

PROPOSED CANDIDACY EXAMINATION COMMITTEE

Name _____ Date Submitted _____ Indicate **AM** _____ **SC** _____

- (1) I have read the attached proposed examination prospectus. It meets with my approval and I agree to question the student on the primary, secondary, and course material cited.

- (2) I agree to serve on this student's Candidacy Oral Examination Committee.

Name _____ Date _____
 - PRINT NAME AND SIGN ABOVE

Name _____ Date _____
 - PRINT NAME AND SIGN ABOVE

Name _____ Date _____
 - PRINT NAME AND SIGN ABOVE

Name _____ Date _____
 - (Optional)

GC AMSC APPROVAL _____ **Date** _____

Candidacy Examination Proposal Instructions

The candidacy examination is an oral examination that serves as a test of the detailed preparation of a student in the area of specialization and seeks to discover if he or she has a deep enough understanding to carry out research in that area. The objective of the candidacy examination is to show the student's mastery of tools and techniques at a research level. The examination is usually taken before a student embarks on serious dissertation research.

The candidacy examination proposal consists of two parts: (1) a Prospectus that sets the scope of the exam, (2) and an examination committee that has read and agrees to abide by the prospectus. The proposal must be approved by the AMSC Graduate Committee before the exam takes place.

1. **Examination Prospectus:** The examination prospectus is prepared by the student under the supervision of the student's advisor. It should discuss three kinds of topics:
 - a) **Primary Material:** The focus of the exam will be a presentation by the student of material in one or more research articles. These articles should be related to the student's expected area of research, not on the student's own research. **The candidacy prospectus should explain briefly what problems the area of research [of the material to be presented] aims to solve, what tools and techniques it uses, and the scientific status or value of the contributions made in these articles.** The student's understanding of the contribution and possibly the incompleteness of the research in the primary references will typically be included in both the prospectus and the candidacy examination.
 - b) **Secondary Material:** The prospectus should identify five to ten articles or chapters in books related to the primary material and briefly discuss the nature of these relationships.
 - c) **Course Material:** The prospectus should identify at least six courses the student has taken that covered topics relevant to the mathematics or the science of the primary or secondary material. It should also briefly discuss the nature of these relationships. At least two of these courses should have primarily mathematical content and two should be in the area of application of the student. The prospectus should be written in a scholarly style, with proper citations to lists of primary, secondary, and course material referenced at the end. The entire prospectus should not exceed six pages in standard format.
2. **Examination Committee:** The examination committee is appointed by the AMSC Graduate Committee upon recommendation of the student's dissertation advisor. The examination committee must consist of at least three AMSC Faculty members; at least one that represents the mathematical base of the Program and one that represents the area of application of the student. The examination committee may have an optional fourth member drawn from the Graduate Faculty. If the fourth member is not an AMSC Faculty member, there should be a short justification memo from the student's dissertation advisor identifying the additional expertise that the member provides to the committee. Each member of the examination committee should read and agree to the prospectus and sign the form on the reverse side.