

COMPREHENSIVE EXAMINATION

All graduate students are required to take the graduate Comprehensive Examination *in their second year*. Incoming graduate students with graduate credit that has been transferred from another institution may petition the Graduate Committee to take the Comprehensive Examination during their first year as a graduate student. The Examination has two components, written and oral. Further guidelines are as follows:

I. **Choosing the Topic:**

The Examination topic is proposed by the student and must be approved by the Graduate Committee. *The topic for the exam is clearly distinct from that of the primary research of the student*. The topic proposal consists of a one-paragraph overview of the topic that briefly describes its importance to Physics and Astronomy and the elements of core graduate-level topics that it entails. Before the final submission of the topic, consultation with the Graduate Committee Chair and the research advisor, to guide the choice of the topic, is strongly advised. *The deadline for submission of the topic proposal is the end of the 6th week of classes in Autumn Quarter.*

II. **Written Component: Submitting the Outline of the Paper**

Once the topic proposal has been approved, the student prepares an outline of the written component consisting of a brief description of its main sections, including appropriate sources and references. *This outline must be submitted not later than February 1st*. The corresponding Examination Committee provides feedback to the student on the proposed outline as a way of guiding the student toward the completion of the final paper.

III. **Written Component: Submitting the Final Paper**

For the completion of the written component of this Examination, the student prepares a paper of >2500 words in length, due by *March 31st*. The paper should describe in detail the key elements of the proposal and include rigorous mathematical derivations at the core graduate level. The paper should clearly address one or two key elements of the topic in depth, as opposed to a broad literature overview of all aspects of the chosen topic. *All revisions of the written component must be completed by the end of April*. Upon approval of the written component, the oral component may be scheduled.

IV. **Oral Component:**

The oral component is based on the written component, but also addresses related topics of the student's graduate core curriculum. It consists of a ~30 minute presentation on the topic by the student, followed by questions from the committee. *The oral component must be completed by the end of May*.

V. **Possible Outcomes:**

The possible outcomes of the Comprehensive Examination, as decided by the Comprehensive Examination Committee, are: Pass at Ph.D. level, Pass at M.S. level, or Fail. The outcome of the Examination is provided to the student.

If the outcome of the Examination is not satisfactory, a second and final attempt can be undertaken. This would normally take place during the following year's Examination sequence. Administration of the Examination at an earlier date is possible if extenuating circumstances exist and if approved by the Graduate Committee.