

## **Department of Mathematics, CU Boulder**

### **Concurrent Bachelors/Masters Program Overview**

**About the Program:** The Department of Mathematics Concurrent Bachelors/Masters Program leads to both a B.A. in Mathematics and either an M.A. in Mathematics or an M.S. in Applied Mathematics. It allows highly motivated and successful students to experience graduate-level coursework earlier in their education than would otherwise be possible, and also allows them to obtain a Masters degree in a reduced time period. Students are allowed to count six hours of graduate-level Mathematics Department coursework towards both their undergraduate and graduate degree requirements.

**Admission to the Program:** The earliest admission to the program is after the successful completion of at least total 45 credit hours and a minimum of two upper division courses from the Department of Mathematics. Students must have at least one year of coursework remaining towards the completion of their undergraduate degree in order to be admitted to the program. Students admitted to the program may not pursue a double degree or a double major; however, outside minors are allowed.

Applicants must:

- have a cumulative G.P.A in MATH courses of 3.500 or higher and an overall G.P.A. of 3.300 or higher.
- have completed all MAPS requirements prior to admission to the program.
- have an approved plan for completion of all Core requirements before the Spring semester of their final undergraduate year (penultimate year in the program).
- complete an application form, available in Math 260.
- provide two letters of recommendation from CU Boulder Department of Mathematics graduate faculty (letters of recommendation from other faculty must first be approved by the Department of Mathematics Associate Chair for Graduate Studies).

GRE exams are not required for admission to the Concurrent Bachelors/Masters Program.

Deadlines for application are March 1st and November 1st each year for admission to the program the following semester.

**Continuation in the Program:** Students must maintain a Math G.P.A. of 3.500 or higher and an overall G.P.A. of 3.300 or higher to continue in the program. Students must complete three hours of graduate MATH credit by the end of the Fall semester of their final undergraduate year (penultimate year in the program), and must complete nine hours of graduate credit by the end of the Spring semester of their final undergraduate year (penultimate year in the program). Students in the program must be full-time and continuously enrolled at CU Boulder.

**Curriculum:** Students in the program must complete all requirements for the B.A. in Mathematics by the end of their final undergraduate year (penultimate year in the program). All requirements for the M.A. or M.S. must then be completed by the end of the final year in the program. Students in the Concurrent Bachelors/Masters Program are assumed to be following the non-thesis option for either the M.A. or M.S. degree.

Please see the back of this sheet for the general M.A. and M.S. degree requirements.

**REQUIREMENTS FOR THE  
MASTER OF ARTS DEGREE IN MATHEMATICS  
Non-Thesis Option**

The student should select a member of the Graduate Faculty to serve as advisor, and together they should develop a degree plan. If the student has no preferred choice of advisor, then any member of the graduate committee can serve that role.

30 hours of approved graduate credit are required, as is a grade point average of 3.000 or higher in these 30 hours. Two courses that are two-semester sequences in mathematics should be included in these 30 hours. No more than 6 hours of graduate seminars or independent study can be used as part of this 30-hour requirement for the M.A. degree.

Together with the advisor, the student should decide on a relatively specific topic to prepare. The student will give a 50 minute presentation on that topic to a committee, including the advisor and two other graduate faculty members, and will answer questions on the topic being presented.

**REQUIREMENTS FOR THE  
MASTER OF SCIENCE DEGREE IN APPLIED MATHEMATICS  
Non-Thesis Option**

The student should select a member of the Graduate Faculty to serve as advisor, and together they should develop a degree plan. If the student has no preferred choice of advisor, then any member of the graduate committee can serve that role.

30 hours of approved graduate credit are required, as is a grade point average of 3.000 or higher in these 30 hours. At least 18 of these hours must be obtained through graduate mathematics courses. No more than 6 hours of graduate seminars or independent study can be used as part of this 30-hour requirement for the M.S. degree.

To earn an M.S. Degree in Applied Mathematics from the Mathematics Department, a student must meet the following additional requirements:

1. The 18 hours in the Department of Mathematics must include 2 two-semester sequences, one of which must be MATH 5600-5610, Numerical Analysis.
2. Of the 30 hours of graduate work, at least 6 hours must come from an area of application of mathematics, e.g. Physics, Biology, Economics, etc. The advisor must approve the outside area and courses. The student may count up to 12 hours of courses in such an outside area towards the required 30 hours. These courses must include a full-year sequence in the area of application.
3. The student must pass a written or oral Master's examination, which will be prepared by the Graduate Committee in consultation with the student's advisor.