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SUPPLEMENTAL INSTRUCTION FOR PRE-CALCULUS. CROSS INSTITUTIONAL IMPLEMENTATION.

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Supplemental Instruction for Pre-Calculus. Cross Institutional Implementation.

Pre-Calculus / Mathematics Education

Synopsis:

The Mathematics Departments of El Paso Community College (EPCC) and University of Texas at El Paso (UTEP) have a long tradition of close cooperation. We will report on a joined initiative, supported by the Department of Education, to integrate mandatory Supplemental Instruction into EPCC's Precalculus courses. Graduate students from UTEP served as leaders for this Supplemental Instruction component. Our poster will introduce the concept of mandatory Supplemental Instruction in Precalculus courses at EPCC.

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Abstract

El Paso Community College (EPCC) is one of the largest Hispanic-serving community college in the United States. At the same time, EPCC and the University of Texas at El Paso (UTEP) are de facto the only institutions of higher education within reach for a growing population of local students, the overwhelming majority of whom are Hispanic. Due to this constellation, the Mathematics departments of both institutions have a long tradition of close cooperation.

We will report on a cooperative project, supported by the Department of Education, to integrate mandatory Supplemental Instruction (SI) sessions into EPCC's Pre-Calculus courses. The idea of the program is to give students the opportunity to supplement the lecture given by their professors, to get a deeper understanding and additional practice in the concepts introduced in the classroom, and to get help from fellow students without feeling intimidated by their professors or classmates. The instructional mode was changed from the traditional lecture to a new format of lecture with an additional hour of regularly peer-facilitated sessions called Supplemental Instruction (SI) labs. Graduate students from the Department of Mathematical Sciences at UTEP are serving as SI leaders for this Supplemental Instruction component at EPCC. A large portion of these graduate students started their academic career at EPCC and will therefore be able to act as role models for their EPCC peers. Our poster will introduce in detail the concept and practice of mandatory Supplemental Instruction in Pre-Calculus I and II courses. Providing students with Supplemental Instruction to improve student success and satisfaction, has the potential to have a significant impact in overall STEM student retention and student attraction to STEM major disciplines, and thus ultimately lead to a substantial increase in the number of baccalaureate degrees conferred in STEM disciplines. We will introduce the concept of mandatory Supplemental Instruction in Pre-Calculus courses at EPCC and we will present the main project assessment data.