College of Business and Public Administration
MS Applied Economics
Thesis and Independent Study Guidebook*

*Special acknowledgement to previous CoBPA program directors Robert Dosch, Jason Jensen, Cullen Goenner, and Dave Yearwood of the Master of Accountancy (MAcc), Master of Public Administration (MPA), Master of Science in Applied Economics (MSAE), and Master of Science in Industrial Technology (MSIT) programs for working together to create this document. This is a modified version of their original.

2016
# Table of Contents

Independent Study or Thesis .................................................................................................................. 3

Getting Started ..................................................................................................................................... 3-5

Advisor Matching ................................................................................................................................... 5

SGS Topic Proposal ............................................................................................................................. 5-6

Economics Department Three-Signature Proposal ............................................................................ 6-7

Key SGS Dates for Thesis Completion ............................................................................................... 8

Key SGS Dates for Independent Study Completion ............................................................................ 9

Faculty/Student Expectations .............................................................................................................. 10

Writing your Paper ............................................................................................................................. 11-13

Oral Defense ......................................................................................................................................... 14

Assessment Goals .............................................................................................................................. 15

Sample Rubrics for Assessment ......................................................................................................... 16-19
**Thesis or Independent Study?**

A student’s thesis/independent study represents an extremely important part of a student’s experience in the University of North Dakota’s Masters of Science in Applied Economics (MSAE) program, from the standpoint of both professional and academic preparation. Successful completion of applied research requires the student to demonstrate a mastery of a wide range of skills, which include:

1. The ability to identify a research topic of both theoretical and practical importance,
2. Develop an empirically appropriate strategy for examining the issue,
3. Collect relevant data to conduct this examination,
4. Draw conclusions from this information, which provide guidance to current or future administrative efforts,
5. Place their work in the context of previous research in the field, and
6. Communicate these findings clearly and effectively to a variety of audiences both orally and in writing.

In addition to the professional and scholarly contribution of the research itself, these aforementioned abilities cultivated in the completion of the project constitute a set of skills which will be of ongoing use during students’ professional careers.

The difference between the research paper produced in an independent study or thesis may be very subtle. Depending on the degree program you are in, there may not be much of a difference at all. A thesis is often thought of as adding an “independent contribution,” meaning that it is potentially publishable. Generally the expectations of a thesis are slightly higher as it counts for four academic credits, rather than two in an independent study.

A thesis is overseen by three committee members, whereas an independent study is overseen by one. In either case you are encouraged to interact with other students and faculty when working on your research. A thesis also receives more scrutiny from the Graduate School, particularly related to formatting and deadlines. Economics requires students who complete either an independent study or thesis to propose and defend a research proposal, write a research paper, and provide an oral defense of their research in order to graduate.

**Getting Started**

Early in your graduate studies you should begin to think about topics that interest you. At this early stage you should begin to review what others have done to examine the topic, i.e. their arguments, data sources, and analytical approaches. As you progress through your studies you will learn more advanced quantitative skills that will assist you in your analysis. You may wish to begin with some simple regressions to determine the appropriateness of datasets you are considering. To assist you in this process you will formally develop the tools in Econ 596 – Economic Research Seminar to develop a coherent research plan. This course is intended to be taken by MSAE students prior to enrolling for thesis/independent study. In this course students
learn skills to develop, compose, and present an Independent Study or Thesis on a topic of their choosing, in consultation with the course instructors. A primary objective of the course is to familiarize students with the craft of oral and written communication as it relates to economic research. At the conclusion of the course, students will have completed and formally presented a paper proposal, including a provisional introduction, literature review, and data and/or program summary, and will have submitted a plan and timeline for data collection and analysis necessary to complete their thesis/independent study.

Prior to enrolling in Economics Research Seminar you are free to begin thinking about answers to the follow questions, concerning your topic of interest.

Begin thinking about your research by asking yourself the following questions:

- What is your main research question?
- What do you wish to pursue?
- Why do you wish to pursue this issue?
- Why is it important to study this topic?

