

Aerospace Ph.D. Candidacy Exam:

The candidacy exam shall be taken before the start of the second term of the third year of residence at the Institute. The intent of this oral exam is to determine whether the student has prepared a thesis topic, understands and has planned the research that will be necessary to graduate with a Ph.D.

The selection of the Candidacy Committee is to be discussed with the advisor (the advisor may not serve as the chairman) and must be approved by the option representative. One of the three committee members besides the advisor must be a scientific faculty member outside the Aerospace Department. It is the responsibility of the student to ascertain that the proposed members are available and willing to serve in their respective functions.

Prior to the candidacy exam, the student will prepare and discuss with the advisor a brief written outline of his/her research, defining the research area, specific topic and research goals, summarizing progress to date and future work (see the end of this document for further guidance on this outline). This must be prepared in not smaller than 10-point font and must not exceed two pages including all graphics, citations and other material. This outline shall be provided to the committee members no later than one week prior to the exam and also at the beginning of the exam.

In order for the candidacy exam to occur, the student must complete the Ph.D. Candidacy Plan of Study, showing the progress towards completion of the candidacy course requirements, and the Candidacy Examination Data sections of their REGIS record as soon as possible, but no later than one week before the proposed date of the exam for approval by the Option Representative

The candidacy exam itself is divided into two parts. In the first part the student will provide a brief account of the research and progress made. The presentation may not exceed 20 minutes with a maximum of 12 slides of overheads including title, outline of the presentation and conclusions/future work. There will be no interruptions other than questions of clarification during this time.

In the second part of the candidacy exam, the committee members will present questions for the student to consider related to the student's presentation, the outline document and/or the thesis topic.

To pass the candidacy exam as a whole, the student's performance in both parts of the exam must be satisfactory.

On successful completion of the candidacy exam and the candidacy requirements listed in the catalog, the student will be admitted to Ph.D. candidacy.

If the student is unsuccessful, the committee will select one of the following options:

1. No pass. Recommendation of a second candidacy exam within a time period to be specified by the committee.
2. Fail. The student will not proceed further towards the Ph.D. and should consult the Institute Catalog and with the advisor concerning the possible completion of an Engineers' Degree.

Guidelines for Preparing the Candidacy Research Outline

Candidates for a GALCIT Ph.D. must submit to the Candidacy Examination Committee a two-page summary describing their thesis research goals no later than one week before the exam. This must be prepared in not smaller than 10-point font and must not exceed two pages including all graphics, citations and other material. The questions listed below may be used as a checklist in preparing the two-page summary:

1. *What is the research about? What are the goals/objectives?*
A list of work performed, or to be performed, for example, does not answer this question.
2. *Why is the work important? Why should one support it, or spend time doing it?*
3. *How will the proposed research be done? What methods will be used?*
4. *What will be learned (e.g., facts) by this work? What new understanding is expected to emerge from it?*
The answer must include what material is expected to be learned and what understanding will be gained as a result of the work/research. Learning (new facts) and gaining new understanding are not the same.
5. *Within your research field, what parts of your research are new and innovative? In what sense is your work an original research contribution that advances our state of knowledge.*