notify GSAS by submitting the $\underline{\text{Leave of Absence Form}}$ to $\underline{\text{gsasstudentaffairs@columbia.edu}}$

Protocol 9: 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 Coordinator

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 Master's Meeting, the Certifying 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 Coordinator and all the individuals on the original cc list

Protocol 10: Request for Transfer Credit and Advanced Standing

Initiator: The Ph.D. Student

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

Preparation:

1. You should decide whether in addition to requesting Transfer Credit, you are also requesting Advanced Standing for an external Master's Degree.

For Transfer Credit:

- 2. 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.
- 3. You must check that the total number of credits you are requesting does not exceed 15.
- 4. 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.
- 5. 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.

For Advanced Standing:

- 6. You need to show that your Master's Degree is relevant to your program at Columbia and that the work you did to obtain it is comparable to what you would have done to obtain a Master's Degree from Columbia and deserves the award of two (2) Residence Units. The Master's Degree should include a Research Paper or Thesis. The Master's Degree should include 2 semesters of graduate-level work.
- 7. An application for Advance Standing is most credible when the courses you took in your Master's program closely overlap those you otherwise would have taken as part of your program at Columbia.

Email Template:

To: Director of Graduate Studies (Chair of the Graduate Program Committee)

Fr: Ph.D. Student

Cc: Graduate Program Coordinator

Members of Advisory Committee, including Advisor

Subject: Request for Transfer Credit and Advanced Standing

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.

For Advanced Standing

- 5. Documentation of two semesters of graduate-level courses (see Transfer Credit (1))
- 6. Identify the department, institution and date of your Master's degree.
- 7. Argue that the work you did to obtain it is comparable to what you would have done to obtain a Master's Degree from Columbia and deserves the award of two (2) Residence Units (requests for only one RU are not allowed).

Attachment(s) to memo:

- A copy of the GSAS Advanced Standing and Transfer Credit form, at: http://gsas-2l12p-01.gsas.columbia.edu/sites/default/files/GSAS-advancedstanding.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.

For Advanced Standing:

- 5. A copy of the Master's Thesis or Research Paper.
- 6. Excerpts from your institution's literature that might help establish that the Master's Degree that you received there is comparable to Columbia's.

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).

For Advanced Standing: The Graduate Program Committee must verify that the Master's Degree is in a subject relevant to the Ph.D. Student's program and that it is comparable to a Columbia Master's Degree and deserves the award of two (2) Residence Units.

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 Coordinator then notifies the Ph.D. Student of GSAS's decision, cc'ing all the individuals on the original cc list.

Protocol 11: 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 2^{nd} 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 12: 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 Coordinator

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 13: Summary of Masters Meeting

Initiator: The Advisor

Preparation:

1. The Advisor must review the summary with the Advisory Committee before forwarding it to the department.

Email Template:

To: Graduate Program Coordinator

Fr: Advisor

Cc: Ph.D. Student

Other members of Advisory Committee

Subject: Certification that Masters Requirements have been Satisfied

Content of memo

- 1. Opening paragraph that summarize the Ph.D. Students performance at the Master's Meeting and which contain congratulatory remarks when appropriate.
- 2. Statement that the Advisor is acting on behalf of the Advisory Committee in providing the following information.
- 3. List of requirements (if any) imposed at the Masters Meeting, or the statement that no requirements were imposed.
- 4. Comments concerning the Ph.D. Student's research project.
- 5. (When applicable) Whether the Certifying Exam is recommended for the fifth or sixth semester and suggestions of how the Ph.D. Student should best prepare for it.

Attachment(s) to memo: (none)

Review Process:

(none)

Note: Once the Graduate Program Coordinator receives notice that the student has satisfied requirements for the Masters, certification will be confirmed with the Registrar and GSAS.

Protocol 14: Apprenticeship Certification

Initiator: The Advisor

Preparation:

1. The Advisory Committee must review the Ph.D. Student's research, coursework and any other relevant information, the Advisory Committee must certify that the student is sufficiently prepared to have a reasonable prospect of passing the Certifying Exam.

Email Template:

To: Graduate Program Coordinator

Fr: Advisor

Cc: Ph.D. Student

Other members of Advisory Committee

Subject: Apprenticeship Certification

Content of memo:

- 1. Name of Ph.D. Student.
- 2. Statement that the Advisory Committee has reviewed the Ph.D. Student's research paper, coursework and other relevant information and is conferring the Apprenticeship Certification.

