William Paterson University Honors College Overview of the Honors Thesis

This is an overview of the Honors thesis and its requirements. Additional information including other requirements and specific evaluation procedures are available from your Honors Track Director.

Benefits of the Thesis Process

Deciding to undertake the thesis process is a commitment to a significant amount of work, but there are important benefits to consider:

- Being one of a select group of students graduating from William Paterson University. Only around 7% of graduating seniors each year complete the Honors College, receiving the Honors College designation on their diploma and transcript.
- The thesis topic is a vehicle for self-expression that may be the basis for an offer of admission to a graduate program or for a career opportunity.
- An opportunity to explore, research, and create something that particularly interests you and to reflect on and synthesize four years of intellectual and personal growth.
- Developing professional relationships with advisors and mentors.
- Demonstrating academic motivation and intellectual specialization through a well-written document to highlight to graduate programs or employers.
- Developing a keen sense of accomplishment on having completed a major, independent research, or creative project as well as confidence in your public presentation and speaking abilities

Sources for this handbook

The writing of an Honors thesis is something that few undergraduates do, but there are national standards regarding expectations. The handbook you are currently reading was inspired by *The Honors Thesis: A Handbook for Directors, Deans, and Faculty Advisors*, by Mark Anderson, Karen Lyons and Norman Weiner (Lincoln, Nebraska: National Collegiate Honors College, 2014). Parts of this overview are borrowed in whole from the Honors Thesis Handbooks from the following:

The University of Maine Honors Thesis Handbook https://honors.umaine.edu/current-students/academics/thesis/thesis-handbook/

The University of Texas at San Antonio https://honors.utsa.edu/resources/pdf/honors-thesis-handbook.pdf

What is an Honors Thesis Project?

Broadly, the Honors thesis is an independent undertaking involving research or creative work that represents the culmination of your academic and personal endeavors as an undergraduate.

This project includes four key components:

1. The completion of a series of courses in Honors Track
2. Experiential learning through development of a two-semester project
3. Timely submission of all required pre-presentation materials to Honors including a completed and signed application to present, a three-page project description, a photo to be used in the program, and an abstract.
4. A university-wide presentation of your thesis during Honors Research Week
5. A written Honors thesis--a body of work, which demonstrates a deep understanding of a

research or creative topic

Completion of Track Courses: You will apply to and be accepted into an Honors Track before the start of your junior year. The Honors Tracks are outlined on the Honors website and in the Honors College Student Handbook. Please refer to them for specific information about the tracks and the track courses.

Thesis Presentation: You will give a 10-12 minute presentation of your findings with additional time allotted for a question-and-answer period, at a university-wide event during Honors Research Week held in November or April. Your presentation must occur during your last thesis course and must take place prior to graduation. The presentation time will be arranged by the Honors College. Your Honors track director may require that you prepare PowerPoint slides to accompany your presentation. Creative thesis projects may require filming a performance. The Honors College staff and your track director will determine the exact requirements. Should you require support or accommodation in the presentation, reach out to your track director and the Honors College early in the process.

Written Thesis: Your thesis is a written document where the thesis question is discussed based on your research and analysis. If you write a creative thesis project, it should include information on the creative process. In both types of theses, the student is expected to include a thesis question, relevant literature, methodology, and analysis. Detailed descriptions of the written project are found below and will be discussed with your track director.

Who Writes an Honors Thesis?
All students enrolled in the University Honors College author an Honors thesis.

Thesis Archives: One way to find out what projects have been done in your discipline is to look at the Honors College thesis archive. We have hard copies of theses from the last 20 years in the Honors College office and digital copies online via Blackboard. Stop by to look!

Thesis length: You will notice that theses range in length, and there is no definitive answer to "how long does a thesis have to be?" The best way to find what would be appropriate in your field is to find examples of previous theses or to ask your Honors Track Director.

The Timeline for an Honors Thesis
Sophomores: Apply and be accepted into an Honors Track. Tracks have a certain capacity and can fill.
Juniors: Complete all track courses except for thesis courses.
Seniors: Complete thesis courses and two-semester project.
Transfer students: Students who transfer to WP as juniors will apply to their Honors Track in their second semester but should begin taking track courses in their first semester. Students who transfer as freshmen or sophomores should follow the schedule above.