Next fine tune your research question by considering the following:

- What do you wish to understand about the topic? Why? Where will the information come from?
- Can the topic be studied successfully?
- What should be done to better understand the problem?
- What has been done by others who examined the topic of interest to you? Is there a vast literature or is it limited?
- What are the contributing or mitigating factors?
- How do you propose tackling this problem?
- What are the minor questions which flow out of the major question that you wish to explore? Are there sub-questions that flow from your primary question? Should you address those also?
- Is your focus too broad? Too narrow?
- What is the context and background?
- Who else, beside yourself, believes that there is a problem that warrants investigating?
- Why does this—the subject or topic—matter? In other words, why should this study be conducted?

Planning your Methodology

- What are the potential methodologies available to address your research question? How will it be conducted?
- How do you plan to address your research question and why?
Will you gather primary data? Survey, experiment, field research, qualitative interviewing, etc.?
Will you need IRB approval for the use of human subjects?
Will you use secondary data? Existing data?
Will you evaluate an existing program, organization, etc.?

Advisor Matching

In economics, thesis/independent study advisors are paired with MSAE students after completion of Econ 596 – Economics Research Seminar. It is important that you have a well thought out idea, which you can clearly articulate in order for your advisor to provide you meaningful feedback.

Advisors often are able to foresee issues you may not, so it is important that advisor/student are on the same page for the direction of the research. An advisor is only changed on rare occasions and only with approval of the Graduate Program Director.

For theses, your committee is made up of an advisor and two additional UND graduate faculty members, at least one of whom must be from the Department. Your advisor will assist you in the selection of these committee members. The role of the committee members is to assure the quality of your completed work, it is the role of your advisor to primarily oversee your work and provide feedback.

Your advisor/committee will need to review and approve your research proposal, therefore it is important that you do not attempt to get too far along on your research without their consent. The graduate school requires a short proposal (SGS Topic proposal) and the department requires a longer proposal and a recorded presentation (3 signature report).

SGS Topic proposal.

The key to executing and completing a research project is a clearly laid out idea and an understanding of how you will explore this idea. Toward this end you are required to provide a topic proposal to the graduate school. The graduate school requires a non-technical proposal (no more than one page in length). In narrative form you provide.

1) A title (it can be changed at a later date)
2) A brief description of the nature of the problem or study
3) The procedure or methodology to be followed
4) The anticipated results

The proposal required by the graduate school is generally too short and vague to be of much use for the department to evaluate the potential merits of your research. Therefore the
department of economics requires a more substantial proposal to evaluate your research direction (i.e. the 3 signature proposal) prior to you submitting a proposal to the graduate school.

Three Signature Proposal Instructions

A Three-Signature Proposal for the College of Business and Public Administration is a plan for your thesis or independent study. The objective of this proposal is to provide an outline of the purpose and goals behind your research for review by your Thesis Committee the Program’s Graduate Assessment Committee in the case of Independent Studies. The proposal you submit should be detailed enough to convey a clear picture of the research question(s) you seek to address, the importance to the field of study, a brief discussion of the relevant literature, the methods you intend to use, and a description of the proposed solutions, i.e. how you will analyze the problem with a theoretical and or empirical model. By theoretical model, we are referring to a mathematical model and not a story or argument, which in some fields is viewed as “theory”. Given the nature of our program, nearly every student will pursue empirical work.

There is no page limit – the clearer you are in your proposal the better advice you will receive and the less likely you will be met with surprises. There are two components to this proposal. You will record a presentation explaining your research idea using Tegrity and will provide a written proposal for review.

The department has put together a template, which students are expected to follow in preparing their 3 signature proposal. This template is discussed in the economics research seminar course, and the work you complete in the course should serve as a strong basis for your three-signature proposal. It should be noted that it will be the role of your advisor and not the faculty who taught Econ 596 who will approve and sign off on your proposal.

If your research uses human subjects, e.g. you are conducting a survey of UND students, you may need IRB approval. This can be a time consuming process, therefore you should speak with the IRB committee to determine the appropriate steps to take to receive their approval.

Proposal Review Process

The student will prepare the proposal under the guidance of their advisor, and the thesis/assessment committee will review. When the relevant committee informs the Program Director that the proposal is acceptable and in line with program expectations the student may complete the topic proposal for the graduate school.

At this point, the Three-Signature requirement is complete and the student may submit the Graduate School’s Topic Proposal form with an abbreviated (one page in length) proposal. Students are required to submit this form to the Graduate School prior to the semester they intend to graduate.
Both proposals need to be completed and approved before a student may become a candidate for a degree. Therefore you need to plan ahead as it will take your advisor and the committee time to review your proposal and you may be required to make modifications. You should allow 1-2 weeks for this review to be completed by the department’s advisory committee.

