**Instructions for Using the Capstone Paper Template**

(For Microsoft Word for Mac Version 15.32)

***Note:*** *The following instructions pertain to use of the capstone paper template, which contains formatting, etc. as per APA (American Psychological Association) Style as well as additional guiding information. Further details regarding APA style may be found at the Purdue University Online Writing Lab ("OWL Purdue," n.d.). Further details regarding scientific writing in APA Style are presented by Marek (n.d.). And, further details regarding developing research proposals and conducting research in environmental science are presented by* Stewart et al. (2009)*.*

1. **Square Brackets** – Square brackets throughout the corresponding capstone paper template indicate where text should be added by the student **and should be deleted after the correct information has been added**. Once you develop your first draft, it is helpful rename the file according to this convention: "Last name, first initial NESC 499B Capstone Paper Draft date." So, "Smith, J. NESC 499B Capstone Paper Draft 5-5-17" might be the new file name.
2. **Margins, Font, Pagination, Line Spacing, etc.** – **Margins:** The paper should include 1" margins on all sides for printing on 8.5" x 11" paper. **Font:** The paper should be typed in 12-point Times New Roman font. **Pagination:** The capstone paper may be considered to consist of four basic parts: the Title Page, preliminary sections, Main Body of Text, and supplementary sections. No pagination (page numbering) is included on the Title Page. Pagination for subsequent preliminary sections should be using lowercase Roman numerals centered in the footer (i.e., from the Abstract, identified as page "ii," up to, but not including the Introduction). The text pages (from the Introduction through the References) and supplementary sections (such as an Appendix or appendices and an Index) should include pagination using Arabic numerals. **Line Spacing:** The entire paper should be double-spaced.
3. **Headings and Seriation:** Five heading levels are defined in APA Style. Examples are provided in the corresponding capstone paper template, which may be copied, pasted, and modified as necessary. APA Style headings are to be formatted as indicated below:

Level 1: **Centered, Boldface, Uppercase and Lowercase Headings**

Level 2: **Left-aligned, Boldface, Uppercase and Lowercase Heading**

Level 3: **Indented, boldface, lowercase heading with a period.** Begin body text after the period.

Level 4: ***Indented, boldface, italicized, lowercase heading with a period.*** Begin body text after the period.

Level 5: *Indented, italicized, lowercase heading with a period.* Begin body text after the period.

1. **Title Page** – The Title Page is required as included in the corresponding capstone paper template. Additional committee members may be identified as appropriate, and formatting may be adjusted to fit all the committee information on the Title Page, if desired.
2. **Preliminary Sections** – These may be considered to include the preliminary sections to your paper (i.e., Abstract, Dedication, Acknowledgements, Table of Contents, List of Tables, List of Figures, List of Abbreviations, List of Symbols, and Glossary), which are further discussed below.
3. **Abstract** – The Abstract should not be indented and, like the heading for References, the heading for this section is not in bold text, as is the case with some headings. As per the Purdue University Online Writing Lab (*"OWL Purdue," n.d.*), it should contain a concise summary of the key points of your research (at least your research topic, research questions, participants, methods, results, data analysis, and conclusions). It may also include possible implications of your research and future work you see connected with your findings. The Abstract should be a single paragraph, double-spaced, and containing between 150 and 250 words. It may also contain a list of keywords from your paper, which are words or phrases that indicate the most important aspects of your paper and which help researchers find your work in databases, if your paper may be published. The keywords should not be capitalized, they should be delimited by commas, and no period is included at the end of the list.
4. **Dedication**– This section is optional, is not defined in APA Style, but may be included if you wish to dedicate your work to someone special and include the reason for the Dedication.
5. **Acknowledgements** – This section is optional, is included in APA Style, and may be included if you wish to acknowledge various sources of assistance and support, including faculty, research funding, etc.
6. **Table of Contents** – This section is optional, is not defined in APA Style, and may be included as indicated in the corresponding capstone paper template. **Important formatting note:** Microsoft Word allows for the automatic generation of the Table of Contents when the various elements are properly formatted as indicated in these instructions and the corresponding capstone paper template. However, Microsoft Word is not designed to properly format the Table of Contents to include all aspects of APA Style formatting, in particular table numbers and titles. Therefore, the following tip is recommended. **Tip:** If you are including tables using APA Style, label them as follows, with all the text on a single line:

Table 1 *Text (description of table)*

**Important:** Once you have completed your paper, update the entire Table of Contents, and then return to your tables and format them as follows, with information on two lines, as per APA Style:

Table 1

*Description of table*

This will allow your Table of Contents to include all the table information, and to allow your tables to follow APA Style.