Above all, **YOU ARE RESPONSIBLE FOR THE TIMELY AND SUCCESSFUL COMPLETION OF YOUR THESIS**. It is this independence and commitment that separates Honors thesis work from normal coursework. At the same time, your track director and the

Honors staff know that this is your first time doing a thesis and will provide you with appropriate guidance and mentorship throughout the process.

Thesis Forms
Thesis forms provide deadlines to keep you on track and allow us to measure the progress of thesis students. Forms provide the Honors College with information needed to justify and promote the Honors College and its work. Thesis forms can be found on the Honors College website. It is YOUR responsibility to make sure these forms are submitted by the Honors College deadlines. Please make sure to read ALL directions closely on each form before they are submitted.

Research (and Projects) Involving Human Subjects
If you plan to conduct research involving human participants, you have an additional step to take in completing your thesis: You MUST obtain approval from the Institutional Review Board (IRB) for any research involving human participants. You may NOT involve human subjects in any research activity until you have obtained IRB approval!

If you plan to film or photograph human subjects, you typically only need to obtain a video release from the individuals whose images will be captured in your thesis work.

Thesis Content Expectations
Determining a Thesis Topic: Before the start of your junior year, you will apply to join a research or creative performance Honors track. You will determine your thesis topic in consultation with your track director. Track courses inform the kinds of topics you will choose.

Below are the standard requirements. Your Honors College track director and/or thesis advisor may have specific requirements that differ from the following, including the number of chapters, chapter content and organization, etc. Below are the general expectations. Refer to instructions from your track director for additional requirements and expectations.

Text of a Thesis in the Humanities and Related Disciplines
Scholars from the humanities and related disciplines write a thesis that builds an argument. That argument or thesis statement should be a unique take on work in the field. Research into what others have said and done is the essential first step, but your thesis should go beyond prior work to include your own insights and critical thinking.
Chapter 1: Introduction/Background/Literature Review: The Introduction will have the thesis statement – that is, what you intend to argue in the thesis – as its centerpiece. A thesis statement is a short statement that summarizes the main point or claim of an essay, research paper, etc., and is developed, supported, and explained in the text by means of examples and evidence.
Middle Chapters Build the Argument: The middle chapters in this type of thesis address various aspects of the topic necessary to build the overall argument. There must be at least one chapter in between the Introduction and Discussion and most Honors theses will have at least two chapters in between the Introduction and Discussion, but you and your track director are responsible for deciding how many chapters are necessary.
Conclusion: In this final chapter of the Honors thesis, you sum everything up. Just as your introduction acts as a bridge that transports your readers into the "place" of your analysis, your

conclusion should help them see why all your analysis and information should matter to them after they put the paper down. In your conclusion you will consider broader issues, make new connections, and elaborate on the significance of your findings.

Text of a Creative Thesis

A creative thesis should never consist of just the creative work itself. In addition to whatever creative product a student decides to prepare, the creative thesis needs at a minimum two additional written sections – a proposal piece that explains the goals of the project and an evaluative piece that assesses whether and to what extent the student reached his or her goals. Thus, an Honors thesis that involves a creative presentation or a problem-solving project should contain the following sections:

Chapter 1: Introduction/Background/Plan. This Introduction will describe what you were attempting to accomplish in preparing the creative work, what goals you set for yourself, and why you set those goals. It should also typically contain a discussion of the historical and cultural context of the work and should explain how your work is influenced by the work of other artists, writers, musicians, etc., in your field.

Chapter 2: The Creative Product. This section will contain the actual creative work that you produced. If the product involved creative writing, then the text should appear here. If the product was a website, you should include pdfs of the website and links to the various pages of the website. If the product is not written, you should refer the reader to the creative piece that is attached to the text – e.g., a CD, DVD, photographs, etc. If the product is a performance, the student should aim to video record the performance, although audio recording is acceptable. If the product is a visual one – e.g., sculptures or paintings – slides or photos of the work should be included in this section.

Chapter 3: Evaluation. This section should address a variety of issues, including whether or not you accomplished what you set out to accomplish, what problems you encountered that led you to modify the product, etc. You may also wish to describe the creative process you went through as you worked on the product – e.g., what changed for you, what did you learn as you worked?

