

# **SENIOR PROJECT HANDBOOK**

**DEPARTMENT OF ECONOMICS**

**UNIVERSITY OF AKRON**

**May 2004**

## **I. INTRODUCTION**

This Handbook is a modified version of the Handbook for the Independent Project developed by the Department of Economics at The College of Wooster. The Independent Project is a feature of The College of Wooster education and has been in place there for many years and we have drawn on that experience. This Handbook provides you with information and advice relevant to University of Akron students engage in a Senior Project. You should read it thoroughly and understand its contents; if you have any questions about it, ask your undergraduate or senior project advisor.

Most of the material in this Handbook applies for BSLE as well as BA students, because a Senior Project is required for both degrees.. However, in the case of BSLE students, their Senior Project will be part of the final course required to be taken for the BSLE: Labor Market Analysis and Evaluation (3250: 434) rather than as an independent study with a faculty advisor. Topics for the Senior Project will come out of their study of Labor Economics, especially in Labor Market and Social Policy (3250: 430), rather than from any other field course. Other specific modifications may be made by the faculty member in charge of 3250:434. You should contact that faculty member for further advice.

## **II. ROLE OF THE SENIOR PROJECT**

The Senior Project provides you with a capstone experience in which you are able to demonstrate the knowledge and skills you have developed during the pursuit of your undergraduate Economics degree. It allows you to bring together all the skills you have developed through your courses (analytical, problem-solving and quantitative skills) and apply them to an issue, topic or question of your choice. It will form a major item in your Portfolio because it illustrates to us and to potential employers that you have mastered the specific Hansen proficiencies and that you can put them together to examine a real problem.

The Senior Project also allows you to demonstrate important, more general abilities. To carry out your project successfully requires that you develop an idea, organize the work to analyze it, complete that work, write about it and present it orally. The project requires effective organization of time, patience, hard work, ability to review and revise and yet meet deadlines. These are all abilities essential to success in the labor force, in graduate school, and most other endeavors.

Doing a Senior Project is a special experience, certainly a challenging and demanding one. Yet its successful completion will provide you with a real sense of satisfaction, accomplishment, and confidence that is very difficult to get in any other way and which you can proudly take with you as you complete your undergraduate studies.

## **III. PREPARATION FOR SENIOR PROJECT**

Before you start your Senior Project, think about what you have learned from your economics courses, theoretical, quantitative and applied. Re-reading your Portfolio should be helpful. Think about what are your strengths and weaknesses in economics and in carrying out tasks in general. Take account of those issues as you plan your project as they should help you determine for example where you may need help or

whether you need to work on meeting deadlines. As this is a major writing project, read the section on Writing your Senior Project and then read Diedre McCloskey, *Economical Writing* and Strunk and White's *Elements of Style* as we strongly recommend them.

There are several parts to the process of carrying out a Senior Project: proposal, draft, final paper and oral presentation. Each part needs to be completed on time to allow you to complete an acceptable project in the time available. The following timeline has been developed to assist you:

	Fall, Spring	Summer.	Suggested Grade Weights
Proposal	end of 2 <sup>nd</sup> week	end of 1 <sup>st</sup> week	20
Draft	end of 10 <sup>th</sup> week	end of 6 <sup>th</sup> week	30
Final paper	end of 14 <sup>th</sup> week	end of 9 <sup>th</sup> week	50
Oral presentation	15 <sup>th</sup> or 16 <sup>th</sup> week	end of 10 <sup>th</sup> week	10

The weights listed at the right are suggestive: the exact percentages are the responsibility of the instructor. They do show that meeting the intermediate deadlines is essential.

#### IV. CHOOSING A TOPIC FOR YOUR SENIOR PROJECT

Selecting an appropriate topic is one of the most important steps in the successful completion of the Senior Project. Start early. You should be thinking of possible topics as you do field courses and Applied Econometrics. An effective strategy is to develop a topic you have previously studied in a paper for another course, either a field course and/or the Applied Econometrics class. Remember that your project will often have a quantitative aspect and that is why a paper from Applied Econometrics may be a good starting point. It is, however, perfectly acceptable to have other analytical techniques, such as cost/benefit analysis (CBA) or game theory or develop a new perspective on the origin and/or evolution of an economic concept (Development of Economic Thought) or an aspect of "Economic History".

Try to phrase your topic as a Why? How? So What? question; this will help you focus. Brainstorm with your peers to help generate ideas . . . topics don't leap out of texts!

