Senior Thesis/Project: We’ll get you there

Professor Gordon Wyse (Biology)
CHC Thesis Coordinator
Planning a thesis in the sciences...
... and in the arts, humanities and social sciences
Why do a thesis or project?
What is a thesis and what is a project?
The process and the timeline
Why a thesis?

- Expand your resume/applications!
  - Better recommendation letters
  - Poster presentation of data
  - Published data?
  - CHC Research Grant

- Learn how to do a thesis
  - The CHC thesis process is like a mini-Masters!
  - Transferable skills like research, clear writing, making an argument and completing a significant piece of original work.
What are you going to do after graduation?

- Job? Graduate school?

- Whatever you do, people who will evaluate you will ask two things:
  - Can you learn stuff? Your transcript will answer...
  - Can you **do** stuff? Your thesis or project is your opportunity to demonstrate that you can complete a significant piece of intellectual work.
Benefits of a thesis or project

What do you get from a thesis or a project?

• Prepare for graduate school
• Acquire real world skills for the job market
• Learn to complete a sustained piece of inquiry
• Feel a tremendous sense of accomplishment
Thesis or project

- A *thesis* involves developing and working toward answering a research question.

- A *project* involves an alternative academic enterprise of equivalent intensity and scope, e.g. creative work (art, theater, music), engineering invention, business case study, etc.
The steps in the process

- Whether the intended end result is a thesis or project, each
- begins with creative inquiry and systematic research
- includes documentation of substantive scholarly effort
- culminates in an oral defense or other form of public presentation.
The product of a thesis or project

- Both result in a scholarly manuscript, with the project manuscript often supplemented by an artifact (archivable product) created as a result of the research.

- Examples of artifacts: DVD of a theatre performance or musical score, architectural blueprints, screenplay, and collection of original poetry.
Disclaimer

- The process and specific requirements may vary by department.

... See your Honors Program Director (HPD)!
There are two approaches to a thesis/project

- **Individually contracted** between a student and faculty research committee, using the online CHC Paths Honors Thesis/Project contract process, or

- **Classroom seminar** guided by an instructor's preapproved syllabus on a specific topic and registered via SPIRE. Seminar descriptions are listed in the Honors Course Guide and are subject to change year to year.
Timeline for a thesis or project: Overview

- **1st semester junior year (at latest)**
  - Brainstorm possible topics
  - Discuss your ideas with your professors

- **2nd semester junior year**
  - Find a faculty supervisor
  - Define a project
Timeline: Steps in the process

- **1st semester junior year (at latest)**
  - Join a lab
  - Take relevant courses for preparation

- **2nd semester junior year**
  - Define a project, get your ducks in a row, pilot
  - Submit 499Y
  - Submit CHC Research Grant

- **Summer between junior and senior year**
  - If everything isn’t in place, get in place.
  - IRB approval if working with human subjects
Timeline: Steps for thesis seminar process

1st semester junior year (at latest)
- Find out which courses are likely to be offered during your senior year
- Confirm with the instructor (or HPD) that you are eligible for the course
- Confirm with an advisor (or HPD) that it will meet your track requirements

2nd semester junior year
- Register for the course
How do you register for thesis work?

- Remember: Options are Individually Contracted thesis or project, and Thesis Seminars (499 courses)

- The **individually contracted** path requires students to develop a proposal with a faculty sponsor and have a second faculty member on a guidance committee, which both supervises and evaluates the thesis or project. For registration, the proposals are submitted on PATHS and need approval of the faculty sponsor, the department Honors Program Director (HPD) and the Academic Standards Committee (ASC) of CHC.

- The **seminar** path simply requires registering for the seminar course. Permission of the instructor typically is required.
What are the thesis seminar (course) options?

- Thesis seminars can be in a student’s major department, which are appropriate for students pursuing departmental honors, or can be multidisciplinary for students pursuing multidisciplinary honors.

- An example is the senior thesis seminar based in the Economics Department, “Causes and Consequences of Globalization”

- Students from many different majors participate.

- Theses have been written on how globalization in the form of foreign aid affects health outcomes in African countries, how English language yields a wage premium in developing countries, and the globalization of pollution.
Timeline: Registration for an Independently Contracted thesis or project

- **NOW**: Initiate conversations with faculty regarding potential honors thesis or project research topics
- April/May of Junior year: choose a faculty thesis advisor faculty members to serve on the guidance committee
- **NOTE**: Absolute **final deadline** for student submissions on PATHS of proposals is **August 15**. We **STRONGLY** encourage students to have the proposal approved by the faculty sponsor and submitted on PATHS by the end of the Spring 2017 semester for a thesis course registration in Fall 2017.
Timeline for independent thesis or project

- April/May of Junior year
- Discuss and draft Part I research proposal which addresses:
  - Statement regarding the goal of the thesis/project
  - Key readings
  - Communication with committee
  - Specialized training
  - Methodology
  - Timeline
Timeline: Work to be completed in 1st semester

- You will have submitted Part I research proposal and registration request via CHC PATHS online. Download PDF for instructions on submitting a 499Y contract for Part I of the Honors Thesis/Project.

- With advisor, select second committee member

- September thru December of Senior year: conduct Part I research
Timeline: Work to be completed in 1st semester

- November/December of Senior year:
- Guidance committee evaluates Part I research and determines if student may proceed with Part II
- Discuss and draft Part II research proposal which addresses:
  - Introduction
  - Review of Literature
  - Methodology
  - Evaluation
  - Communication with committee
  - Timeline
Timeline for completion in second semester

- 2 weeks (mid-February): Analyze data
- 2 weeks (beginning March): Writing thesis
- 1-2 weeks (mid March): Thesis draft due to Chair
- 1-2 weeks (early April): Written thesis due to committee
- 2 weeks (mid-April): Thesis defense to committee
- 1st week of May: Thesis due to CHC
What is the scope of a thesis?

- Can you find something that’s potentially publishable?

- Must have a clear objective, a well-defined methodology, a testable hypothesis, and results that lead to a conclusion.
What is the scope of a thesis?

- Can you find something that’s potentially a contribution to knowledge and publishable?
- Must have a clear objective, testable hypothesis, and results that lead to a conclusion.
- Has the format of a professional article. You will learn to do an abstract, a literature review and how to describe and present data or non-quantitative evidence, how to describe a methodology and how to evaluate results.
What is the scope of a project?

- Must have a clear objective, a format appropriate to the objective and some artifact (archivable product).

- An example is a play that has a specific artistic purpose and may or may not be performed.

- The written play is then the artifact.

- Similar projects can be done for all performing arts.
What is the scope of a project?

- A project in engineering might be the development of an instrument or device.

- A project in public health might be a plan to improve education in primary schools about proper nutrition.

- Students can work jointly on a project as long as the contribution of each student is clearly defined and present in the final product.
Examples of project topics of former students

- Documentary film on lions
- Cookbook annotated with cultural analysis
- Full jazz score
We will have several further thesis workshops

- Fall dates are
  - October 19
  - November 2
- Topics will include developing a thesis proposal, writing and time management, and research resources and skills
- Want help? Ask Honors Advisors, or me
- Questions now?