(1) Use Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger, or

(2) Use Times New Roman at a font size of 11 points or larger, or

(3) Use Computer Modern fonts at 11 points or larger (this is mostly symbols).

(4) **Double-spaced.** 

Smaller fonts may be used in mathematical formulas, equations, figures, figure captions, table labels/captions, and symbols/special characters as long as they are easily readable.

No more than 6 lines of text within a vertical space of 1 inch.

Margins in all directions must be at least 1 inch.

# 350 Words

For the doctoral dissertation, an abstract not to exceed 350 words is to be included. The abstract should state the research problem briefly, describe the methods and procedures used in gathering data or studying the problem, and give a condensed summary of the findings of the study. The abstract heading, prepared according to sample page in the Appendix or at <a href="http://graduate.ucr.edu/Dissertation.html">http://graduate.ucr.edu/Dissertation.html</a>, must include the title of the dissertation, your name as it appears on your records at the Registrar's Office, the degree, graduate program, name of the institution, date of award of degree, and the name of your committee chairperson.

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Not part of 15 page limit

# **PROJECT DESCRIPTION**

## <15 pages max>

The following sections provide an outline of the major components of a proposal. They can be rearranged at the authors/advisors discretion.

## 1. Motivation

Provide a clear introduction and motivation to conduct the dissertation research.

## 2. Research Objectives

Define the objectives of your research clearly. Provide a list/summary of goals and hypothesis driving research. Highlight the proposed expected significance.

### Additional Considerations for Expected Significance

Does the project address an important problem or a critical barrier to progress in the field? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field? How will the proposed research significantly advance knowledge in a defined problem?

#### Literature Review

A thorough literature search will help establish the importance of the research, what has previously been accomplished, and the current knowledge gaps in the field.

## 3. Research Plan/Research Approach (focus on future work)

Include a broad design of activities to be undertaken

Provide methods and procedures (facilities/equipment)

Describe modeling (theory and key equations; as appropriate)

#### Additional Considerations for Approach:

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?

#### 4. Innovation/Broader Impacts

Discuss novel contributions of proposed PhD project and potential benefits to field and society at large

Additional Considerations for Innovation:

Does the application challenge and seek to shift current research or practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed? Are the anticipated results expected to lead to major research advances?

## 5. Results to date

This section should support goals and aims of your research and provide evidence that the proposed ideas and timeline are feasible. The section should not to be more than  $\sim$ 30% of proposal length.

# 6. Project Timeline

All proposals should include a timeline for the proposed research and a schedule for completion of degree. The timeline can be in graphical or tabular format. The timeline should include how results will be disseminated to enhance scientific and technological understanding

<end 15 pp limit.>

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