

# Master of Biomedical Science Thesis Proposal Guidelines

## GUIDELINES FOR THESIS PROPOSAL

Presentation and defense of the proposal is required for the student to qualify for candidacy. It does not require that the thesis research is nearly completed but should show an ability to plan and interpret experiments and a familiarity with the background literature.

### **1. Abstract**

This should describe briefly the background, main hypotheses, significance and main methods used in the project. It should be no longer than 15 lines of text.

### **2. Specific Aims**

These should be broad and present the “big picture”. They should include the main hypotheses and how these will be tested. There should probably be one or two specific aims for a MS thesis. This section should be about half a page (single spaced).

### **3. Background and Significance**

This section presents the problem that will be investigated, the rationale for the project, the relevant background (scientific literature), and how the proposed work will contribute to the field. This should be about 2 pages long.

### **4. Preliminary results**

This should describe the work that you have done on the project and provide, as appropriate, experimental data that support your hypotheses and approach. If you have contributed to any publications or abstracts these can be included. This section can be as long as needed since it may include Figures and Tables but should summarize the principle findings.

### **5. Research Design and Methods**

Explain in this section how you will carry out the research, including an overview of the experimental design, a description of specific methods to be used and a description of how results will be analyzed. Discuss any problems that you anticipate and how they will be dealt with. The text of this section should be about 3 to 4 pages long.

### **6. Human Subjects or Vertebrate Animals**

If your work involves either of these, you should provide an explanation of how it conforms to NIH and FAU guidelines.

When preparing the written proposal, we suggest that you start with the Specific Aims section first, followed by the Preliminary Results and Research Design & Methods, and Background and Significance sections. Write the Abstract last.

All proposals must include references.

## **Thesis Proposal Formatting Requirements:**

Font size: 12 point

Margins: 1 inch

Line spacing: single-space

All proposals should adhere to the following format for citations and references:

### **References**

#### ***Citation in text***

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either "Unpublished results" or "Personal communication". Citation of a reference as "in press" implies that the item has been accepted for publication and a copy of the title page of the relevant article must be submitted.

#### ***Web references***

As a minimum, the full URL should be given. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Reference to material which is available on the Internet but has not been published elsewhere should be made in the text only and should not be included in the reference list.

#### ***Reference style***

References should be listed at the end of the manuscript. They should be listed in the order in which they appear in the text, tables, and figure legends and numbered sequentially. When cited in the text, reference numbers should be superscripted. Only papers that have been published or accepted should be cited in the reference list. The title of the article, the volume number, and first and last pages should be cited. Journal titles should be abbreviated, e.g.,

1. Sanger, F. & Coulson, A. R. (1975). A rapid method for determining sequences in DNA by the primed synthesis with DNA polymerase. *J. Mol. Biol.* 94, 441-448.
2. Goto, Y., Calciano, L. J. & Fink, A. F. (1990). Acid-induced folding of proteins. *Proc. Natl. Acad. Sci. USA* 87, 573-577. Articles in books should include the title of the article, the name of the book, editor(s), edition number, first and last page numbers, the name and the location of the publisher, e.g.,
3. Hanks, S. K. & Hunter, T. (1995). The eukaryotic protein kinase superfamily. In *The Protein Kinase FactsBook: Protein-Serine Kinases* (Hardie, G. & Hanks, S., eds), pp. 747, Academic Press, London.

### **Journal abbreviations source**

SI units and the system of abbreviations and symbols formulated by the IUPAC-IUB Combined Commission on Biochemical Nomenclature should be followed. When non-SI units are used, their equivalent SI units should be given. Genetic names should be described according to the appropriate conventions. Genus and species names should be written in full at first use and in italics (e.g., *Escherichia coli*, *Caenorhabditis elegans*).