MASTERS DEGREE SCM IN APPLIED MATH.
DETAILS AND APPLICATION FORM

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1. INTRODUCTION

The Division of Applied Mathematics does not offer a professional Masters program. However, our instructional and research offerings afford rich possibilities for those who are preparing for careers in industry or government or who will seek teaching jobs that do not require the PhD, and who wish to improve their background in any of the various areas of applied mathematics.

Brown undergraduate and graduate students can enroll in our graduate program to earn a ScM in Applied Mathematics in three different ways:

Open Graduate Program: The new open graduate program allows Brown PhD students to pursue a ScM in a different discipline while they work on their PhD. Further details are given below and on the Graduate School website.

Fifth Year Masters: Brown undergraduates may be allowed to continue at the University for a master’s degree after completing their bachelor’s degrees.

Applied Math Graduate Program: PhD students in Applied Mathematics automatically receive an ScM in Applied Mathematics once they satisfy the requirements for the ScM degree.

Date: Revised October 14, 2014.
Please note that the Division does not offer a masters program for students who do not fall into one of the above categories.

2. Requirements for ScM in Applied Mathematics

The formal course requirements for obtaining an ScM in Applied Mathematics are the same for all three routes:

- A total of 8 courses must be satisfactorily completed;
- At least 6 of these must be Applied Mathematics (APMA) courses.
- At least 6 of the 8 courses must be taken at the 2000 level.
- A maximum of 2 Cs are allowed among the 8 courses.
- Research courses such as APMA 2980 and 2990 are not acceptable for fulfillment of requirements. However, topics courses may be acceptable provided they meet regularly, have regular homework assignments and examinations, and are deemed suitable by the Director of Graduate Studies.
- Courses taken on a satisfactory/no credit basis (S/NC) may not be counted towards fulfillment of the requirements.

3. Open Graduate Programme

In a pilot program that started with the Academic Year 2012/13, Brown University's Graduate School offers a small group of PhD students from any discipline the opportunity to pursue a masters degree in a secondary field. The objective of this pilot project is to enable students to combine fields in unique ways and acquire expertise in more than one area. Consequently, there is no constraint on the choice of the secondary field, which may be either close to or quite far removed from that of the doctoral studies.

The Graduate School envisions that the program will enable select doctoral students to write unique dissertations that require knowledge in more than one field. Additionally, the program may help Brown graduate students be more successful in an increasingly competitive job market. Our overarching idea is that the Open Graduate Education program will provide Brown graduate students with the opportunity to broaden their intellectual and scholarly horizons as they prepare to launch their careers.

Admission to this program is by application only, using forms provided by the Graduate School. Importantly, students who wish to participate are asked to design a curriculum of their choice. The following guidelines apply:

- Students need to be in good standing in the doctoral program and be making good progress. Students need to have a supportive doctoral program and research advisor (if they have one).
- A students application needs to be supported by the proposed masters program. This may be equivalent to being admitted to the masters program. For some programs, it is a requisite that the student has undergraduate credentials that support an expectation of success in the secondary field.
• Given that there are different ways in which masters and doctoral studies could be successfully combined, we ask that students propose an anticipated path to the concurrent degrees. One path might be to take a continuous, light course load in the secondary field while pursuing the doctoral education, such that after 6 years of combined study (starting with the time of entry to the PhD program), both degrees are completed. Another option could be to complete the masters degree early so as to feed the knowledge gained into the dissertation research. Or alternatively, a student could save the masters coursework until after PhD coursework and other pre-dissertation work is completed. It is up to the graduate student to propose a viable path.

• Students must have completed at least one year of their doctoral studies at Brown before the secondary field can be started. (The application for the Open Graduate Program can be submitted during the first year of graduate study.) Preference will be given to students who apply early in their graduate studies. The Graduate School recognizes that pursuit of a secondary field requires additional time. For this reason, additional financial and mentoring support will be available to the students selected for this program.

• The Graduate School encourages students to think broadly and creatively about their doctoral education and is looking forward to applications.

3.1. Financial Support. Students should realize that study of a secondary field requires significant effort and dedication. The application should include a realistic plan for dealing with the competing demands on time and for completing both degrees successfully. It is also important to plan with the 6-year time limit in mind. Graduate Students who remain in good standing in both fields of study throughout these six years will:

• receive support for the summer months prorated at the academic year stipend. This should allow students to focus on their studies and make up for any time possibly lost during the academic year. (Realize that three summers, for example after the 3rd, 4th and 5th years, add up to one extra academic year of study).

• receive an extension of the regular 5-year support guarantee to a 6th year of study. Stipend support from the Graduate School during the 6th year will be in form of a teaching assistantship. While not a requirement of the program, students at that stage can propose to their doctoral program and the Graduate School to teach a course that combines the two fields of expertise.

This enhanced support package is designed to enable students to finish both degrees within the 6-year time frame. No further stipend support will be made available after the 6th year.
4. Fifth Year Masters

The 5th-Year Master’s Degree option allows Brown undergraduates to continue at the University for a master’s degree after completing their bachelor’s degrees. Up to two courses of the eight required for the master’s degree may be completed while the student is an undergraduate, but at least six semester courses must be taken while in residence.

4.1. Application Procedure. Students must apply for this program before they complete their undergraduate studies. Admission must be approved by the Director of Graduate Studies in and by the Graduate School. While a student must be enrolled as an active undergraduate student at the time of application, admission to the graduate program can be deferred for up to two years with the approval of the department.

Prospective students should complete an application form (found in the Appendix) and contact the Director of Graduate Studies via email to set up an appointment to discuss the application informally. An unofficial transcript and your proposed course plan should also be brought to the meeting.

Following the meeting, all being well, you would then formally apply to our Masters program through the Graduate Schools online application portal. The Division will contact you once your application has been processed.

4.2. Transferred Credits. With permission from the Director of Graduate Studies (DGS), one course (with a letter grade) can be transferred for credit from the undergraduate degree provided it has not been counted toward the undergraduate degree: students who wish to transfer a course should ask the Director of Undergraduate Studies to confirm, via an email to the DGS, that this course was not used for their undergraduate degree.

4.3. Financial Support. Undergraduate financial-aid awards do not extend into graduate school. The Division does not generally offer financial support to their 5th-Year Masters students.
Appendix A. Fifth Year Master’s Application Form

Name
Email
Concentration
Graduation Year

Two professors who have agreed to provide recommendation letters:

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<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Department</th>
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Courses which you propose to take/offer for the ScM Applied Math

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<tr>
<th>Year/Sem</th>
<th>Grade</th>
<th>Code</th>
<th>Instructor</th>
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☐ I wish to apply to take the above courses towards ScM in Applied Math.
☐ The above courses meet the requirements for ScM in Applied Math.
☐ I have attached a complete unofficial transcript.
☐ I have attached the following additional documents (if required by DGS)

Signature: Date:

Send completed form Prof. Mark Ainsworth, Director of Graduate Studies at the address below. A meeting will then be arranged to discuss your application.

Division of Applied Mathematics, Brown University, Providence RI 02912
E-mail address: Mark.Ainsworth@brown.edu