

## DEPARTMENT OF BUSINESS & ECONOMICS

### Business 620 and Economics 620: The Senior Project

The Senior Project is a significant piece of analysis that provides students with the experience of doing independent research under the guidance of a faculty advisor. The primary goal of BUS 620 and ECON 620 is to provide an opportunity for the intensive analysis of a business or economic issue. Elements of a successful Senior Project are a clear research question, a literature review, hypotheses drawn from the literature, and the testing or verification of those hypotheses through the careful use of evidence.

The Business & Economics Seminar (ECON 570-589) should be taken in the spring semester of the junior year or the fall semester of the senior year followed by BUS 620 or ECON 620 in the following semester. One goal of the Seminar is to allow the student to do background research, develop a research question, and find evidence. The student should also write a preliminary chapter of the Senior Project during the Seminar. The expectation is that the instructor of the Seminar will be the first reader on the Senior Project.

Towards the end of the Seminar, students fill out a short proposal form and provide a preliminary title, a brief description (100 words maximum), and requests for first and second readers. If the requested first reader is not the instructor of the student's Seminar, the student must provide justification for switching advisors. The student will schedule a proposal meeting with both readers during the first two weeks of the Senior Project semester. Students should consult their first readers concerning the agenda for the proposal meeting and distribute any documents to be discussed at that meeting at least one week prior to the meeting. The proposal defense lasts approximately twenty minutes.

BUS and ECON 620 are devoted to the full development of the research question, the analysis and application of theory, writing, revision, and the oral defense. These tasks should be done under the close supervision of the first reader. A schedule for the second semester will be provided on the Department of Business & Economics website: <http://sites.alleggheny.edu/econ/senior-projects/> The final oral examination occurs towards the end of the second semester and lasts approximately one hour. If the project advisors believe that the project has no chance of receiving a passing grade, the final oral will be canceled. During the first five minutes of the final oral, the student delivers a prepared overview of the research question and the major findings of the Senior Project. At the conclusion of the final oral, the student is informed whether a passing grade will be received. The final grade is based on the grading criteria provided in Appendix A.

Students completing one Senior Project for a double major must register with the registrar's office for a Senior Project that lists both majors. Guidelines for double majors will be worked out with the first readers from both departments.

## **GENERAL STYLE GUIDELINES**

There are several guidebooks for students doing a research project for the first time. Particularly useful ones are:

Neugeboren, R. and M. Jacobson (2001) *Writing economics*. The President and Fellows of Harvard University. <https://writingproject.fas.harvard.edu/files/hwp/files/writingeconomics.pdf>

Purdue Online Writing Lab (n.d.) APA overview and workshop.

[https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_overview\\_and\\_workshop.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_overview_and_workshop.html)

### **A. COVER PAGE AND TITLE PAGE**

Students are encouraged to add photographs, illustrations, or other appropriate images to their Senior Project cover to enhance its visual appeal. The format that the title page must follow is provided on the Department of Business & Economics website: <http://sites.alleggheny.edu/econ/senior-projects/>.

### **B. THE ORDER**

Arrange the various parts of your paper in the following sequence:

- Cover Page
- Frontispiece, such as an epigraph (if any)
- Title Page
- Acknowledgements or dedication (if any)
- Table of Contents
- List of Figures
- List of Tables
- Summary of AI Use by Author
- Abstract
- Introduction
- Main Body
- Appendixes\* (if any)
- Bibliography
- About the Author

\*Appendixes may be placed immediately after the chapter for which they specifically provide additional information. If the material in the appendix is of a more general nature, the preferred placement is at the end of the Project, before the Bibliography.

### **C. ABSTRACT**

The abstract is roughly 200 words long and summarizes the thesis and contents of the Project. It should contain a statement of the thesis, procedures and methods, results, and the conclusions. For examples of abstracts, see any article in the *American Economic Review*.

### **D. NUMBERING OF PAGES**

Each page is numbered. However, the number is not shown on the Title Page. All pages prior to the introduction are numbered using small Roman numerals (ii, iii, iv, v, etc.). The Title Page counts as page i, unless there is a frontispiece. Number the pages of the body of the work with Arabic numerals (1, 2, 3, etc.) starting with the Introduction and continuing consecutively to the end of the About the Author page. Page numbers are placed on the bottom center of the page.

#### **E. CHAPTER SECTIONING AND SPACING OF MATERIAL**

Each chapter should begin with the chapter number and the title of the chapter. Further subdivide the chapter into Sections and Subsections according to the logic of the material presented. The introductory section of the chapter needs no heading or number; subsequent section headings should be given Roman numerals; subsections should be lettered A, B, etc.

#### **F. TABLES AND FIGURES**

Tables and figures must be numbered consecutively, and the numbering must correspond to the numbering given in the Table of Contents. Each chapter should begin the numbering anew. For example, Table 2.1 would be the first table in Chapter 2, Table 3.1 would be the first table in Chapter 3, and so on. Tables and Figures must be titled clearly. The source and other general notes referring to the table are given directly below the table. On this and other matters consult Turabian or Hacker. A table or figure may be scanned from other sources and pasted in its proper place in the paper only with proper documentation. Such tables and figures must be renumbered to conform to your number sequence. Tables and figures should be incorporated into the main text unless they are more than a page long, in which case they should be given as an appendix.