Share your initial idea with the Undergraduate Advisor, as soon as possible. If you are thinking about a topic while enrolled in Econometrics or a field course, share those ideas with the Undergraduate Advisor. You can then get advice on who you might ask to be your senior project advisor and find out well in advance whether they are available. Once you have identified an advisor, you should discuss your idea with that person, again well in advance of enrolling for the senior project; preferably during the previous term. That discussion should help you be as specific as possible on the objectives of the paper (i.e. give you focus) and provide feedback on its feasibility. You should then use the Econ Lit database and library reference sources to find out what work has been done on your topic and to develop an initial bibliography. By the end of the second week of your Project semester (first week during summer terms) you need to submit a proposal to your advisor.

## V. STRUCTURE OF PROPOSAL

The formal written proposal to be submitted to your advisor should be typed, double spaced, with headings for each of the following sections:

1. Motivation for the Topic Choice. Background information relating to the nature and importance of the topic.
2. Purpose of the Paper. A specific statement of what the paper will demonstrate including the major hypotheses to be examined.
3. Preliminary Organizational Outline. A tentative suggested sequence of major topics/sections in your paper, and subtopic headings under them. Be as specific as you can. (see Structure of Draft below for further help)
4. A Description of the Primary Methodology. Indicate what techniques will be used to verify or reject the hypotheses. If data are to be analyzed, what data are needed and are the data available?
5. Initial Bibliography. List the five or ten most important sources you expect to use.

The length of the proposal may vary, but it will probably be no less than five pages. The topic proposal must be submitted by the end of the second week (first week during summer terms) of the semester; it is suggested that it be 10% of your grade..

## VI. WRITING YOUR SENIOR PROJECT

Both your draft and final paper must meet the Guidelines in Appendix A. They are a modified version of the American Economic Review guidelines. It is important to use them in your draft, so you can correct any errors before you had in the final paper. That includes providing your list of references: don't leave that task to the very end!

Writing clearly and grammatically is a very important aspect of the Senior Project. Good work is useless if it cannot be communicated. Before any student begins his or her Senior Project they should read Deidre McCloskey *Economical Writing* and Strunk & White, *The Elements of Style*. These are both short books and will be made available to all of you. The following are some simple suggestions from the College of Wooster's handbook, based on their experience with errors made by students over the years.

1. Watch your sentence structure. Each sentence should have a subject and a predicate, and the tenses of the verbs should correspond. Use active verbs where possible.
2. Watch your paragraph structure as well. Each paragraph should have one main idea stated in a thesis sentence, and then developed with supporting sentences.

3. It may help you to outline your entire paper paragraph by paragraph so you can double-check the unity of each paragraph and section, and make sure the paper "flows."
4. Avoid unsupported assertions; e.g., if something is "generally accepted" as being true, say so; otherwise, state your source or fully develop your supporting arguments. Don't just say "it is."
5. Avoid overstatements. In particular work on developing the "fine art of qualification"--substituting "almost always" for "always," "seems to have been" for "was," etc. wherever there is any reasonable doubt.
6. Keep the goals of clarity, logic, and precision constantly in mind. Go over your draft and remove all unnecessary words. Get someone else to read your work and see if they understand it.
7. Where simple words can be used, do not use complex ones.
8. Avoid quotations that are not essential (see section on paraphrasing).
9. Do NOT plagiarize in your Senior Project and use paraphrasing appropriately. Plagiarism and paraphrasing are both sometimes confusing issues, which is why they are discussed in the College of Wooster guidelines and in the Office of the General Counsel guidelines at the University of Akron. *Plagiarism*, as defined by the Office of General Counsel is "the intentional or unintentional use of the words or ideas of another without acknowledging their source." <http://www.uakron.edu/ogc/PreventiveLaw/plagiarism.php>. Plagiarism in a senior project is sufficient to result in evaluation of a paper as unsatisfactory. While plagiarism is not usually intentional or deliberate, it can and does happen. Most often plagiarism occurs when you have followed a source (a chapter in a book or a journal article) too closely--you have simply paraphrased a few sentences or words of the author, or (worse) simply replicated the author's work without references or citations.

There are three things to keep in mind to help you avoid plagiarism: [1] when you are developing your theory and writing your literature review, make sure you understand what the author has written, and try as much as possible to put it into your own words. [2] Although you want to avoid excessive use of direct quotations, make sure that you accurately cite sources for ideas (this includes graphs, tables and equations) that are not your own. [3] If you are not sure whether you are following sources too closely, ask your advisor. It is a good idea, especially in the literature review section, to include a copy of the original article along with your first draft of your review.