Text of a Research-Based Thesis in the Sciences, Social Sciences and Business

Biology *theses have specific requirements. See below.*
Business *group projects are allowed in specific circumstances. See below.*
Nursing *theses require five chapters with slightly different titles and expectations.*
Social Science *theses: Depending on the topic, theses in the social sciences track might be: 1) empirical research reports, 2) comprehensive reviews of the scientific literature, 3) legal analyses, 4) policy papers, or 5) historical essays. Some of these options are social science projects and some are more like humanities projects.*

Typically, the body of a standard, research-based thesis will include the following sections:

Chapter 1: Introduction/Background: The Introduction/Background should include a clear statement of the subject under investigation, the questions the thesis will attempt to answer, definitions of important terms, and a rationale for the study and the structure of the thesis.

Chapter 2: Materials and Methods: This should include a detailed description of the materials and methods – the theoretical approach, instruments used, data collection and analysis, performance principles, etc. This section often has subsections with sub-headers. For example,

the Methods section may have subsections, such as Participants, Procedures, Materials, Equipment, etc. You and your thesis advisor should determine what the appropriate sub-sections are.

Chapter 3: Presentation of Findings or Results: This section of the thesis must provide a careful analysis of results with convincing evidence to support the main thesis presented in the introduction, along with an analysis of the results of testing the hypotheses presented in the introduction.

Chapter 4: Discussion and Conclusions: This section will summarize the results and significance of your research, attempt to explain any unexpected findings, discuss the limitations of the project, and address directions that future work in the area should take.

Additional Guidelines for Thesis Projects- Biology Honors Track

Concept: Like all theses, a science thesis is a major original written work on a focused topic that in which a student develops expertise, generally exceeding that of their peers, both to answer the question proposed by the work, and to demonstrate the ability to do high-level research. A thesis in the natural sciences (biology, chemistry, physics, and related areas) is special in that it is explicitly empirical in nature- it involves observations of natural phenomena that can be measured and usually quantified, and these measurements can be compared and analyzed according to various techniques. These techniques can be understood and repeated by other workers. Then the results of those analyses are placed in the context of what other scientists have discovered, producing a complete scholarly work. This can be communicated in person and in writing. Note that there is almost always an extended period of training with, followed by laboratory or field data gathering, and data analysis before one ever sits down to "write" a thesis in the natural sciences. However, once you reach that stage, what goes in the thesis and what does not? That is what this document is meant to help with.

What is appropriate to include in a science thesis?

1. **Written material**- A science thesis is a major written work, just as any academic thesis would be. However, the things that are written follow a general format. First is the Introduction, which explains the problem being approached, previous findings by others (cited thoroughly, and in the correct format- author-date style), any hypothesis you plan to test, and your general approach.
2. There will be **Methods**- this section will outline what you did, in lab, in the field, or computationally, in detail, written in the past tense. This includes how you collected data, or if you are using data (it is possible to re-analyze data from other studies in some situations) how you chose it and put together your analyses. Any mathematical transformations, solutions, or statistical comparisons used should be explained here.
3. **Data**- scientific work is always based on data. In a thesis this is most likely data you collected, and this is usually included in a Results section. Results sections normally include the data, graphed or portrayed for easy understanding by the reader, and any mathematical or statistical outcomes/findings. The results section describes what the graphs show, but does not explain what they "mean" in the big picture.

Note: it is okay- correct even- to include experiments that did not work well in the methods or ones that gave strange outcomes in the results (or experiments that did both). In a thesis, all the work you did is valued, please include work that might have been "disappointing" in some sense, those "failures" are an important part of science, and are also worth discussing in the next section

as context for your findings.
4. **Meaning**- what you, the scientist, think this all means goes in the Discussion section. This section often includes multiple citations of others' work, since understanding what your findings mean in the "big picture" is very important. It also should relate the results back to any questions or hypotheses set up in the Introduction. A good Discussion section takes a "report" as you would do in a lab course and turns your work into a real scholarly piece of science.
5. **References**- all ideas and data from others' work need to be carefully referenced in a list, at the end of the thesis.
6. **Visualizations**- Charts, graphs, images, and tables all are normal parts of a scientific thesis. A well-done figure showing an interesting result, in fact, can be the key "outcome" of your hard work. Most of this material should in the Results section of your thesis. In some cases, a graph or picture might be seen in the introduction, or a depiction of an experiment included in your Methods section. Any graph should be at least ½ page in size, have a legend (box of text explaining what the graph is showing) and be included close to the text that describes it, embedded in the work.