#### **G. FORMAT**

Double-space all material including abstracts, text, references, footnotes, and table headings. One-inch margins are required.

#### **H. FOOTNOTES**

Footnotes should be at the bottom of the page, numbered consecutively with Arabic numerals, and double-spaced.

#### **I. MATHEMATICAL EQUATIONS**

Equations should be typed on separate lines and numbered consecutively at the left margin, using Arabic numerals in parentheses.

#### **J. SYMBOLIC NOTATION**

When used, notation should be listed, summarized, and briefly identified in a separate table.

#### **K. USE OF MATHEMATICAL APPENDIX**

Authors are encouraged to use an appendix for technical proofs and derivations that can be separated from the main text. The appendix should follow the text and precede the references.

#### **L. QUOTATIONS**

Quotations must correspond exactly with the original in wording, spelling, and punctuation. Page numbers must be given. Changes must be indicated: Use brackets [ ] to identify insertions; use ellipses (...) to show omissions. Indicate if emphasis (e.g. adding italics) has been added. Only quotations of over 50 words should be separated from the text. These quotations should also be double-spaced and indented at the beginning margin.

#### **M. SPELLING**

The authority for spelling, capitalization, and hyphenation of words is Webster's Collegiate Dictionary.

#### **N. REFERENCE TO INDIVIDUALS IN THE TEXT**

The first reference to an individual should include the first name (or initials, if the first name is not used). Subsequent references should be by last name only. Do not refer to individuals as Mister, Doctor, Professor, etc.

#### **O. REFERENCE TO ORGANIZATIONS OR GOVERNMENTAL AGENCIES**

The first reference should give the name in full, followed by abbreviation in parentheses--subsequent references should give abbreviation only. For example: *first usage*, Social Science Research Council (SSRC); *second usage*, SSRC.

#### **P. CITATIONS AND THE BIBLIOGRAPHY**

The Department of Business & Economics requires that students use the *American Psychological Association* (APA) style of in-text citations to cite sources. For quotes, use author-date-page, e.g. . See the [Purdue OWL website](#) for details.<sup>1</sup>

#### **Q. PLAGIARISM**

See *The Compass* for a description of Allegheny's Honor Code and a definition of plagiarism.

#### **R. CITING ARTIFICIAL INTELLIGENCE (AI)**

At the beginning of the Senior Project, directly prior to the Abstract, the student should include a section about the use of AI in writing the senior project. If no AI tools were used, write that in this section. Otherwise, provide the reader a general sense of how you used AI, such as in formulating your research question, narrowing down your hypotheses, finding information about a particular concept, or editing your text.

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<sup>1</sup> [https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_style\\_introduction.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_style_introduction.html)

If you directly quote or paraphrase ChatGPT or another form of AI, you should separately cite every query that you make. ChatGPT allows you to do this to a unique URL. For instance, the following query was made to ChatGPT, "How many economists does it take to screw in a lightbulb?" ChatGPT provided the following answer: *"The classic joke response is: "None. If the light bulb needed changing, the market would have already done it." This plays on the idea that economists often rely on market forces to solve problems rather than direct intervention. Of course, it's just a joke and not meant to be taken seriously!"*

There is a button on the top right of my ChatGPT screen that allows me to "Share link to Chat." The link is this: <https://chat.openai.com/share/20710bfc-276e-4048-a08c-e28d2e9de859> If you put this paragraph into your SP, you should cite source this like you cite any other website.

[https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_formatting\\_and\\_style\\_guide/reference\\_list\\_electronic\\_sources.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_electronic_sources.html)

## **S. ABOUT THE AUTHOR**

Years from now, you and your family will enjoy seeing just who you are and where you planned to go at this stage of your life. Faculty will like it too, as we reflect back fondly on our years spent working together. Insert a picture of yourself along with a brief description of your career at Allegheny and your plans upon graduating.

## Appendix A: Business 620 & Economics 620 Evaluation Sheet

1. Is the statement of the underlying question or issue to be addressed presented clearly in the Abstract, Introduction, Body, and Conclusion of the paper?
2. Does the paper's Introduction provide a clear overview of the material covered and the approach taken in the work?
3. Is the theory and methodology presented in the paper appropriate given the underlying problem, and is it thoroughly explained?
4. Does the empirical evidence connect with and flow smoothly from the theory? Does it make use of appropriate statistical or other techniques in evaluating the research questions under consideration?
5. Are the paper's conclusions reasonably drawn and consistent with statements and findings in previous sections of the paper?
6. Is the overall quality of writing, including grammar, spelling, and word choice sound? Is the overall presentation of material clear and well organized?
7. Does the paper's content and bibliography provide adequate citation and review of previously published materials relevant to the study, including the incorporation of important findings by scholars who have examined issues pertaining to the underlying problem?
8. Is material that should be cited – paraphrase and quotation – properly cited? Is the citation technique used consistent with the APA citation method?
9. In the oral examination, was the opening statement clear? Was a solid understanding of the underlying problem, relevant theory, and empirical measurement apparent?
10. Was AI properly cited and used?
11. Were all submission deadlines followed?