

## **ESTABLISHMENT OF A GRADUATE CERTIFICATE IN ELEMENTARY MATHEMATICS SPECIALIST: INTRODUCTORY**

### **Recommendation**

It is recommended that the Board of Governors establish a Graduate Certificate in Elementary Mathematics Specialist: Introductory (GCEMS-Intro) 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-Intro prepares candidates to be instructional specialists who are responsible for supporting effective mathematics instruction and student learning at the classroom or school level. This program will provide teachers with enhanced knowledge of mathematics content, expertise in using and helping others use effective practices, and the ability to support efforts that help all students learn mathematics in school settings.

### **Admission Requirements**

Applicants must 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-Intro, including the two required courses and at least one course at the 7000 level or higher. Course selections are made from the

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Mathematics Education (MAE) 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 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 six years of admission.

### **Program Administration**

The GCEMS-Intro 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**

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.