

AEROSPACE ENGINEERING GRADUATE PROGRAM YEATES SCHOOL OF GRADUATE AND POSTDOCTORAL STUDIES

PhD Candidacy Examination Procedural Guide

Every AEGP/PhD student must take a pass/fail Candidacy Examination *not later than 2 years* after registration in the PhD program and completion of all required courses. This examination is made up of two components, a written component (which is carried out first) and an oral component (which is carried out about 2 weeks later, if the written component is passed), and it is usually scheduled between 17 and 22 months (i.e., between the 'second' January and June) after (September) registration.

At least one month prior to the desired date of the written component of the Candidacy Examination, a PhD Supervisory Committee Approval Form must be submitted to the Program Director or Program Administrator; also, *at least three weeks* prior to this date, a Candidacy Examination Scheduling Request Form must be submitted. Both forms are available on the AEGP website. The members of the Supervisory Committee are selected by the student's supervisor (or co-supervisors) and shall consist of the student's supervisor (or co-supervisors) and at least two AEGP faculty members. (Additional non-AEGP members may be included, if necessary). The members of the Candidacy Examination Committee shall consist of the program director (or designate), who serves as the chair of this committee, and the members of the Supervisory Committee.

At least two weeks prior to the date of the scheduled written component of the examination, the candidate must submit to the members of the Candidacy Examination Committee a comprehensive PhD research proposal which consists of not less than about 15 pages and not more than about 30 pages, and which has been reviewed and approved by the student's supervisor (or co-supervisors). Subsequently, each committee member must submit to the committee chair a question based on the research proposal. Each question may consist of parts (a, b, c, etc.), it may be partly quantitative (i.e., involve analysis and/or calculations and/or diagrams) and partly qualitative (i.e., involve a written explanation) or completely qualitative (but not completely quantitative) in nature, and it should be answerable in a time of 150 to 180 minutes (i.e., 2.5 to 3 hours) divided by the number of committee members. (For example, if there are 3 committee members, each question should be answerable in 50 to 60 minutes.) The intent of this component of the examination is to determine both the scope of the candidate's technical knowledge of his/her area of specialization and his/her ability to communicate this knowledge in writing. The committee chair will ascertain that the questions are appropriate (through discussion with the student's supervisor or co-supervisors, if necessary) and will invigilate the examination on the scheduled date. The student's answers will be delivered individually to the committee members, who must decide within a week whether or not the answers are satisfactory. If all committee members are satisfied, the oral component of the Candidacy Examination will proceed as scheduled. If two (or more) committee members are not satisfied, the oral component of the examination will not proceed and the student will be notified that he/she has failed the written component of the examination, which will be rescheduled (with possibly different questions).

The following items are relevant to the oral component of the PhD Candidacy Examination.

- i. The candidate will be asked to present his/her research proposal within a period of about 20 minutes, and then he/she will be questioned by each member of the examination committee.
- ii. The questions posed by the committee members must be related (directly or indirectly) to the research proposal and may be extensions of those asked in the written component of the examination.
- iii. With respect to the pass/fail evaluation at the conclusion of the oral component of the examination, the committee chair will vote only if (a) he or she has agreed to serve as an official examiner or (b) in the case of a tie.
- iv. The Chair may question the candidate whether or not he or she is an official examiner.
- v. There is no specified time limit for the oral component of the examination; however, its duration should be between 2 hours and 2.5 hours.

Once the student has passed the Candidacy Examination, he/she must carry out the proposed research with the aim of completing it within the following two years (on the average). Prior to the (final) PhD oral examination, the student will be required to give a research seminar.