Timetable

There are a number of formal timelines (due dates) established by the graduate school for you to complete and a number of informal timelines that you will establish with your advisor. You will need to pay close attention to these dates as failure to follow directions will delay / prevent your graduation.
Timeline and Key Dates for Thesis Completion

The graduate school sets six key dates that thesis students will need to pay attention to. These dates are posted on the School of Graduate Studies webpage. At each date there are a number of forms which are due. For each form you will need to complete the “student” portion and then submit electronically to your research advisor. This should be done at least a week prior to the due date to allow your advisor to review and obtain any necessary signatures. Do not surprise your adviser with the forms. **Forms submitted to your advisor on the day they are due to the graduate school will not be accepted.** You should also know these are the dates they are due to the graduate school with departmental APPROVAL, therefore you will need to communicate/provide materials to your advisor well in advance to ensure they are approved. You will need to work with your advisor to determine these dates.

The relevant graduate school forms are available at the School of Graduate Studies webpage.

**Key Dates set by the Graduate School for Thesis Completion**

**Date 1:** Advance to Candidacy (Complete the semester prior to graduation)

1. Committee (Thesis) advisor (Independent study) assignment form
2. Program of study form
3. Graduate school topic proposal form
4. MSAE 3 signature topic proposal form

**Date 2:** Graduation Application

1. Apply to graduate online.
   Note if you do not meet the timelines of the graduate school or of your advisor you will not graduate.

**Date 3:** Pre-Defense progress check

1. Preliminary approval form
2. Schedule defense date/time form
3. Submit draft to graduate school for a format check.

**Date 4:** Oral Defense

1. Provide signature page for thesis.
2. Final report on candidate form

**Date 5:** Final report submitted by faculty along with grade

**Date 6:** Submit PDF

1. Student submits electronic version of thesis.
Timeline and Key Dates for Independent Study Completion

The graduate school sets three key dates that independent study students will need to pay attention to. These dates are posted on the School of Graduate Studies webpage. At each date there are a number of forms which are due. For each form you will need to complete the “student” portion and then submit electronically to your research advisor. This should be done at least a week prior to the due date to allow your advisor to review and obtain any necessary signatures. Do not surprise your adviser with the forms. **Forms submitted to your advisor on the day they are due to the graduate school will not be accepted.** You should also know these are the dates they are due to the graduate school with department APPROVAL, therefore you will need to communicate/provide materials to your advisor well in advance to ensure they are approved. You will need to work with your advisor to determine these dates.

The relevant graduate school forms are available School of Graduate Studies webpage.

**Key Dates set by the Graduate School for Independent Study Completion**

**Date 1: Advance to Candidacy (Complete the semester prior to graduation)**

1. Committee (Thesis) advisor (Independent study) assignment form
2. Program of study form
3. Graduate school topic proposal form
4. MSAE 3 signature topic proposal form

**Date 2: Graduation Application**

1. Apply to graduate online.
   Note if you do not meet the timelines of the graduate school or of your advisor you will not graduate.

**Date 3: Final report submitted**

1. Faculty submit final report and grade for thesis.
Faculty/Student expectations on Research Interactions

Faculty expectations –

Students are expected to be able to work independently on their research and follow directions laid out by their advisor. It is important that students listen to their advisor, as failing to follow their directions can delay completion and even may result in a student’s dismissal from the program. You will need to establish deadlines with your advisor as to when certain materials will be submitted for their review. Review may take up to 1-2 weeks so you will need to plan ahead, as faculty approval is not guaranteed, and the deadlines of the graduate school are strictly enforced. Students who change topics, or deviate from the plans in their approved proposal will need to resubmit their topic proposal for approval. This is an important process as it helps to keep students on a track that maximizes their potential for success - but it does not guarantee it.

