# Letter to Research Mentors

(To be filled out by the student, signed and handed to their research mentor)
This form (and a lot more information about the seminar) is also on-line, see senior seminar website:
<http://cool.barnard.edu/envsci/>

**Student's name and contact info:**
 **First of all: Thank you so much for agreeing to mentor one of our students!**

The goal of the joint Columbia/Barnard Thesis Research Seminar is to provide a framework for the students to conduct guided, independent, in-depth research culminating in the senior thesis. We meet weekly to biweekly to review work in progress and share results through oral and written reports. All senior majors are required to write a senior thesis and participate in the Environmental Science Senior Research Seminar. The senior seminar can be taken in the fall/spring sequence of the senior year, or in the sequence spring (junior year)/fall (senior year). The goal of the first semester is to write a thesis proposal, that of the second to complete the thesis. We strongly encourage students to consider a summer internship between junior and senior semester.

You are the **research mentor** of your student. Each student has also a **seminar advisor** who helps your student with the process, in particular with scientific writing, but typically is not an expert in the field of the student's research. Your role as **research mentor** is to ensure that the scientific approach of the project is sound and that the student has the resources and support needed to conduct the work. While feedback on the writing is welcome - that will be the primary focus of the seminar advisor.

Division of responsibilities:



|  |  |
| --- | --- |
| **Seminar Advisor** | **Research Mentor (you)** |
| * Deadlines
* Writing/presentations
* Big picture content
* valuation/grading
 | * State-of-the-art of the field, incl. literature
* Methods/approach
* Analysis, including data/statistics
* Interpretation and conclusions
* Resources
 |

We want our students to be independent researchers in the senior seminar, and communications should go through the student. However, if you feel that a direct discussion between you (the mentor) and the seminar advisor is necessary, here is his/her contact information:

**Seminar advisor's name, email address and phone number:**

**Please send a quick email (today!)** to the seminar advisor of your student so that contact is established and to acknowledge that you received this letter.

**Here are a few additional tips that you might find useful:**

* Please give instructions in writing. This will make it much easier for the student and will save you a lot of time in the long run. If it is not possible to make up written instructions beforehand, ask the student to take notes during your discussion, and have him/her type up the instructions  and email them back to you.
* If the student will be working with hazardous materials, make sure that she/he is properly attired and instructed. If your department offers a lab safety course, please sign her/him up for it at the beginning of her/his time with you. Students must go through lab safety training.
* Please let the student know your contact information, email, phone, and discuss your availability during the semester. If you are planning to be away, please leave written instructions for the student. If there is someone else that the student can consult when you are away, please let him/her know.
* Make sure that the student understands the overall goal of her/his part of the research.
* Some students may be interested in working with you on a publication. Students are also encouraged to present their work at scientific meetings, some travel fund for students are available through the Earth Institute, for example.
* All students will be taking the senior seminar for 3 credits in each of two semesters. This translates into a time commitment of 1 day a week in both the fall and spring semester.
* The student will be writing a ~20 page proposal in their first semester in the first semester and a ~45 page paper in their second semester. The proposal is expected to contain the rationale for the project, background material, an analysis of data collected up to that point, and a statement of scientific problems that remain. The 2nd semester thesis is expected to be written like a standard scientific paper with the following sections: abstract, introduction, methods, research results, discussion of research results, conclusions, figures, figure captions, and references cited. We would like you to read these papers and comment on them, in particular the content. In the first semester, an outline of the thesis proposal will be due to you and their seminar advisor, a draft of the proposal will be due in the middle of the semester, and the final draft is due the end of the semester (See '[schedule](http://www.ldeo.columbia.edu/~martins/sen_sem/spring_schedule.html)' page on the above website for details).  They adhere to a similar schedule in their second semester. Your comments on each document should be sent to the student who will discuss them with her/his seminar advisor. At the end of the semester, you will also be consulted about a grade ([see 'expectations' page](http://cool.barnard.edu/envsci/?page_id=189)).
* Schedule of major milestones this semester:

|  |  |  |
| --- | --- | --- |
|  | **1st semester students** | **2nd semester students** |
| 10/2 | outline of thesis proposal | 1st draft of thesis |
| 10/23-11/6 | 10 min oral presentation | 10 min oral presentation |
| 10/30 | thesis proposal 1st draft  | 2nd draft of thesis |
| 11/13 | Peer review form | Peer review form, poster drafts, 30s slide |
| 12/4 |  | **poster presentation** |
| 12/8 | final thesis proposal | final thesis |
| ~12/17 | feedback from mentors required | feedback from mentors required |

## Student's Pledge

I accordance with the guidelines of the senior seminar I agree to:

* keep you updated on my progress on a biweekly basis,
* respond to email from you within a day or two,
* give you any material that I expect feedback on at least a week before I need your advice,
* send you a copy of any document due in class on the date of the deadline,
* send you both a digital and hard copy of all analyses.

**Student signature & date:**


##