*Paraphrasing* is essentially the rewording of another's thoughts and is acceptable only if properly footnoted. Undergraduate economics students are not in general expected to develop new theories so it is expected that you will be drawing on the thoughts and expressions of others. By reading a variety of sources, distilling the essential elements from those sources and by synthesizing the ideas you should normally have very little trouble avoiding paraphrasing. On the other hand, some sources are unique and occasionally so well written that the essence

of the ideas are not readily summarized, synthesized and restated in your own words; in such cases it is desirable to paraphrase or quote, but clearly indicate the true source of the ideas when you do so.

Additional information on how to avoid plagiarism can be found on the General Counsel's web pages at

<http://www.uakron.edu/ogc/PreventiveLaw/plagiarism.php>

## **VII. FROM THE PROPOSAL TO THE DRAFT**

After you have submitted your proposal, you will need to meet with your advisor as soon as possible, to revise it if necessary. You should then set up a detailed time table with your advisor of your plan of work and deadlines for each section: this time table should end with the 10<sup>th</sup> week draft (6<sup>th</sup> week in the summer). You should expect to have regular meetings and tasks to complete for or before those meetings. For example, you are likely to have to submit a theory and review of the literature section in a few weeks, followed by a formulated empirical methodology and detailed discussion of where you are getting your data and how you are going to use it. Keep your appointments and be candid with your advisor about your problems and your progress. It is probably more important to level with your advisor when things are going poorly than when all is well.

Set up a realistic set of deadlines and meet them. The Project will take significant time and there are always things that go wrong. Avoid the temptation to put it aside because of exams, other papers, etc. Remember there are penalties if your draft is not provided in time. The suggested weight on the draft is 30%.

## **VIII. STRUCTURE OF THE DRAFT OF THE SENIOR PROJECT**

The technical guidelines listed in Appendix A apply to both the draft and final paper. Review that Appendix carefully before you start.

The following brief comments should give you a more concrete sense of the organization of the typical Senior Project. The exact way you organize your paper will depend upon the topic involved but the following is a general norm you should attempt to follow.

### **(1) Abstract**

The abstract is a one-paragraph summary of the hypotheses tested in the paper or ideas and applications developed, the theoretical framework and methodology developed to test them and the major findings of the paper. Journal articles used in your project can provide models of appropriate abstracts. It is the last item you complete for the Project.

### **(2) Introduction to the Paper**

This opening section should provide: (a) motivation for the paper, offer background and explain why the topic is important; (b) an exact and complete statement of purpose which usually will consist of a concrete hypothesis or set of questions that the paper will test or answer; (c) a statement of the method the paper will use to test the hypothesis; and (d) an overview of the rest of the paper.

### (3) Theoretical Framework and Analysis

In this part you provide the conceptual framework and theoretical analysis. The following suggestions are made to help you in this section.

- i) Remember you are an economist, so think in those terms
- ii) Employ the models, theories, and concepts used in the field course from which you are developing your analysis.
- iii) Use the resources of journals and (non-text) books that deal with the theoretical aspects of your problem.
- iv) Use the theory to arrive at a precise and complete set of hypotheses.

### (4) Review of Empirical or Other Relevant Literature

In this section you present a review and critique of the scholarly literature relevant to your research. This section may be viewed as a presentation of the current state of knowledge regarding your topic: What unanswered questions remain in the literature which, perhaps, your study can answer? What can your study do better than what's already been done? In addition, the literature review can serve as a guide to how previous researchers have employed theories similar to yours and how they have made these theories operational for empirical testing.

Your literature review should not be a detailed, step-by-step account of what the author(s) did in their research. It should be interpretive and critical, it should specify the authors' purpose, methodology and conclusions, identify the contributions the work has made in this literature and discuss how the literature relates to your work. Remember it is a summary of relevant ideas, it is not exhaustive and it should not be too long.

### (5) Model Specification and Development of Results

Once you have chosen the appropriate methodology, you should make a detailed presentation of how your hypotheses will be tested or your application or idea developed.

If you are using regression analysis, this section should specify the empirical model(s), define dependent and independent variables, and describe the expected relationships based on your theory. You should describe the sampling procedure and data, and present and interpret the results of the empirical models.

If you are using a methodology other than regression analysis, this section should provide a detailed description of how you will be testing your hypotheses, or developing your idea or application. Your analysis and results (sometime quantitative and sometimes not) should follow.

