Guidelines for Preparing a Final Paper
Summer Intern Program, 2016

Your final paper is due on August 5th, 2016. Your mentor should review your draft(s) and you should make any recommended changes <u>before</u> you submit copies to Rochelle, Jenny and myself via email. We will prepare a printed collection of the final papers for distribution to the group and will retain a copy for the program files. Please name your paper **LastName_FinalPaper.**

You will also be making a Power Point presentation of your project results to the VIMS community on August 3rd, 2016. You will have 15 minutes to speak with an additional 5 minutes for questions from the audience. On Aug 1st, you will practice your presentations for the REU TA and other interns. On Aug 2nd, you will practice your talk for the mentors. More details about these presentations and schedules for the talks will be sent to you later.

NOTE: *The following guidelines include important instructions on formatting your final paper. Please strictly adhere to these instructions. Papers not complying with these formatting instructions will be returned to you for modification, and cannot be accepted until properly formatted. Please see the attached template for more info on formatting.*

General guidelines:

- Please limit your final paper to *10 pages or less*, including any figures, tables and references, but not counting the title page.
- **Use landscape formatting and double columns for the entire paper. This is a formatting requirement for the final booklet that includes all the papers.**
- The document should be 1.5-spaced, 12 pt. Times New Roman font, with page numbers and 1" margins.
- Italicize genus and species names of animals and plants.
- When possible, use the active over the passive voice, particularly if you know who or what performed the action.
- Define any abbreviations or acronyms parenthetically the <u>first time</u> that they are used.
- All figures and tables must be referenced in the text. Include figures and tables on separate pages after the text of your paper (in Word). Make sure your figures appear correctly on a PC, especially if they were created on a Mac.
- Ask your mentor (or the TA) about using citation software for your Literature Cited.

Note: the following information on how to compose a scientific paper is originally from Dr. Deborah Bronk and has been modified slightly. Please consult with your mentor for guidelines as well, since they must be happy with the final paper too!

Specific guidelines:

Cover Page:

Please make a cover page that includes the following information: 1) title of the project 2) your name and home institution; 3) name of your mentor; and 4) date submitted.

Title: It is a label - not a sentence

- Fewest possible words to adequately describe the contents of the paper
- Do not waste words (Studies on..., A, The, Investigations on....)
- Can state your major finding

Format: All text will be Times New Roman font.
>   Title = **bold**, 16 point font, centered on page
>   Your name and home institution = regular, 12 point font, centered on page, two lines
>   Name of mentor(s) = regular, 12 point font, centered on page
>   Date = regular 12 point font, centered on page
>   Synopsis = start with the italicized, underlined word "*Synopsis:*" followed by your text in
>   regular 12 point font, centered on page

The facing page should include -

A) Short synopsis: Summarizes the most significant findings of *your* research. This is *in addition* to the Abstract. Limit to 2 – 3 sentences. *This is a reporting requirement for the NSF.*
Format: All text will be Times New Roman font.
>   Title = **bold**, 16 point font, centered on page
>   Your name and home institution = regular, 12 point font, centered on page, two lines
>   Name of mentor(s) = regular, 12 point font, centered on page
>   Date = regular 12 point font, centered on page
>   Synopsis = start with the italicized, underlined word "**Synopsis:**" followed by your text in
>   regular 12 point font, centered on page

B) Abstract:
- Should *not exceed 250 words*, single paragraph
- Should 1) State the principal objectives & scope of investigation
    2) Describe methods
    3) Summarize the results
    4) State the principal conclusions
- Use the past tense
- No references to the literature

Format: Start with the italicized, underlined word "**Abstract**:" followed immediately by your text in regular 12 point font.

Introduction:
- Supply sufficient background to evaluate the results without going to the literature - keep literature review "neat and tidy"
- Hook the reader - why did you chose *this* subject and why is it important?
- Should 1) State the nature and scope of the investigation
    2) Review the pertinent literature
    3) State the reasons for the method of investigation
    4) Summarize what you did and why
    5) Pose specific questions that you answer with your results
- Use the present tense out of respect for published literature

- When citing a publication in the text, refer to the author's name (without initial) and year of publication.
- When referencing a publication by two authors, both names should be given using "and", followed by the year. If reference is made to a publication written by more than two authors, the name of the first author should be used followed by "et al.", and then the year.
- References cited together in the text should be arranged chronologically.