1. **List of Tables** – This section is optional, is not defined in APA Style (although table numbers and titles are), but is an appropriate way to provide easy reference to any tables that may appear in your capstone paper. Following are instructions for inserting tables in your paper using Microsoft Word (i.e., Microsoft Word for Mac Version 15.32; slight differences may exist for the comparable Windows version):

*To include a table number and title (which in APA Style is placed above the corresponding table), do the following:*

a. Select the References tab.

b. Click on "Insert Caption" and type in your caption label.

c. Select "Table" to create a table number and titles.

d. Click "OK" to insert the table number and title in your paper. This table is now formatted to be included in the List of Tables, once it is created as per the following instructions.

*To include this and other table numbers and titles in your List of Tables, do the following:*

a. Go to the page with your "List of Tables" section.

b. From the References tab, select "Insert Table of Figures."

c. Select "Table" under "Caption label."

d. Click "OK."

This creates the List of Tables, including all tables included in your paper. If you add or delete tables, you will need to refresh the List of Tables. Also, to maintain APA Style for your table numbers and titles, also read the instructions for the Table of Contents.

1. **List of Figures** – This section is optional, is not defined in APA Style (although figure numbers and titles are), but is an appropriate way to provide easy reference to any figures that may appear in your capstone paper. Figure numbers and titles and a Table of Figures may be created as indicated above for tables but substituting "figure" for "table" where appropriate. Note that figure numbers and titles as per APA Style will be included in the Table of Contents without additional formatting requirements. Figure numbers and titles will appear in your text as follows:

*Figure 1.* Description of figure.

1. **List of Abbreviations** – This section is optional, is not defined in APA Style, but is an appropriate way to indicate any abbreviations used in the paper, if necessary for clarity.
2. **List of Symbols** – This section is optional, is not defined in APA Style, but is an appropriate way to indicate any special symbols used in the paper, if necessary for clarity.
3. **Glossary** – This section is optional, is not defined in APA Style, but is an appropriate way to indicate any special terms and their definitions used in the paper, if necessary for clarity.
4. **Main Body of Text** – APA Style does not define the structure of papers such as a capstone paper, but this section may include an Introduction, Materials and Methods, Results, and Discussions and Conclusions. These sections may be modified, depending on the nature of the research conducted and author preference. Chapter numbers and subsections, if desired, may be used for lengthier papers.
5. **Introduction (e.g., Chapter 1)** – This section is included in APA Style, and other sources provide guidance on what to include here (e.g., Marek, n.d. and Steward et al., 2009). This should minimally address the following:

a. Background to the research: Identify the topic, problem, or research question involved in your capstone project, ideally to include key words from your project title to ensure that you provide a good focus at the beginning. Establish the context of your research. This should include a brief and balanced review of published literature that pertains to your subject. Here you should summarize what is already known about the subject before you began your research. In your general review of the pertinent literature, include citations for sources that you will include in your References section. Reserve fuller and more detailed information, if appropriate, for your Discussion and Conclusions. Lead to the purpose and/or hypothesis of your research by going from a more general context as indicated in your literature review to your more specific research topic.

b. Rationale for the research: Provide a brief, clear statement of the rationale for your choice of and approach to the research topic.

c. Purpose of the research: Include a clear and concise statement of the purpose or hypothesis of your research.

d. Significance of the research: If this has not already been stated, indicate briefly why the research is significant.

e. Describe where your research was conducted.

f. Describe with whom your research was conducted (e.g., including support personnel).

1. **Materials and Methods (e.g., Chapter 2)** – This section is included in APA Style, and other sources provide guidance on what to include here (e.g., Marek, n.d. and Steward et al., 2009). This should minimally address the following:

b. Describe the materials used in your research (e.g., the tools, equipment, apparatus, etc. involved, including why these materials were used).

c. Describe the methods used in your research (e.g. how data were collected and how data were analyzed, including why these methods were used).