Whichever method you use, you should then draw together the theoretical and/or empirical findings and point out their implications for both our understanding of economic phenomena and for policy recommendations. For regression models, specifically determine whether the hypotheses were supported or not. Note the probable degree of generality of the test results.

(6) Conclusions

The final section should recap the logical flow in the rest of the paper and drive home the principal findings. It is also often a good place to point out the weaknesses of the study and the consequent reservations. You may also wish to point out the need for specific future research.

(7) Bibliography

Make sure all the work you use in your project is listed in the Bibliography. All articles, journals and books must be cited using the format in the Guidelines in the Appendix. When citing web sites use the complete URL and please note the date that you accessed the site. When a site is used as a source of data, provide instructions to actually get to the data you are using. It important that a reader can find the original data so that they can duplicate results.

(8) Appendices

If you use empirical analysis, copies of the relevant computer output must be included in an appendix. Please note that tables derived from this computer output should be included in the section that presents your results. These tables should conform to the typing style used in the text of the chapter; do not consider the appendix to be a substitute for these tables.

## **IX. FROM DRAFT TO FINAL PAPER**

Revising a draft can make a significant difference to your final grade. That is why four weeks are assigned to it. You should expect to make major changes in both content and presentation, based on the feedback from your advisor. All comments by your advisor on your draft should be read carefully and those comments should be taken into account when making changes. While you need not make every change recommended by your advisor, you should be ready to defend your decision not to accept the recommendations.

You can expect your advisor to provide general and specific evaluative comments on the content of your draft but you should not expect detailed instructions for revising it: that is up to you. Look carefully for comments on omissions and do substantive work to deal with them.

If there are comments on grammar and clarity, then you must re-write. Remember that most writing goes through numerous re-workings for clarity and improved style. Your writing is supposed to reach professional standards.

Note that examination and return of a working draft does not imply that the paper is acceptable. The paper is never officially judged acceptable or unacceptable until it is in its final and complete form and has been read by both readers and the oral presentation has been made.

Make sure your final paper meets all the style criteria and is a professionally presented piece of work, submitted by the required deadline.

## **X. GUIDELINES FOR ORAL PRESENTATION**

After you submit your final paper, you will make a formal oral presentation of your topic to your advisor, the second reader and others. That presentation should be about 30 minutes. In your presentation you should provide:

- An introduction to your topic and why it is important to study
- The economic issues of the study
- Conclusions /implications of the research

You should use overheads or PowerPoint slides: don't overcrowd slides with too much data or words (eg. don't just copy complex graphs from your paper). Be clear and concise and loud enough for everyone to hear. When one is nervous there is a tendency to talk fast. This often inhibits the message. Pace yourself, don't be rushed. Be sure to practice the presentation so you know how long it will take. And, of course, dress professionally. After the presentation, there will be 15 minutes for questions from the audience.

## **XI. SENIOR PROJECT AS AN ARTIFACT FOR PORTFOLIO**

Your Senior Project is a required artifact for your Portfolio. It should be included in your electronic portfolio as a PDF file. You are required to add a reflective statement on your experience with the project.

In the reflective statement you should;

1. Identify how the project has helped you meet the Hansen proficiencies (see below for those involved).
2. Reflect on what you have learned from doing the project
3. State what you wish you had known before you started.

To repeat the comment in the Portfolio document, "Creating portfolios help(s) students learn where they had been, what they had done, and where they were going"(Spicuzza 1996)

## **XII. EVALUATION OF SENIOR PROJECT**

The Senior Project will be evaluated holistically by your senior project advisor and a second reader according to the guidelines in this section. The following aspects of the paper will be evaluated.

1. Thesis statement and hypothesis construction
2. Methodology
3. Economic knowledge (content)
4. Argumentation
5. Form & structure of paper
6. Oral presentation

How these aspects of the paper relate to the Hansen proficiencies and what constitutes an excellent performance (A), a good performance (B), a satisfactory performance (C) and an unsatisfactory performance (F) is set out in the material below.

