### JOINT BA/MS OR BS/MS IN COMPUTATIONAL AND APPLIED MATHEMATICS

### Course Requirements

The graduate component of the proposed BA/MS or BS/MS program consists of at least nine courses, as described below. All course programs must be approved with the signatures of the student’s graduate program advisers.

#### Three courses from one of the following tracks (300 units):

- **Applied Analysis and Modeling Track**
  - CAAM 31410: Applied Dynamical Systems 100
  - CAAM 31210: Applied Functional Analysis 100
  - CAAM 31220: Partial Differential Equations 100
  - **Total Units**: 300

- **Computational Mathematics Track**
  - CAAM 30900: Mathematical Computation I: Matrix Computation Course 100
  - CAAM 31015: Mathematical Computation IIA: Convex Optimization 100
  - or CAAM 31020: Mathematical Computation IIB: Nonlinear Optimization 100
  - CAAM 37710: Machine Learning 100
  - **Total Units**: 300

#### Three elective courses within the CAM program (300 units)

- Students are able to choose three CAM elective courses. These electives can be chosen from the track that they did not pursue above or from other courses offered as part of the CAM graduate programs, chosen in consultation with a student’s graduate advisers.

#### Three additional graduate-level electives related to CAM (300 units)

- Students may choose these electives from the above lists or from graduate-level courses related to CAM offered through the Physical Sciences Division, Toyota Technological Institute at Chicago, or the Booth School of Business.

### Master’s Thesis Option

- Students may optionally choose to write a master’s thesis under the direction of a faculty adviser. Completing this option requires submission of an adviser-approved version of the thesis and the presentation of a public 30-minute master’s seminar. Students may ask any member of the Committee on Computational and Applied Mathematics to advise their master’s thesis; advising is by mutual agreement between the student and
potential adviser. Students in the joint BA/MS or BS/MS program may complete the thesis option during their three quarters of graduate enrollment.

CONTACTS
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