Overview of Thesis Project

Completing an undergraduate honors thesis is a culminating academic experience for Schreyer Honors College (SHC) scholars. The SHC Thesis Project Guide states:

While the purpose of the completed thesis project, once it's out in the world, is to advance knowledge, understanding, or creative value in its field, the purpose of the thesis experience as a whole is to develop your intellectual and professional identity in the field, and to help you think about your future. ([https://www.shc.psu.edu/academic/thesis/project.cfm](https://www.shc.psu.edu/academic/thesis/project.cfm))

As such, the thesis experience is designed to pique your intellectual curiosity, develop research skills, contribute to advancing knowledge, provide an opportunity to work closely with a faculty member, and help you explore the possibility of a graduate degree or other research-focused work.

Students often ask, “What does a thesis project look like?” There are two parts of the answer—the first regarding the project itself, and the second regarding the written document that describes the project. The SHC website states:

The thesis project can take many forms — from laboratory experiments all the way to artistic creations. The thesis document captures the relevant background, methods and techniques, as well as describing the details of the completion of the individual project. ([https://www.shc.psu.edu/academic/thesis/](https://www.shc.psu.edu/academic/thesis/))

In the College of IST, students have completed survey studies, interpretive analyses of multimedia artifacts, statistical analyses of large data sets, design studies, case studies, and more. To view examples of theses in the College of IST, see the Penn State library’s honors library site, where all SHC electronic honors theses are catalogued and accessible: [https://honors.libraries.psu.edu/search/](https://honors.libraries.psu.edu/search/).

The thesis document, a written description of the entire thesis project, typically begins with an introductory section (often referred to as a chapter) that establishes the importance of the project’s research question. Most thesis papers then present a review of relevant work related to the project, a description of the project and the methods used, a presentation of the results, and a discussion of the findings. Some thesis papers also include a final conclusion section that may outline suggestions for future research. In addition to these main chapters, all theses include title page, signatory page, abstract, table of contents, list of figures, acknowledgements, bibliography, appendix items, and the Scholar’s academic vita.
Phases of a Thesis Project
Your thesis project unfolds in several phases—most of which begin long before you ever begin writing the thesis paper itself. The bulk of the work takes place over the final three to four semesters, but the work you do early on is important to the overall project.

Phase 1: Notice and Explore Topics
Semesters 1/2 (First Year) & Semesters 3/4 (Sophomore Year)
The first phase (which typically takes place in freshman and sophomore years) entails noticing and exploring topics of interest. This occurs by paying attention to ideas presented in class, student listserv messages, research articles on the IST website, and announcements about visiting researcher seminars. In many cases the instructor of a course, a researcher who gives a thought-provoking seminar, or your honors adviser can help you to learn more about a topic that has caught your attention.

(Important Note: If you plan on studying abroad in spring of your junior year, you should complete the research methods course, IST 489H, in spring of your sophomore year. This course teaches what you need to know about conducting a study and writing a thesis, and the course is offered only in spring semesters.)

Phase 2: Narrow Topic and Identify Thesis Supervisor
Semester 5 (Fall, Junior Year)
The second phase (which usually takes place in the fall of junior year) includes narrowing your potential thesis topic and identifying a thesis supervisor, the person who is responsible for overseeing your thesis project. You should work closely with your assigned honors adviser (meeting frequently to discuss your interests), in order to hone in on a topic and choose a faculty member to supervise your thesis. Once a faculty member has agreed to be your supervisor, the two of you will continue to narrow your topic and eventually formulate a research question for your study.

Phase 3: Prepare to Undertake your Study
Semester 6 (Spring, Junior Year) & Summer before Senior Year
The third phase (which usually takes place in the spring of junior year and the following summer) is a busy planning phase. You need to learn about what is required to carry out a study, complete any required certifications for working with human participants (if there will be any in your study), formulate your exact research question, read and review scientific literature to show that you have a good understanding of your topic, and design your research project. This is a semester to take IST 489H, the research methods course that will teach you much of what you need to know, and work closely with your honors adviser and/or thesis supervisor.

Phase 4: Undertake your Study and Write your Thesis Paper
Semesters 7/8 (Senior Year)
The fourth phase (which typically takes place in the senior year) includes carrying out your study and writing your thesis paper. Studies take a variety of forms, and the form will largely be determined by your exact research question and the methods you choose to complete your study. Your thesis supervisor will be your primary guide as you conduct your research and determine the different chapters to be written.
Semester by Semester Plan for Phase 1: Notice and Explore Topics

The information seeking and exploration activities of Phase 1 are best accomplished over the first two years at Penn State. Honors advisers highly recommended the semester by semester plan detailed here. Students who are not able to follow the suggested timeline should work with their honors adviser to alter the recommended schedule in a way that will allow completion of the activities.

Semesters 1/2 (Fall/Spring, First Year)

- **Notice** novel and engaging ideas, and keep track of things you find interesting (ideas from class, studies you are assigned to read, names of faculty you want to meet, research opportunities to investigate)
- Use tools like Diigo, a knowledge management tool, to capture and organize notes, screenshots, browser links, and more

This information will be invaluable as you hone in on a research topic in later semesters. It will also be useful when discussing interests with your honors adviser and, ultimately, your thesis supervisor.

Semesters 3/4 (Fall/Spring, Sophomore Year)

- **Explore** topics of interest by taking a follow-up or related course to classes you have found appealing (e.g., check out courses offered in IST or SRA certificate programs, courses for minors, brand new courses, and Emerging Technologies (IST 402) courses—described on the IST Advising Center webpage: [http://ist.psu.edu/current-students/advising-center](http://ist.psu.edu/current-students/advising-center))
- Request that a faculty member work with you for an honors independent study (if no organized follow-up or related courses exist)
- Assign yourself a reading list
- Work in a faculty research lab (and if the faculty members is willing to sponsor you for research credit, register for IST/SRA 294 or IST/SRA 494, research project credits)
- Apply to be a Learning Assistant for a particular course
- If you plan on studying abroad in spring of your junior year, complete your research methods course (IST 489H) requirement in spring of your sophomore year; this course is offered only in spring semesters

These activities will contribute to furthering your understanding about topics of interest and/or gaining knowledge about the research process.

Curiosity and Organization

The key to navigating the phases of a thesis project with interest and anticipation, not dread and stress, is allowing your intellectual curiosity to lead while taking care to employ good project management skills. Work closely with your adviser in your first two years and with your thesis supervisor in your final two years, so that you can determine a viable plan for a satisfying thesis experience.