Given preliminary approval is around the 13th week of class (fall, spring semester), you will need to have at least a rough draft to your adviser by the 11th week (sooner depending on your advisor’s wishes). The point is it can be a challenge to finish a thesis/independent study in the semester you begin work. If you apply to graduate and do not have an acceptable draft approved prior to the deadline, you will be removed from the list of graduates and will need to continue your work. This is not uncommon as research is full of surprises - both good and bad. Faculty will likely require you to provide several different components of your work at different points in time, so work out a schedule as to when you will complete various components. It is important that the materials you provide your advisor are “proof” ready, i.e. they read properly and there are not obvious mistakes. If you fail to make progress on your research or fail to respond to your advisor you will be dismissed from the program.

Student expectations –

Writing an academic research paper is a challenge. It is not the job of your advisor to proofread your paper, assemble your data, or identify the appropriate literature – though they may assist in this process. It is a student’s responsibility to complete the research on your own. Your advisor is not a co-author on this paper – they are a mentor who will assist by providing critical analysis of your thoughts, conclusions, and expressions of your argument. Advisors may be a co-author on subsequent work. The role of an advisor is to help students foresee problems, offer insight to solutions, and provide clarity in the process and expectations of writing a research paper. Faculty are expected to provide direction and feedback. This is often done via email, phone calls, skype / adobe connect meetings scheduled throughout the period of your research. Any student issues with an advisor should be discussed with them first and then brought to the attention of the graduate director and/or department chair if not resolved.
Writing your research paper

The process of executing your research project follows a basic format – your advisors may have a slight variation in the points noted below so discuss with them if you have any questions.

General Overview

- The basic format of the study is the format used for virtually all scientific writing:
  - Abstract (not part of the actual paper but a brief overview / summary)
  - Introduction, including literature, and any hypotheses (if relevant)
  - Methods
  - Results
  - Discussion and Conclusions

Beyond the basic format, you should use a style manual (e.g., APA preferred, or MLA, Chicago, etc. if instructed by your advisor or Thesis chair) appropriate to your discipline and use it consistently throughout your study.

- Since both the thesis and independent study are capstones of an advanced graduate degree, all papers will utilize peer reviewed academic literature. It is acceptable to also use other kinds of literature (e.g., popular press, trade magazines, internet) as well, but the majority of your literature should be academic (if you do not know the difference you need to discuss this with your chair / advisor before starting your project).

- The biggest downfall of graduate student writing is the tendency to want to report what everyone else has done, one study after another, with no synthesis, critical analysis, or application of literature to what YOU are doing (your research question). Your paper is not just an annotated bibliography. Synthesize literature to support and frame your study.

- Organize your paper in a way that makes it clear at all times why you are discussing or referring to something, how it fits into your larger paper, where you have been, where you are going next, what your objective/purpose is, etc. Writing and organization problems can severely undermine excellent content, analysis, and data.

More Specific Detail by Section

Section 0-Abstract:

The summary should generally be two hundred and fifty words or less. An abstract is a concise single paragraph summary of completed work or work in progress. In a minute or less a reader can learn the rationale behind the study, general approach to the problem, pertinent results, and important conclusions or new questions.

Writing an abstract

- Write your summary after the rest of the paper is completed. After all, how can you summarize something that is not yet written? Economy of words is important throughout
any paper, but especially in an abstract. However, use complete sentences and do not sacrifice readability for brevity.

- Summarize the study, including the following elements in any abstract. Try to keep the first two items to no more than one sentence each.
  - Purpose of the study - hypothesis, overall question, objective
  - Brief description of the methodology
  - Results - if the results are quantitative in nature, it is acceptable to report important quantitative findings; brief results of the important statistical analysis should be reported
  - Important conclusions or questions that follow from analysis

Style:

- Single paragraph, and concise
- As a summary of work done, it is always written in past tense
- An abstract should stand on its own, and not refer to any other part of the paper such as a figure or table
- Focus on summarizing results - limit background information to a sentence or two, if absolutely necessary
- What you report in an abstract must be consistent with what you reported in the paper

Section I—Introduction and Literature:

- An introduction to the topic that provides the reader with some insight into what you wish to address and why.
- What is your research question? Major question and minor questions.
- Market your topic and tell the reader why it is interesting and necessary. Justify to your reader that what you wish to examine is indeed a problem. What is the need for the study?
- Brief background information about the topic to set the stage for what it is, who might be involved, what the issues are, what some of the big and small picture items related to the topic are or might be.
- What is the problem that is, or might be, associated with the topic?
- Purpose of your study—what and why you wish to pursue this topic.
- Limitations and/or delimitations.
- Definition of terms.

