**Award Abstract #0942186**

**Common Sense: Quantitative Reasoning in the Undergraduate Curriculum**

**NSF Org:** DUE Division of Undergraduate Education

**Initial Amendment Date:** February 25, 2010

**Latest Amendment Date:** February 25, 2010

**Award Number:** 0942186

**Award Instrument:** Standard Grant

**Program Manager:** Richard A. Alo

DUE Division of Undergraduate Education

EHR Directorate for Education & Human Resources

**Start Date:** March 1, 2010

**Expires:** February 29, 2012 (Estimated)

**Awarded Amount to Date:** $190,778

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**NSF Program(s):**

CCLI-Type 1 (Exploratory),

S-STEM:SCHLR SCI TECH ENG&MATH

**Field Application(s):** 0116000 Human Subjects

**Program Reference Code(s):** SMET, 9178

**Program Element Code(s):** 7494, 1536

**ABSTRACT**

**Mathematical Sciences (21)**

This project is developing, assessing, and disseminating materials for teaching a quantitative reasoning course. In contrast with many similar courses, which cover a set of mathematical topics using relevant examples, this course is being driven by complex stories about, for example, inflation, fuel economy, and paying off debt. Students are developing quantitative,
common sense approaches to examine the issues of interest, and instructors review relevant mathematical material as necessary. Spreadsheets are being used as a tool for investigation and computation. Materials being developed include a textbook, homework problems and solutions, model spreadsheets, and supplements for both students and faculty. Course materials are designed to incorporate best practices in teaching. The project is evaluating the ability of the course to change, in the long term, the way students approach quantitative data. Dissemination plans include faculty development workshops for prospective instructors of the new course. Overall, the project is seeking to develop students' willingness and ability to assess numerical evidence in order to make informed decisions. It has the potential to impact a wide variety of students enrolling in general education mathematics courses.

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