The Mathematics Colloquium Credit requirement

1. Attendance. Each mathematics major will document his/her attendance at 10 colloquia in an individual notebook that is obtained and stored in the Math Office. Suitable events for completing this part of the requirement are traditional Math colloquia at K and selected events elsewhere. The reason for this part of the requirement is to ensure that each math student will make the acquaintance of mathematics and mathematicians that aren’t available in any other venue at K.

Participation in any of the following annual Math competitions count as one MC2 credit: The Michigan Autumn Take Home (M.A.T.H) Challenge in October, The William Lowell Putnam Mathematical Competition in December, and the Lower Michigan Mathematics Competition in April. See Dr. Barth for more details on signing up for those events.

2. Reflection. Each mathematics major will complete 3 MC2 written reflections---an essay or presentation in which she/he will describe significant personal experience of mathematics. Each written work will include clear and effective prose, together with correctly type-set mathematical symbolism. Examples are

- An integrative essay on connections between the topics of several colloquia, including background material that may not have been explicit in the colloquia themselves. In this type of essay, material from the student’s MC2 notebook will be organized, augmented and made into a systematic whole.
- An exposition of a problem and its solution from a mathematics competition or Putnam exam in which the student participated. This may be a problem whose solution was found by the student after the fact. The essay will provide some background material not explicitly present in the original problem.
- A research report describing the student’s work completed during an externship, REU program, etc that is not part of the SIP.
- An essay describing the mathematical and social networking at a mathematics conference the student has attended.
- A reflective essay on some of the ways that a Service Learning project in Mathematics has affected how the student thinks about
the role that mathematics plays in society, the mission of the college, etc.

• A thorough review of a single book or a set of related books from the popular mathematics literature. The essay will include both historical and technical material.

• A mathematics talk carefully prepared in an acceptable style and delivered to an audience at K or at a student research conference, in which the student describes work done during an REU or externship.

Each student essay will be no less than two LaTeX pages and each student talk will be no less than 15 minutes.

At the time a student declares her/his math major, a member of the math faculty (likely the student’s advisor) will assume responsibility for supporting the student’s completion of the $MC^2$ requirement. The $MC^2$ mentor will help with LaTeX, establish a timetable of due dates for $MC^2$ written reflections, and read drafts. The $MC^2$ mentor will approve the topic of each written reflection in advance. During the yearly departmental faculty discussion of senior comp grades and departmental honors, each senior’s $MC^2$ mentor will summarize the student’s progress as a mathematician and writer as represented by the $MC^2$ written reflections. Excellence in the $MC^2$ written reflections will become one factor in the awarding of department honors.