Format: Start with the italicized, underlined word "**Introduction:**". Start your text on the *next line* in regular 12 point font. Subheadings should be italicized, 12 point font with colon.

Methods:

- Describe in detail the techniques you employed in your research
- Use the past tense
- When possible, use paragraph structure (maybe even headings) that matches the results
- Do <u>not</u> include results

Format: Start with the italicized, underlined word "*Methods:*". Start your text on the *next line* in regular 12 point font. Subheadings should be italicized, 12 point font with colon.

Results:

- Provide an overall description of the results - the "big picture"
- Present the data, just the data, no discussion of the data
- Use the past tense
- Do not be redundant - never present data more than one way (figure, table, or text)
- Do not be verbose when citing tables or figures

Format: Start with the italicized, underlined word "**Results:**". Start your text on the *next line* in regular 12 point font. Subheadings should be italicized, 12 point font with colon.

Discussion:

- Remember - most discussions are too long
- Should 1) Present the principles, relationships, and generalizations shown in results
  - 2) Discuss - not recapitulate the results
  - 3) Point out any exceptions or lack of correlation and define unsettled points
  - 4) Show how your results agree or contrast with published work
  - 5) Discuss the theoretical or practical implications
  - 6) State the conclusions as clearly as possible
  - 7) Summarize your evidence for each conclusion
- Be sure to convey the significance of the results
- Always end with a brief summary or conclusion regarding the significance of the work
- Be sure not to extrapolate too much - calls you into question

Format: Start with the italicized, underlined word "**Discussion:**". Start your text on the *next line* in regular 12 point font.

Acknowledgements:

- Thank individuals who contributed ideas, technical help, or equipment and supplies
- Acknowledge financial assistance from the NSF REU grant to Drs. Schaffner and Seitz, and from your mentor (ask them for grant info)

- Do not phrase the acknowledgments in such a way that it implies an endorsement from those you are thanking
- Never use the word "wish"…ex: "I wish to thank…" = not good.

Format: Start with the italicized, underlined word "**<u>Acknowledgements:</u>**". Start your text on the *next line* in regular 12 point font.

<u>Literature Cited:</u>

- All publications cited in the text should be presented in a list of references following the text of the manuscript.
- The list of references should be arranged alphabetically on author's names, and chronologically per author.

  <u>An example is:</u>

  Jones, H.D., Richards, O.G., Southern, T.A., 1992. Gill dimensions, water pumping and body size in the mussel *Mytilus edulis* I. J. Exp. Mar. Biol. Ecol. 155(2), 213-237.

Format: Start with the italicized, underlined words "**<u>Literature Cited:</u>**". Start your text on the *next line* in regular 12 point font.

<u>Tables:</u>

- Do not construct a table unless repetitive data <u>must</u> be presented
- Whenever you can easily put data into words or pictures - DO!
- Organize tables so that like elements read down.
- Words should line up on the left, numbers on the right.
- **Table captions go above the table**, and should be descriptive enough so the reader doesn't need to refer to the text to understand the table.
- Tables should be numbered sequentially according to how they are referenced in the paper.

Format: Table titles should be in **bold** 12 point font, for example "**Table 1:**". Table heading text should be in regular 12 point font.

<u>Figures:</u>

- If there is only one curve on a graph - can you describe it in text?
- Make sure your figures will look good printed in black and white.
- Use boxed graphs with marks pointing in only
- Do not use different symbols and different lines
- Use open and closed symbols together - they look different
- **Figure captions go below the figures**, and should be descriptive enough so the reader doesn't need to refer to the text to understand the figure.
- Figures should be numbered sequentially according to how they are referenced in the paper.

Format: Figure titles should be in **bold** 12 point font, for example "**Figure 1:**". Figure legend text should be in regular 12 point font.