

# Requirements for Area B

## Coursework

A student must take for credit 4 approved courses from the Area B list of course offerings found in The Graduate Catalog [including CAM 383C, Numerical Analysis: Linear Algebra; CAM 383D, Numerical Analysis: Interpolation, Approximation, Quadrature, and Differential Equations or CAM 386K, Numerical Treatment of Differential Equations; and a course on parallel computation], and achieve a GPA of at least 3.5 in those courses. The courses will be submitted to the CAM GSSC for approval.

## Examination

Each student must pass an oral examination over a subset of Area B material. A three-person examination group from the CAM faculty will be nominated by the student in consultation with the Graduate Advisor, and approved by the CAM GSSC. The examining committee will determine the precise format of the examination, but these are the expectations.

1. The student will be given a number of problems by the committee 1 hour before the exam, and allowed to prepare a response, without benefit of books or notes.
2. The examination will then last approximately 2 hours.
3. The student will be examined over the contents of approximately 400 pages of material from three texts, with at least 100 pages from each text. The texts need not be the actual texts used in the Area B courses, but are at the level of those courses, and cover similar material. The texts and pages to be covered are chosen by the examining committee.
4. The examiners will expect the student to reproduce proofs, solve problems, relate results, and explain the significance of material found in the selected pages.
5. Preparation for the exam is expected to occupy 1-2 months after completion of coursework.