Attachment(s) to memo:

(none)

Review Process:

(none)

Protocol 15: Nomination of Certifying Exam Committee Members

Initiator: The Ph.D. Student

Preparation:

- 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 and its relevance to your Depth and Breadth subjects.
- 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 Coordinator

Members of Advisory Committee, including Advisor

Subject: Nomination of Certifying Exam Committee members

Content of memo:

- 1. Identify yourself and state your Depth and Breadth disciplines.
- 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 Depth and Breadth disciplines.

Review Process:

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

Protocol 16: Report on Progress in Candidacy

Initiator: The Ph.D Student and the Advisor

Timeline: Each spring all post-MPhil students, students in their eighth semester who are required to complete the MPhil by the end of the semester, and their primary advisers are required to submit an annual Report on Progress in Candidacy to GSAS. This is done on SSOL.

More information on the Report on Progress in Candidacy can be found in the <u>GSAS Student</u> Guide

Protocol 17: 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 Coordinator

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 18: 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/phd-forms/dissertation-proposal-committee-2017-18.pdf

Protocol 19: 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 20: Annual Dissertation Topic and Description

Initiator: The Ph.D. Student

Preparation:

1. The Ph.D. Student receives from the DEES Office an email containing a template for creation or revision to Post-Orals students and accompanying instructions.

Action:

The Ph.D. Student uses the template to create or revise to the Topic and Description and emails it back, per the instructions that accompanied the template.

Review Process

(none)

Protocol 21: 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 Coordinator

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 22: 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

Appendices

Appendix A - Guidelines for Advisory Committee Meetings

Checklist for initial First-Year Advisory Committee Meeting

- ✓ Discuss any Entrance Deficiencies noted. Review the student's transcript to determine if any courses were taken that might satisfy these deficiencies. What should the student plan to take to remove deficiencies?
- ✓ Discuss the student's course of study. Which courses do they have planned for the current semester? What courses do they plan to take over the next few years? Having the two-year course planner handy would be helpful during this discussion.
- ✓ Does the student have any questions regarding registration? Ensure the student has registered for Residence Status "RU" as well as EESC GR6001 Earth Science Colloquium (LDEO's Friday Colloquium). Stress the importance of attending.
- ✓ Will the student be seeking Transfer Credit for graduate courses taken at other institutions? Discuss the timeline and application process for transferring credits.
- ✓ Does the student anticipate seeking Advanced Standing for an external Master's Degree? If so, discuss the timeline and application process of doing so.
- ✓ Discuss what it means to declare Depth and Breadth disciplines and the process of doing so.
- ✓ Discuss the research project that the student is expected to perform during the course of the year. Provide advice on how he or she can get started (e.g., background reading). What is the timeline for the project? Discuss time management expectations.
- ✓ Inform the student of any affiliated institution personnel who will be important for the student to get to know (e.g., division administrators, secretaries, technicians, lab managers, etc.). Provide the student with a list of these individuals if necessary.
- ✓ Are there any affiliated institution requirements, such as lab-safety courses, that need to be completed?
- ✓ Prior to the meeting, review the student's source of funding. Discuss any special requirements of the funding with the student.
- ✓ Discuss future options of applying for external funding (e.g., NASA and NSF graduate fellowships).
- ✓ Discuss expected communication frequency between advisor and student. How frequently should the student expect to meet with the advisor? What will the best method of communication be between advisor and student?
- ✓ Discuss advisor availability with student.
- ✓ Discuss the role of the First-Year Advisory Committee.
- ✓ Are there any remaining issues the student is concerned or confused about?

Appendix B - Checklist for the Registration Professor

Checklist for the Registration Professor (typically the DGS):

- ✓ Has the Advisor signed off on courses?
- ✓ Has the Ph.D. Student met with his or her Advisory Committee during the previous semester?
- ✓ Is the Ph.D. Student maintaining at least a B+ average?
- ✓ Does the Ph.D. Student have a plan for removing any outstanding Entrance Deficiencies?
- ✓ Is the Ph.D. Student scheduled for a Master's Meeting this semester? If so, alert him or her to the deadline for submitting the research paper and proposal.
- ✓ Is the Ph.D. Student scheduled for a Certifying Exam this semester? If so, alert him or her to the deadline for submitting the research paper.
- ✓ Has the Ph.D. Student properly signed and dated all the appropriate forms?