

5640 SOUTH ELLIS AVENUE CHICAGO, ILLINOIS 60637

#### Guidelines for the Honors Thesis Course ASTR 29900

ASTR 29900 Honors Thesis is an independent research course, supervised by a faculty member, in which the student either contributes to a faculty research project or engages in an approved independent research project for the duration of an academic year (Autum through Spring Quarters).

The faculty supervisor and student should identify a project of appropriate scope that can be completed in three quarters as the thesis research. Research that was begun prior to the Autumn Quarter of the fourth year may serve as the basis for the project; however, thesis research may not commence until enrollment in ASTR 29900 is completed. Please note students cannot receive both academic credit and payment for the same research project.

#### Eligibility

- o This course is open to students who are majoring in Astrophysics with fourth-year standing and who have an approved research project that will be supervised by a faculty member (including research faculty) in the Department of Astronomy and Astrophysics.
- The research project must be substantive enough to require a duration of three quarters to complete.
- O The student must have a G.P.A. of 3.50 or higher in the required courses for the Major and 3.0 overall or obtain consent from both the Deputy Chair for Academic Affairs and the supervising Faculty Member.
- A student who received a grade of D in any course in the Major program is ineligible for the Honors Thesis.

#### **Enrollment**

- o The student should first confirm that eligibility requirements have been met to enroll in ASTR 29900. Please direct any questions about eligibility to Dr. Julia Brazas, Academic Affairs Administrator (julia@uchicago.edu).
- o Enrollment takes place during the add/drop period of Autumn Quarter using the Reading and Research form available on the <u>College website</u>. This form should be completed by the student and submitted to Dr. Brazas before the end of the add/drop period. Enrollment is then completed by Dr. Brazas.

#### Requirements

- o The student's thesis research should consist of substantial and significant enough results to be presented at a large-format scientific conference, e.g. AAS or IAS, or of sufficient import and quality to be submitted to a smaller publication like the AAS Research Notes.
- O The Honors Thesis paper does not have specific format requirements other than being similar to scientific papers published in professional journals; i.e., they should contain a concise abstract, a comprehensive introduction that reviews the general topic (more extensively than a typical publication), followed by presentation of the work itself: the data or theory used, analysis methods, results, and main conclusions. Students should seek guidance from their research supervisor as to any specific formatting requirements. Examples of Honors Theses are available in the Academic Affairs Administrator's Office.
- O All students completing Honors Theses will present their research to members of the Astronomy and Astrophysics Department at a public event in the 9-10<sup>th</sup> weeks of the Spring Quarter. Presentations should last approximately 15-20 minutes, including time for Q&A. The presentation does not have specific format requirements, unless specified by the student's research supervisor. Note that presentations take place after grade submission for ASTR 29900 and thus are not included in the final grade for the course.
- O An electronic copy of the final thesis must be filed with the Department of Astronomy and Astrophysics by email to Dr. Brazas at julia@uchicago.edu by the last Friday of the Spring Quarter. Exemplary theses will be advanced for consideration in undergraduate research award programs.
- Students are strongly encouraged to submit theses to The University of Chicago Library's Knowledge@UChicago <a href="https://knowledge.uchicago.edu/">https://knowledge.uchicago.edu/</a>, an open access repository of scholarly work at Chicago.

### **Expectations for Completing the Honors Thesis**

Specific Expectations of the Research Supervisor and Student

- Establish a regular schedule of meetings/communication for the duration of the research project and preparing the thesis. The frequency of these meetings should be once per week.
- Identify the best mechanisms for communication (e.g., if email is likely to get buried it may not be effective) and appropriate time frame to expect a response.
- Establish a process for documenting discussions/feedback that help refine thesis content.

### Specific expectations of the Research Supervisor

- Help the student identify a thesis project of appropriate scope.
- Advise and guide the student in planning the execution of the research to be conducted.
- Provide timely feedback.
- Honor scheduled meetings.
- In consultation with the student, identify two additional readers of the Honors Thesis by the end of Winter Quarter. Readers can be selected from among faculty and research professors in the Physical Sciences Division. If appropriate, faculty and research professors from BSD and IME, as well as postdoctoral scholars and Argonne/Fermilab scientists, can be included as readers.
- In consultation with the student, determine a schedule for completing a draft of the Honors Thesis so that it can be shared with the additional readers by the 5<sup>th</sup> week of Spring Quarter with feedback provided no later than 6<sup>th</sup> week of Spring Quarter.
- Submit a final grade for the thesis by 8<sup>th</sup> week of the Spring Quarter.
- Participate in a public review/presentation of the completed thesis held during the 9-10<sup>th</sup> week of Spring Quarter.

### Specific Expectations of the Student

- Students are expected to work independently on their Honors Thesis project over three quarters, with guidance from their research supervisor.
- Provide drafts to the research supervisor at mutually agreed upon times.
- Honor scheduled meetings.
- In consultation with the research supervisor, identify two additional readers of the Honors Thesis by the end of Winter Quarter. Readers can be selected from among faculty and research professors in the Physical Sciences Division. If appropriate, faculty and research professors from BSD and IME, as well as postdoctoral scholars and Argonne/Fermilab scientists, can be included as readers.
- In consultation with the research supervisor, determine a schedule for completing a draft of the Honors Thesis so that it can be shared with the additional readers in the 5<sup>th</sup> week of Spring Quarter with feedback in the 6<sup>th</sup> week of Spring Quarter.
- Participate in a public review/presentation of the completed thesis held during the 9-10<sup>th</sup> week of Spring Quarter.
- Submit final Honors Thesis to Dr. Brazas and to Knowledge@UChicago by the end
  of the 10<sup>th</sup> week of Spring Quarter.
- Notify Dr. Brazas of any alterations in the expectations or timeline for completion.

#### Administrative Timeline for Completing the Thesis

#### Autumn Quarter

# Due by the end of 3rd week

o Complete the Reading and Research Form and return it to Dr. Brazas.

#### Winter Quarter

## By Friday of Finals Week

- With the research supervisor, identify two additional readers of the Honors Thesis and provide them with schedule information for reading and returning the thesis (see Spring Quarter).
- o Names and email addresses of readers should be submitted to Dr. Brazas.

### Spring Quarter

## By Friday of 4th Week

 Submit Honors Thesis to your research supervisor, who must approve it before you send it to your readers to review.

## By Friday of 5th Week

O Submit your thesis, approved by your research supervisor, to your two readers.

# By Friday of 6<sup>th</sup> Week

- o Readers return their reviews.
- o If recommended, make any final edits based on feedback and finalize Honors Thesis.
- o Thesis scheduling begins.

## By Friday of 7th Week

- o Prepare for thesis presentation (the presentation is not included in the final grade).
- o Provide thesis title, abstract and headshot to Dr. Brazas.

## By 5:00pm on Friday of 8th Week

o Final grade for the Honors Thesis is due.

## 9-10th Week

o Thesis presentations.

# By 5:00pm on Friday of 10th Week (Senior Week)

o Deadline for all theses to be submitted to Dr. Brazas.