Review of the Literature:

- An examination of the literature to determine what is known and not known about the topic.
- A discussion about the literature, NOT a summary of what you found, but some substantive discussion about the body of knowledge that exists about the topic—
requires some dissection and re-assembling or re-constructing of the information that you found. This step is important and requires analysis, synthesis, evaluation, etc.

- Identify the major theories, ideas, constructs that are related to the topic. This is often referred to as establishing a theoretical framework. It is the basis upon which you are going to build or situate your work.
- Based on your review, what problems appear settled (much evidence for) in the literature and which do not (holes in the literature)?
- Summarize what you found in a conclusion section
- This section MAY culminate in the presentation of hypotheses or propositions. If so, they should flow logically from the literature and theory presented. You need to bring the reader to the predictions for your study, instead of presenting them abruptly.

Section II — Methods:

- Start off by reminding the reader about the purpose of the study and the questions for the study.
- Tell the reader what you are going to do and why.
- State any assumptions you make and their rationale.
- Be clear and precise as you lay out the approach that you will take in conducting the study.
- Provide a step-by-step or detailed information piece that others can follow if they wish to replicate your study.
- If you are doing an empirical analysis, include specific detail related to instruments, data sources, variables, etc.

Section III — Results:

- Report your findings.
- No discussions, just the facts or the results of your analysis and also the tool you used to conduct the analysis of the data.
- Refer to any tables or charts in the text.

Section IV — Discussion (Summary, Conclusions, Recommendations)

- Repeat some of the same information found in Section I—a general overview of the topic (very, very, brief) purpose of the study; major question and minor questions as they relate to the topic under examination.
- Discussion about what you found. Be careful not to repeat information recorded in the results section. Only include what is relevant to your discussion and analysis, particularly any hypotheses you may have had. Focus on your main results or primary findings.
- Address the questions posed—use the data from your analysis to answer the questions for your study.
• Draw some conclusions about what you found. It is acceptable to do some speculation in this section related to your findings, but it should be objective and should flow from the literature and your results.
• Shortcomings.
• Provide a brief concluding or summarizing section.
• Provide some recommendations for further study.

**Appendix and References (or Bibliography)**

• Be sure to include all necessary approval letters, surveys, instruments, and other relevant information in the appendix.
• Review your reference list to ensure that it is complete (do not include works not cited in the text) and that it is consistent with the latest style manual.

**Oral Defense:**

Both the thesis and independent study require a presentation for the MSAE degree. In either case you will prepare a presentation of approximately ½ hour to 45 minutes in duration. Your presentation needs to convey several basic points.

1. What is your research question and the hypothesis you tend to tend?
2. How does it relate to what others have done/found?
3. What is the data source for your analysis / theoretical model used in the analysis?
4. For empirical work, what is the econometric model you use and why is it appropriate?
5. What are your findings – statistical and economic magnitude and what do they mean?
6. How robust are your results?

In the case of the thesis you are required to respond to questions from your thesis committee, and may need to make adjustments to your thesis, prior to submitting the final draft to be published.

Due to an independent study being fewer credits, you are not required to respond to questions as you are able to record your presentation, which may be used by your advisor to assign your grade.

Both your paper and presentation will be used by the department to assess whether the Graduate Program is meeting its goals and objectives. The assessment focuses on the student’s ability to communicate effectively in written and oral fashions. The guidelines for the assessment are outlined below.
MSAE Program Assessment

Mission Statement

The goal of the MS in Applied Economics program at the University of North Dakota is to provide students the quantitative and applied skills required to succeed as an economist involved in economic development, strategic planning, consulting, and applied research in a broad array of institutional settings. These goals are achieved through a program where coursework, experiential learning, and independent research develop a strong foundation to understand and apply economic theory, collect and analyze data, and communicate technical material effectively to others.

Direct assessment of whether a graduate student in the MS-Applied Economics (MSAE) program has met the goals of the program is done by the student’s Faculty Advisory Committee. Students, upon completion of research fulfilling the requirements of their independent study or thesis, are required to share their research paper and present their research to their Faculty Advisory Committee. This committee assesses the skill level students have reached at the completion of their program of study in a number of areas, relevant to the learning goals and objectives of our program. The purpose of which is to identify whether any changes need to be made in order to achieve outlined goals.

