

Dr. Grothe's Research Lab Expectations

Welcome to my lab! I study past climate change as a way to put present and future climate change into context with human-induced global warming. I use carbonate proxies, such as skeletons from corals and shells from oysters, to reconstruct past environmental conditions. By working in my lab, you will gain experience and confidence to perform scientific research. These skills will translate into marketable skills whether you are applying for graduate school or applying for a job in the Earth and Environmental Sciences. A research experience could very well mean the difference of *YOU* getting the job over someone else.

RESEARCH EXPECTATIONS

1. COMMUNICATION

- a. Communication is key. I expect that you will meet with me regularly, come to me when you get stuck, and be open about challenges in life or the lab that may set you back.

2. MEETINGS

- a. If you are a student in my lab, you must set a reoccurring weekly meeting with me for at least 30 minutes. During this time, we will discuss your progress over the last week and set goals for the next week.
- b. Depending on how many students I am working with, we may also have a weekly lab meeting as a way to stay on top of everything happening in the lab.

3. UNDERGRADUATE RESEARCH ASSISTANT

- a. I expect most students to either formally or informally began as an undergraduate research assistant. This would mean you would register for the URES credit and either work directly under me on one of my projects or work alongside a senior student helping and learning from them. This is a chance for you to become familiar with the lab, how research works, and decide if this is a good fit for you.

4. INDEPENDENT RESEARCH

- a. Independent research is reserved for juniors and seniors. Within the scope of my expertise, available samples, and realistic funding, you must propose to me an independent project. I don't expect you to do this completely alone – talk to me about ideas and then we will decide the direction of your project. This is an independent project, meaning that I expect you to own the research. Usually a project takes place over one to two years and includes background literature, field work, processing samples, and analyzing data for a final report.

5. DEPARTMENT HONORS

- a. This is an independent research experience for those with a GPA above xyz and the motivation to challenge themselves through a more formal rigorous process in order to graduate with Departmental Honors. The same expectations apply for an independent research project, except you will have a formal research proposal due beginning your Fall semester of senior year, proposal defense at end of Fall semester, formal thesis, and defense of your thesis at end of Spring semester, all of which must be approved by your committee.

6. TIME COMMITMENT

- a. The number of credit hours you register for will depend on the level you are at with your project. At the bare minimum, I expect that for every hour you register, you will be in the lab working that amount of time, preferably on a set schedule. Then for every hour you are registered, you should target at least three hours of additional time working on your project, either in or out of the lab. For example, if you register for independent research, you should register for either three or four credit hours. This would mean you need to schedule three or four hours to be actively working in the lab and then expect 9-12 hours of additional work on your project.

7. CONFERENCES

- a. For students working on an independent or honors research projects, you are expected to attend at least one scientific conference to present your work.

8. PUBLICATIONS

- a. Not all projects will directly result in a peer-reviewed publication, but the expectation is that your work will contribute to a paper at some point that either I or another student will write.