1. **Results (e.g., Chapter 3)** – This section is included in APA Style, and other sources provide guidance on what to include here (e.g., Marek, n.d. and Steward et al., 2009). This should minimally address the following:

a. Present a summary of your data or your key results without interpretation.

b. Use tables and figures to illustrate key results.

c. Organize the Results section as a logical narrative, with tables and/or figures paralleling the narrative.

d. Include statistical test results, if appropriate.

e. Report positive results as well as negative results, which may indicate an incorrect hypothesis.

Note: Citations are not required in this section.

1. **Discussion and Conclusions (e.g., Chapter 4)** – This section is included in APA Style, and other sources provide guidance on what to include here (e.g., Marek, n.d. and Steward et al., 2009). This should minimally address the following:

*Discussion:*

a. State your conclusions as supported by data and analysis.

b. Interpret your results with respect to the original research question and based on previously published research (including citations, as appropriate) and explain how your findings may contribute to understanding of the research topic.

c. Include why you think you obtained your results without repeating your results.

d. Indicate the significance of your results.

e. Relate your work to previous studies.

f. If appropriate, explain unexpected results.

g. Indicate scope and limitations of your research including, for example, what further research could help to more fully address your topic.

h. If appropriate, present recommendations based upon your research.

*Conclusions:*

a. Restate the major finding and implications of your research, including answers to questions that motivated the research as indicated in the Introduction.

b. Discuss new research questions that may have emerged from your research and what future research may be warranted to more fully address your research topic, etc.

1. **References** – This section is included in APA Style, and your References should appear at the end of your paper. This section provides the information necessary for a reader to locate and retrieve any source you cite in the body of the paper. Include all cited sources in your References and cite all sources in your References. Your references should be indented (with ½" indents), arranged in alphabetical order, and otherwise formatted and cited according to APA Style.

**Note:** NoodleTools Express is a free bibliographic citation generator ("NoodleTools Express," n.d.) and other NoodleTools resources also are available elsewhere ("NoodleTools," n.d.) These include American Psychological Association (APA) Style, which is acceptable for use in this paper.

1. **Appendix/Appendices** – Appendices are used to include detailed information in your paper that would be distracting in the main body of the paper. Examples of items to include in the Appendix include a questionnaire used in the research, a detailed description of an apparatus used in the research, a detailed protocol used in the research, etc. Each distinct item should have a separate appendix. If your paper only has one appendix, label it "Appendix" (without quotes.) If there is more than one appendix, label them "Appendix A," "Appendix B," etc. (without quotes) in the order that each item appears in the paper. In the main text, you should refer to the appendices by their labels.
2. **Index** – This section is optional, is not defined in APA Style, but may be helpful to include in a lengthy and detailed paper if you may wish for the reader to be able to easily locate terms or topics not listed in the Table of Contents.

*To mark index entries, do the following:*

a. Select the References tab.

b. Highlight the entry to be included in the Index.

c. Click on "Mark Entry" on the References tab.

d. Click on "Mark."

*To include marked entries in the Index, do the following:*

a. Select the References tab.

b. Click on "Insert Index."

c. Click on "OK."

References

Marek, P. (n.d.). *The basics of science writing in APA Style*. Retrieved from http://www.macmillanlearning.com/catalog/uploadedfiles/content/worth/custom\_solutions/psychology\_forewords/marek\_ch04\_apastyle\_color.pdf

NoodleTools. (n.d.). Retrieved from http://www.noodletools.com/

NoodleTools express. (n.d.). Retrieved from http://my.noodletools.com/noodlebib/express.php

OWL Purdue online writing lab. (n.d.). Retrieved from https://owl.english.purdue.edu/owl/

Stewart, A. M., Bowman, K., Buckley, S., Graves, M., Landis, C., Patterson, N., . . . Werner, N. (2009). *A research guide for students and teachers* (Field test version ed.). http://www.esf.edu/outreach/sciencecorps/documents/ResearchGuide\_NSFGK12.pdf