

The University Senate of Michigan Technological University

PROPOSAL 35-04

BS PROGRAM IN MATHEMATICAL SCIENCES, CONCENTRATION IN EDUCATION PREPARATION

Introduction

The BS in Mathematical Sciences, Concentration in Education Preparation is being established for students who are not interested in pursuing Michigan Secondary Teaching Certification, but who may be interested in alternative teaching opportunities, such as teaching in a program designed to recruit teachers to schools of need, or teaching in a community college. Students completing this concentration will not be eligible for Michigan Teacher Certification without additional course work.

Related Programs

This Concentration differs from the Secondary Education Concentration offered by Michigan Tech's Department of Education, in that additional certification course work is not required. This Concentration was previously submitted by the Mathematical Sciences Department and approved in the transition to semesters, but was mistakenly merged into the Secondary Education Concentration. The Mathematical Sciences Department handles the courses, paperwork and advising for the Education Preparation concentration; the Department of Education handles the courses, paperwork, and all advising issues (including a teaching minor) for the Secondary Education concentration.

Rationale

This Concentration differs from the Secondary Education Concentration in that we chose not to layer certification requirements onto the graduation requirements. Previously, under the quarter system, students could graduate under any math option and still seek certification by various means. Many students want to obtain certification after graduation, such as in an M.A.T. program or a special program where they teach and earn certification on the job, so this concentration is appropriate for them. Other students who are forced to leave MTU for personal (non-academic) reasons before completing the requirements for certification, would also benefit from this concentration, as well as those who plan to teach at a community college.

Curriculum Design

Some of the courses in the concentration include exposure and experience with a variety of pedagogical methods, technology, and content for future teachers. Two of our faculty have Michigan Certificates in Secondary Education and conduct research in that field. The concentration consists of:

MA1910 Exploring Symmetry Groups	(3 credits)
MA3924 College Geometry with Technology	(3 credits)
MA4908 Theory of Numbers with Technology	(3 credits)
MA4945 History of Mathematics	(3 credits)
400-level Math Electives	(6 credits)

New Course Descriptions

No new courses required.

New Resources Required

None

Accreditation Requirements

None

Planned Implementation Date

Fall 2004

Adopted by Senate: 7 April 2004

Approved by President: 22 April 2004