DOCTORAL THESIS-RESEARCH-PROPOSAL REVIEW

To: Ph.D Candidates Preparing to Satisfy this Program Requirement

From: K.O. Findley
Chair, Graduate Affairs Committee

Subject: Purpose and Format for Preparation of Thesis-Research Proposal and Ancillary Details

Preamble: Ph.D. candidates are expected to schedule their Doctoral Thesis-Research-Proposal Review within 6 months of completing the Qualifying-Process (Written and Oral) Examinations.

The Thesis-Research Document:

I) Serves as the Thesis-Research Proposal, presented to the Candidate’s Doctoral Thesis Committee, that outlines the research that will be conducted to satisfy the requirements for their Doctoral Thesis. The Document may also present exploratory/preliminary results that provide support for the research being proposed. It is organized by the MME Department in compliance with the requirements of the Graduate School as outlined in the Doctor of Philosophy requirements in the Graduate Bulletin. Furthermore, the meeting is chaired by a MME faculty, other than the candidate’s advisor or co-advisor. It should be noted that this event is not an Examination.

The candidate is responsible for arranging all details regarding the Review Meeting with his/her Thesis Committee. Once arrangements have been made, this information is conveyed to the MME Graduate Program Assistant, at least two weeks before the scheduled date.

II) Serves as a (retrospective) draft for the Thesis-Research Progress-Review that the candidate presents to their Ph.D. Thesis Committee. It should be noted that, similar to the Thesis-Research Proposal, the Thesis-Research Progress-Review is not an Examination, nonetheless, it is a MME Department requirement. The exercise is therefore also chaired by a MME faculty, other than the candidate’s advisor or co-advisor.

Proposal Format and Distribution Details

Excluding the cover page, the Document should not exceed fifteen (15) pages, including figures, prepared in a font that would be used for a technical publication, and font size of either 11pt or 12pt — please include page numbers, and sign the cover page. Once the document is complete, please distribute a copy to all committee members and the MME program assistant. The format is flexible but should contain content as shown by the example section headings on the following page. The proposal should also clearly convey the research questions/hypotheses of the work.

1. Summary
This section, as its title implies, is a Precis (i.e. a concise abridgment) of the information contained in the document.

2. Background and Justification for Conducting the Research
This section should contain information related to the topical-area of the research, including a short summary of the pertinent literature, and how the research will benefit the Metallurgical (and/or) Ceramics Science/Engineering Field(s).

3. Methodology
This section may include anything appropriate for the thesis committee to evaluate the proposed work such as the following information:

**Experimental Methodology:**
Information and an overall critique, with limitations, of the proposed technique(s), etc., on the laboratory experiments which are to be conducted should be provided. Brief, but sufficient details should be provided so that an assessment can be made by the Thesis Committee as to the degree of difficulty, and probability of success, of this proposed laboratory-investigation. The methods to be employed in analyzing or interpreting the acquired data must also be provided.

**Analytical/Modeling Experiments**
Information should be provided on the theoretical and/or semi-quantitative aspects of the research. Again, sufficient detail must be provided so that an assessment can be made by the Thesis Committee as to the degree of difficulty, and probability of success, associated with this research-component. Also, how this research-component will complement, or be integrated with, the laboratory-experiments component should be clearly defined.

4. Previous Research Results
Previously obtained and pertinent research results should be provided and discussed in light of how they will guide future research.

5. Schedule/Time-Table
This section is the conclusion of the Document and should present in tabular ("preferred), or other convenient form, the time-frame in which the research components, including the preparation of the thesis, are to be accomplished. If preliminary research has already been conducted, this must also be included, even though it refers to a time-period prior to the submittal-date of the Document. Introduce this section with a sentence or paragraph describing the information it contains.

Attachment: Sample of Cover-Page
Title

Submitted by:

to

Ph.D. Thesis Committee
(List names of Committee Members below this heading)
Start with Advisor/Co-Advisors
Remaining members in alphabetical order)
Date Submitted: ________________