

AMENDMENT TO THE ESTABLISHMENT OF A GRADUATE CERTIFICATE IN ELEMENTARY MATHEMATICS SPECIALIST: ADVANCED

Recommendation

It is recommended that the Board of Governors establish a Graduate Certificate in Elementary Mathematics Specialist: Advanced (GCEMS-Adv), effective Spring-Summer 2017.

Background

Elementary mathematics specialists have been proposed nationally as an important lever for improving mathematics instruction and achievement in schools. Many have made the case that practicing elementary school teachers are not adequately prepared to meet the demands for increasing student achievement in mathematics (National Council of Teachers of Mathematics, 2000; National Mathematics Advisory Panel, 2008; National Research Council, 1989). In particular, most elementary teachers are generalists—that is, they study and teach all core subjects, rarely developing in-depth knowledge and expertise with regard to teaching elementary mathematics. Elementary math specialists would be able to support teachers at their school sites in diverse roles such as lead teachers, curriculum specialists, and coaches.

Although Michigan is one of 18 states that recognize the elementary mathematics specialist designation, there are currently no universities in Michigan that offer such a Graduate Certificate program. The Michigan Department of Education offers teachers the addition of a middle school mathematics endorsement to their teaching certificate to address this need, but this option is not available to most teachers in the field who are asked to serve as mathematics specialists or lead teachers since they are no longer at the university having already received their teaching certificates. At present, these roles are frequently filled by teachers who have received no specialized training to do this work. This Graduate Certificate program would be accessible to these teachers and is designed specifically for the needs of teacher leaders, coaches, and instructional specialists. The Graduate Certificate program would also be open to new graduates of elementary teacher credential programs.

Program Description

The GCEMS-Adv prepares candidates to be curriculum specialists, teacher leaders, or coaches who are responsible for supporting effective mathematics instruction and student learning at the classroom, school, district, or state levels. The program will provide professionals with a deep and broad knowledge of mathematics content and pedagogy.

Admission Requirements

Applicants must have completed the Graduate Certificate in Elementary Mathematics Specialist: Introductory, hold an elementary teaching certificate and must meet requirements for admission to the Graduate School.

Curriculum Requirements

A total of 12 credit hours is required for the GCEMS-Adv, including MAE 7400, an additional MAE course not previously completed, and one course from CED, EDA or IT. Course selections are made from the following courses in consultation with a program advisor and are tailored to the student's background and school needs. No transfer credit will be accepted for a certificate

Submitted by: Keith E. Whitfield, Provost

program and no more than nine semester credits taken in this classification may be applied toward a graduate degree, subject to the approval of the relevant academic unit and graduate office.

Graduation Requirements

All coursework must be completed in accordance with Graduate School and the regulations governing graduate scholarship and degrees. Students may enroll on a full-time or part-time basis but must complete requirements within three years of admission.

Program Administration

The GCEMS-Adv will be administered by the Assistant Dean of Teacher Education and the mathematics education program area faculty will oversee admission, advising, and program evaluation.

Budget and Resource Requirements

None. This program will use existing courses taught by existing faculty.

Accreditation

There is no accreditation available for the program.

Approvals

The proposal was approved by the Faculty and the Assistant Dean of the Teacher Education Division, the Faculty and Dean of the College of Education, Dean of the Graduate School, and the Office of the Provost.