

January 30, 2001

GEOLOGY GUIDELINES FOR THESIS RESEARCH PROPOSAL OREGON STATE UNIVERSITY

The Geology Program of the Department of Geosciences requires a thesis proposal for MS and PhD candidates of no more than 10 pages (MS) or 15 pages (PhD), double-spaced (excluding figures and references). The title page must be dated and must bear signatures of the major professor and two other thesis committee members. The format is modeled after that of research proposals prepared for grant funding. The writing should be polished, and the manuscript should use reference conventions of one of the major journals of geology. As a manuscript, the right margin should not be justified. The proposal must be distributed to and approved by the thesis committee by the 7th week of the 3rd term (May 13) before conducting significant thesis research. Students embarking on thesis research without an approved proposal do so at their own risk, as the thesis committee may require substantial changes or additions to the program, or not approve it. Approval of a thesis proposal by the thesis committee is one of the requirements for advancement to candidacy for both the MS and PhD degrees.

The research proposal should try to answer the following basic questions: **What** (research problems you are proposing to answer)? **Why** (are these research problems significant)? **How** (do you propose to answer these problems)? The proposal should include the purpose, significance, research objectives, relevant background information citing previous publications, methods, a timetable, sources of funding (where appropriate), a reference list, and figures and tables as necessary. The candidate may want to submit the proposal, or a modified version of it, to an agency for funding.

Purpose, Significance, and Research Objectives. -- This section should clearly spell out what is the geologic problem that you are addressing, what are the general objectives of your study, and what is the significance of your proposed research to understanding the geologic problem. Be as specific as you can.

Relevant Background Information. -- Provide specific data and theories from previous studies that are relevant to understanding your research problem. For example, if your research emphasizes structure, you should review previous structural studies of the area and the current hypotheses for structural development, but should use little text on petrology or paleontology. This section should convey pertinent geologic information with appropriate literature references, and not merely list the authors chronologically without any information.

Methods. -- The proposal should state specific methods to be employed to reach the objectives. Examples would be geologic mapping, K-Ar radiometric dating, dating of sedimentary rocks using fossils, projection of subsurface geology using geophysical and drill data, construction of retrodeformable cross-sections, and so forth. Where equipment and facilities are not available in the Department of Geosciences, you should state your plans to obtain access.

Timetable. -- A timetable should present a tentative schedule in tabular form for completion of classes, field studies, laboratory work, and preparation of the thesis (at least one term should be planned for that preparation).

Budget. -- If the thesis requires funding for expenses (that is, fieldwork, laboratory analyses, computer time), you should prepare an itemized list with estimated costs and an outline of plans for funding (including out-of-pocket).

References. -- List all the references cited in the text by the alphabetical order of the first author, following the format of a major geologic journal, such as the Geological Society of America Bulletin.

Figures and Tables. -- Figures and tables should be used only when necessary for understanding the proposal. Good quality illustrations can be composed and printed using personal or departmental software and hardware. Location maps should be combined with summary geologic maps or other figures.

Note: -- You will find that it will be easy to exceed the 10-page (MS) or 15-page (PhD) limits for the proposal. Try to be concise, but also clear. If necessary, omit sections of marginal importance rather than shortening important sections to the point that they are vague or incomplete. After you have completed the proposal, ask yourself if you would approve or fund this proposal if it were submitted to you for evaluation.