

**Discovering the Art of Mathematics:**  
**Inquiry-Based Learning in Mathematics for Liberal Arts**

**Abstract**

**1 August, 2012**

This project helps complete Discovering the Art of Mathematics, a library of 10 full-length, stand-alone learning guides for Mathematics for Liberal Arts (MLA) and other cognate audiences. Each volume provides curriculum materials sufficient for a semester-long course. The pedagogy is a form of inquiry-based learning that is a descendent of the Socratic dialogue. The mathematical content is both sophisticated and accessible, with deep and natural connections to the arts, history, culture, philosophy, humanism, and literature throughout.

During Phase 1, these unique curriculum materials sparked considerable learning gains and affective benefits in the cohort of over 1,000 students who used the materials. In addition to the completion of the materials, Type 2 work will support the development of teacher resource guides, assessment materials, and resources for the expanded use of inquiry in general education mathematics courses. It will also support 9 traveling professional development workshops which will help develop communities of inquiry-based learning practitioners from the generally under-supported cohort of teachers that most often teach MLA. It will also support the creation and implementation of assessment tools which further evaluate the student learning gains and affective benefits. Finally, it supports the high-profile, nationwide dissemination of the Discovering the Art of Mathematics library and the scholarly work it generates, helping to transform the way MLA is taught and learned.