- ***What is NOT appropriate to include?***
  Direct quotes.- especially long quotes. Scientific writing seldom utilizes the quote, which is more common in the humanities and social sciences. We recognize ideas as important, but the exact words of the original author, less so. We use a paraphrase-then-cite technique to reference other scientists' work.
- Tables of raw, unanalyzed data. Data are the raw material of your thesis, but usually not the final product. A spreadsheet with 100's of data points is hard to understand, a graph that summarizes those columns of numbers is usually much better.
- Multiple graphs or tables showing the same data different ways (pick the best representation for your results, and portray those). It is fine to have multiple graphs and possibly tables, but use them to portray different data, from different experiments, each in the easiest manner for the reader to understand.
- Data that were not used in your analyses. If you collected data but could not use it, you can describe that in the text, but do not include it. That can confuse your readers.
- Whole graphs copied directly from others' work. It is best to cite that information in text, not by copying others' visualizations.

How *Long* is an Honors Thesis in the Natural Sciences?
This is difficult to say, because science can take a long time to produce a finding that can be summarized in just a few pages. So, simply going "minimum ___ pages" is not very meaningful. HOWEVER, given that most theses will include significant background information, including theory and data, written Methods and Results from more than one experiment (maybe several), charts, graphs, or tables for each result, and at least two pages of references, a strong thesis should include, total, at least 20 pages of total "printable" material, not including cover pages or signatures. There is no maximum, but it is hard to imagine, in a Bachelor's degree thesis, more than 60 pages.

<u>Group Business Projects</u>
Group projects are allowed only in the Honors Business Track for students who participate in a group project as part of Practicum (ACCT/ECON/FIN/MGT/MKT 4850) and Case Writing

(ACCT/ECON/FIN/MGT/MKT 4860)

Here are the guidelines for acceptance of a group thesis project:

- There is a strong rationale for the thesis to be a group project.
- The student, the track director, the project advisor (if different from the track director), and the Dean of the Honors College meet prior to the start of the thesis work to discuss the structure of the project.
- It must be clear, in writing and from the outset, what part of the work is the responsibility of each student and what is the group's responsibility.
- Each student produces a thesis in which there may be some shared text/material, but which also includes the student's individual contributions to the project. Work done by the group must be appropriately cited.
- Each student, after the completion of the project, produces a written reflection on the nature of the endeavor with the group: how it worked and what was valuable. This reflection should be included as the last appendix to the student's thesis.

The Dean of the Honors College, in consultation with the track director(s) will make the final determination as to the acceptability of the group project thesis proposal.

Collaborative Thesis Projects (must be approved by September 30 if presenting/completing in May; must be approved by May 30 if presenting/completing in December)

The Honors thesis project is an individual project. In rare cases, the Honors College is open to exploring options for joint thesis work by pairs of honors students. The Honors College will accept proposals for collaborative theses under the following policies:

- There is a strong rationale for the thesis to be collaborative.
- There are two collaborators; both are Honors students.
- The two students have the same thesis advisor.
- The students, the thesis advisor, and the honors track director (if different from the thesis advisor), and the Dean of the Honors College meet prior to the start of the thesis work to discuss the structure of the project.
- It must be clear, in writing and from the outset, who is responsible for what part(s) of the work.
- Each student, after the completion of the project produces a written reflection on the nature of the collaboration: how it worked and what was valuable. This reflection should be included as the last appendix to the thesis.
- The students produce two theses in which there may be some shared text/material, but which also includes their individual contributions to the project. Work done by the collaborating student must be appropriately cited.
- The students, with consultation and approval by the Honors Track Director and the Honors Dean, can opt for either a joint presentation or two individual presentations.

Evaluation of your thesis presentation and your thesis

Your Honors Track Director will evaluate your thesis presentation and your thesis. Others, including other track directors and other Honors students, may be given evaluation rubrics for

assessment purposes that will not factor into your grade for your thesis courses.

Graduating with Honors: All thesis forms and the digital thesis (properly formatted) must be submitted by May 1st for May graduates, by August 1st for August graduates, and by December 1st for January/December graduates. These documents are required before the Honors College will certify you as an Honors College graduate. It is your responsibility to be sure all of the documents are submitted by the deadline.