Each member of the student’s Faculty Advisory Committee evaluates each of the five objectives under our three learning goals, using a rubric developed in coordination with other graduate programs within the College of Business and Public Administration. This rubric appears at the end of this report.

Student Learning Goals and Objectives

Learning Goal: Students acquire quantitative and applied research skills.

Objective 1: Students develop knowledge of economic and statistical theory

Objective 2: Students learn to use applicable techniques to quantitatively analyze data.

Learning Goal: Students will be effective communicators

Objective 3: Students develop oral presentation skills

Objective 4: Students develop written communication skills

Learning Goal: Students are able to conduct independent research

Objective 5: Students develop an ability to perform, use, and understand economic research.
Questions used to directly assess program objectives.

Objective 1. Students develop knowledge of economic and statistical theory

The references cited in the research paper are appropriate for the research question:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>References are appropriate to the main ideas developed and to the central theme of the paper. There is evidence to suggest that the writer support claims made with diverse attributions whenever necessary.</td>
<td>References to support claims in the student’s work are generally present. There may be some omission of attribution but they are not as diverse.</td>
<td>Although occasional references are provided, the writer frequently makes unsubstantiated statements thus leaving the reader unsure about the source of the ideas in the paper.</td>
<td>Some attempt has been made to reference the works of others but a number of instances exists where some works are either not cited or no attempt is made to support claims made which leave the reader unsure about the source of ideas in the paper.</td>
<td>Paper does not make use of scholarly references.</td>
</tr>
</tbody>
</table>

Objective 2: Students learn to use applicable techniques to quantitatively analyze data

The statistical methods used were appropriate for the research question:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical methods are appropriate to support the data analysis in the paper. Student shows a mastery of the method’s application.</td>
<td>Statistical methods are appropriate to support the data analysis in the paper. Student shows a strong understanding of the method’s application.</td>
<td>Statistical methods are appropriate to support the data analysis in the paper. Student shows an acceptable understanding of the method’s application.</td>
<td>Statistical methods are mostly appropriate to support the data analysis in the paper. Student shows little understanding of the method’s application.</td>
<td>Statistical methods are inappropriate to support the data analysis in the paper. Student shows no understanding of the method’s application.</td>
</tr>
</tbody>
</table>
Conclusions from the research were established by the quantitative analysis:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analysis provides strong support for conclusions drawn by the research.</td>
<td>Data analysis provides support for conclusions drawn by the research.</td>
<td>Data analysis provides partial support for conclusions drawn by the research.</td>
<td>Data analysis provides weak support for conclusions drawn by the research.</td>
<td>Data analysis provides no support for conclusions drawn by the research.</td>
</tr>
</tbody>
</table>

Objective 3: Students develop oral presentation skills

The use of communication aids was appropriate for the research presentation

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication aids enhanced the presentation and displayed original ideas.</td>
<td>Communication aids enhanced the presentation. Many aids outlined important concepts. Some additional aids were used beyond PowerPoint. Aids were free of grammatical errors; format was consistent throughout the presentation.</td>
<td>Communication aids were used, but did not enhance the presentation. Some aids outlined important concepts. No additional aids were used beyond PowerPoint. Aids were free of grammatical errors; some areas were not formatted consistently.</td>
<td>Communication aids were rarely used and did not enhance the presentation. Aids had too much or too little information. No additional aids were used beyond PowerPoint. Aids had some grammatical errors; many areas were not formatted consistently.</td>
<td>No communication aids used or they were so poorly prepared that they detracted from the presentation. Aids had far too much or far too little information. Numerous grammatical errors; formatting was extremely inconsistent.</td>
</tr>
</tbody>
</table>