**Project components**

**Hansen Proficiencies**

1. Access existing knowledge
2. Display command of existing knowledge
3. Interpret existing knowledge
4. Interpret and manipulate economic data
5. Apply existing knowledge
6. Create new knowledge

	Thesis Statement and Hypothesis construction	Methodology	Economic knowledge (content)	Argumentation	Form and structure of the paper	Oral Presentation
	1	2	3	4	5	6
	X	X	X		X	
	X	X	X	X	X	X
	X	X	X	X	X	X
		X	X			
		X	X	X		
			X			

**Levels of Performance**

1. Thesis Statement and Hypothesis Construction

Excellent	Research question and Hypotheses are focused, clear and complete; Key concepts and terms are identified
Good	Research question and Hypotheses are clear and focused; Concepts and terms related to the topic are identified
Satisfactory	Research question and Hypotheses are clear; Concepts and terms related to the topic are identified
No credit	Student does not effectively formulate a Research question and/or Hypotheses based on an information need.

2. Methodology

Excellent	The variables and measurements selected are appropriate, clear, and complete. They directly relate to the information need identified in the research question. The selections resulted from a search and evaluation of multiple relevant sources of information and clearly demonstrate an outstanding ability to effectively access, interpret, and apply existing economic knowledge and data.
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Good	The variables and measurements selected are clear and appropriate. They directly relate to the information need identified in the research question. The selections resulted from a search and evaluation of multiple relevant sources of information and demonstrate an good ability to access, interpret, and apply existing economic knowledge and data.
Satisfactory	The variables and measurements selected are appropriate. They relate to the information need identified in the research question. The selections resulted from a search and evaluation of relevant sources of information and demonstrate an ability to access, interpret, and apply existing economic knowledge and data.
No credit	Student does not effectively identify appropriate variables or measures. The search strategy is unfocused, the information gathered lacks relevance, quality, and completeness.

### 3. Economic knowledge (content)

Excellent	The level of economic knowledge is advanced by this project, it provides new insight or understanding of the question investigated. The student is aware of the breadth and depth of the research; is able to critically evaluate the research; synthesize and integrate information; draw appropriate and accurate conclusions; and extend the understanding to new situations. Professional vocabulary is used correctly and consistently throughout the paper. The student is able to integrate knowledge of economic theories, data and informed judgment to effectively address the research question.
Good	The student is aware of the breadth and depth of the research; is able to evaluate the research; synthesize and integrate information; and draw appropriate and accurate conclusions. Professional vocabulary is used correctly and consistently throughout the paper. The student is able to integrate knowledge of economic theories, data and informed judgment to address the research question.
Satisfactory	The student is able to evaluate the research; synthesize or integrate information; and draw appropriate or accurate conclusions. Professional vocabulary is used correctly and consistently throughout the paper. The student is unable to effectively integrate knowledge of economic theories, data and informed judgment to address the research question.
No credit	Student does not effectively demonstrate adequate economic knowledge.

### 4. Argumentation

Excellent	Argument flows logically. Theory and data are used to support the argument. The data, theories and conclusions are clearly linked. Arguments are persuasive. Alternative policies, arguments, conclusions and generalizations are noted where they exist. Data effectively support the argument.
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Good	Argument flows logically. Theory and data are used to support the argument. The data, theories and conclusions are linked. Argument sometimes lack focus or are vague. Alternative policies, arguments, conclusions may not be noted where they exist. Data support the argument.
Satisfactory	Argument lacks logical flow. Theory and data are seldom used to support the argument or the data, theories and conclusions are poorly linked. Argument often lacks focus or is vague.
No credit	The student fails to provide an adequate argument. Conclusions are not linked to theory and data or there are substantial errors in the argument.

#### 5. Form and structure of the paper

Excellent	Paper is well structured; contains introduction, body, and conclusion; the presentation was articulate, inventive, polished
Good	Paper is well structured; contains introduction, body, and conclusion; the presentation was articulate, well organize
Satisfactory	Paper is structured; contains introduction, body, and conclusion; the presentation was understandable and organize
No credit	The paper lacks structure, focus and/or the presentation was unprofessional

#### 6. Oral presentation

Excellent	Content well organized, presentation well practiced, voice clear and confident, high quality relevant aids that were accurate, answered questions easily, completed within time frame, (not too short or too long) professional demeanor.
Good	Content organized, presentation practiced, voice clear, relevant and accurate aids, answered most questions, completed within time frame (not too long or too short), professional demeanor
Satisfactory	Content organized, presentation planned if not practiced, mostly not confused, voice reasonably clear, aids relevant and reasonably accurate, answered some questions, did not go over or under time period by much, professional demeanor
No credit	Content disorganized, presentation not practiced and/or confused, voice not clear, aids nonrelevant or nonexistent, unable to answer most questions, not able to relate to timeframe, unprofessional demeanor