

INTRODUCTION

In a Nutshell

This site is a public depository for **applications/projects** that can be used in core **mathematics and mathematics education** courses taught at Illinois State University (ISU), which should also have universal appeal. There are ready-to-use examples, as well as conventional references and links to electronic sources.

For accreditation purposes, future secondary mathematics teachers graduating from ISU have to produce portfolios to prove that they have gained knowledge in the real-world applications of the key mathematics courses by completing certain projects. Only exam/quiz work will not adequately cover the NCATE indicators mentioned below.

The Mathematics faculty at ISU, especially new hires and visiting faculty, will have a valuable site that summarizes the need for the indicators and how these needs can be addressed with the collective resources of the whole department, and indeed of many outside sources. Many new faculty members arrive days before the semester starts and barely have time to prepare a generic syllabus.

Besides the obvious accreditation needs, providing real-life applications and emphasizing the relevance of abstract courses is a great way to enhance the quality of teaching and arouse student interest. Secondary mathematics education nationwide will be enriched by our graduates who incorporate similar projects into their teaching, and by instructors of future educators elsewhere who will be inspired by the new website.

About NCTM and NCATE

The National Council of Teachers of Mathematics (NCTM) is the world's largest organization dedicated to improving the teaching of mathematics. The National Council for Accreditation of Teacher Education (NCATE) is a national accrediting body for schools, colleges, and departments of education, authorized by the U.S. Department of Education. NCATE determines which schools, colleges, and departments of education meet rigorous national standards in preparing teachers and other school specialists for the classroom. The *NCATE/NCTM Program Standards for Initial Preparation of Mathematics Teachers (2003)* in particular lists new standards for secondary mathematics teachers, which affects the teaching of several mathematics courses at ISU. See

<http://www.nctm.org/>

<http://www.ncate.org/>

http://www.nctm.org/uploadedFiles/Math_Standards/NCTMSECONStandards.pdf