The organization of the research presentation:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation was extremely clear, logical, and well-organized. The listener could easily follow a clear line of reasoning. Student effectively used the time allotted for the presentation.</td>
<td>Presentation was clear, logical, and organized. The listener could follow a line of reasoning. Content was well conveyed in the time allotted.</td>
<td>Presentation was generally clear and organized. A few minor points seem to be confusing. Content was fairly well conveyed in the time allotted.</td>
<td>Presentation lacked organization and clarity. Information and arguments were not presented clearly. Presentation was rather confusing to follow. Content was poorly conveyed in the time allotted.</td>
<td>Presentation was choppy and disjointed. The information presented was confusing. Listeners had to put great effort into understanding the presentation. Student did an extremely poor job of conveying the content in the time allotted.</td>
</tr>
</tbody>
</table>
The speaking skills exhibited during the research presentation:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenter was confident and poised. Sentences were always complete, grammatical, and flowed together easily. Clear enunciations and proper volume. Very few disfluencies (i.e. “ahs” or “uhms”) used. Clearly evident that the presenter practiced prior to the presentation.</td>
<td>Presenter was relatively comfortable and confident. Sentences were frequently complete, grammatical, and flowed together easily. Relatively clear enunciations and proper volume. Few disfluencies (i.e. “ahs” or “uhms”) used. Evident that the presenter practiced prior to the presentation.</td>
<td>Presenter was somewhat uncomfortable and not as polished. Some sentences were somewhat incomplete and did not flow together well. Somewhat clear enunciations and volume level was okay. Some disfluencies (i.e. “ahs” or “uhms”) used. Evident that the presenter practiced some prior to the presentation.</td>
<td>Presenter was uncomfortable and tense. Many sentences were difficult to understand and follow. Difficult to hear at times due to lack of enunciation. Very dependent on note cards. Many disfluencies (i.e. “ahs” or “uhms”) used. Evident that the presenter practiced very little prior to the presentation.</td>
<td>Presenter was visibly extremely uncomfortable and tense. Sentences were incomplete, halted, and vocabulary was limited and inappropriate. Information was read off note cards. Too many disfluencies (i.e. “ahs” or “uhms”) distracted from the presentation. Clearly evident that the presenter did not practice prior to the presentation.</td>
</tr>
</tbody>
</table>

Objective 5: Students are able to conduct independent research

The student’s responsiveness to audience during the research presentation

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student held the complete attention and interest of the audience throughout the presentation. Highly responsive to the audience’s questions and comments. Great eye contact was used with the entire audience.</td>
<td>Student held the attention and interest of the audience during most of the presentation. Responsive to the audience’s questions and comments. Good eye contact was used with the entire audience.</td>
<td>Student somewhat held the attention and interest of the audience during the presentation. Somewhat responsive to the audience’s questions and comments. Some eye contact was used with the entire audience.</td>
<td>Student hardly held the attention and interest of the audience. Student had inadequate answers to the audience’s questions and comments. Rarely made eye contact with the entire audience.</td>
<td>Student did not hold the attention or interest of the audience at all. Student did not appropriately respond to the questions and comments of the audience. No eye contact was made with the audience.</td>
</tr>
<tr>
<td>Level 5</td>
<td>Level 4</td>
<td>Level 3</td>
<td>Level 2</td>
<td>Level 1</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The writer lays the ground work or framework upon which to build his/her argument. The content moves beyond the basics and encourages higher levels of thinking—analysis &amp; synthesis. There is ample and clear discussion about the significance of the work undertaken and the topic is treated in a fair and balanced manner, with supporting AND opposing viewpoints, that clearly and effectively supports the central purpose or thesis. The reader is challenged and gains insights.</td>
<td>A framework for the paper is evident and helps to form a basis upon which to build a discussion for the paper. Information provided firmly supports the thesis of the paper and there is some discussion about the significance of the work. The topic is treated fairly and is generally balanced. Information is provided to support opposing viewpoints. Reader gains some insights.</td>
<td>There is some evidence to suggest that the writer has made a good attempt to establish a foundation upon which to frame discussions for the paper. The paper is generally well developed and there is some discussion about the pros and cons, though not to the extent that would indicate a lack of bias. Opposing viewpoints are not well developed. The reader is able to learn something about the topic/issue.</td>
<td>The paper lacks a coherent theoretical framework and does not demonstrate that the writer has any idea about how to engage the reader. There is some evidence to indicate that the writer understands what it means to critically examine a topic or issue; however, the level of critique and analysis is below what is required for this assignment. There is some discussion about the pros and cons of the issue(s) examined but and this is not adequately developed. In the final analysis, what is presented in the paper appears to be biased.</td>
<td>The paper uses inappropriate techniques and demonstrates an utter lack of understanding for key theories behind the issue examined. In general the conclusions drawn do not make sense and are not based on evidence supported by the research.</td>
</tr>
</tbody>
</table>