Tulane University

Department of Earth and Environmental Sciences

Ph.D. Qualifying Examination Preparation Points

In addition to preparing two scientific proposals for your qualifying examination, you will also be asked to answer questions orally in the closed-door portion of the examination. These questions, asked by your examining committee, will be aimed at testing your depth of knowledge in your proposed research field as well as your breadth of knowledge in the Earth and environmental sciences. In order to prepare for such questions, you should:

- Know the geology and geologic history of the field areas in which your proposed work will take place, and/or an area most analogous to your proposed experiment(s).
- Have a good understanding on the broad impacts that your study may have on other disciplines within the Earth and environmental sciences, especially those disciplines encompassed by your examining committee.
- Know basic concepts about Earth and environmental sciences, especially as they relate to your proposed work, including but not limited to:
    - Composition of Earth and how it is studied
    - Movements of Earth's crust
    - Major geochemical and biogeochemical cycles
    - Earth history and paleobiology
    - Tectonics, orogeny, erosion, and sedimentation
    - Ocean-atmosphere-climate feedbacks
    - Environmental science
- Be prepared to discuss any of the above topics in a logical and thought-oriented manner.
- Discuss with your Examining Committee what they will expect from you during this examination.

There are several ways to prepare for such an examination, and different students may find some better than others. Below are some recommendations:

- Review your course work for the first 4 semesters at Tulane as it pertains to your proposals and thesis work – there is almost always a connection.
- Read introductory texts such as those used for courses you may TA.
- Hold student-only practice oral examinations where more senior students imitate faculty members and try to forecast what questions they may ask at such an examination.

This examination holds great importance to your career and to your development as a scientist. While daunting, it is one of the only times you will spend an inordinate amount of time learning about a subject area that interests you enough to seek a terminal degree. With proper preparation, you will look back at this time fondly.

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