

Cross Institutional Implementation of Supplemental Instruction (SI)

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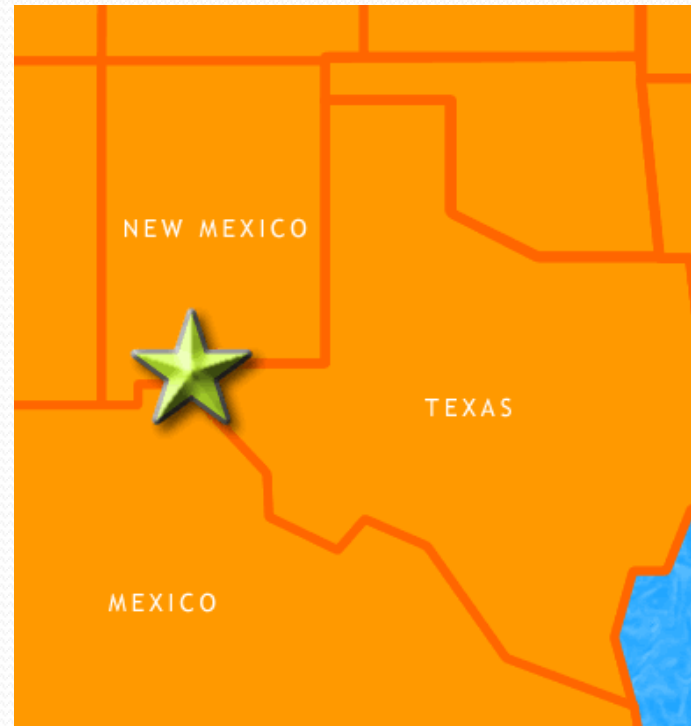
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EPCC Student Population Profile

EPCC is the second largest Hispanic-serving community college in the nation.

- More than 24 000 credit students
- 88% Hispanic
- 60% female
- 61% part-time students

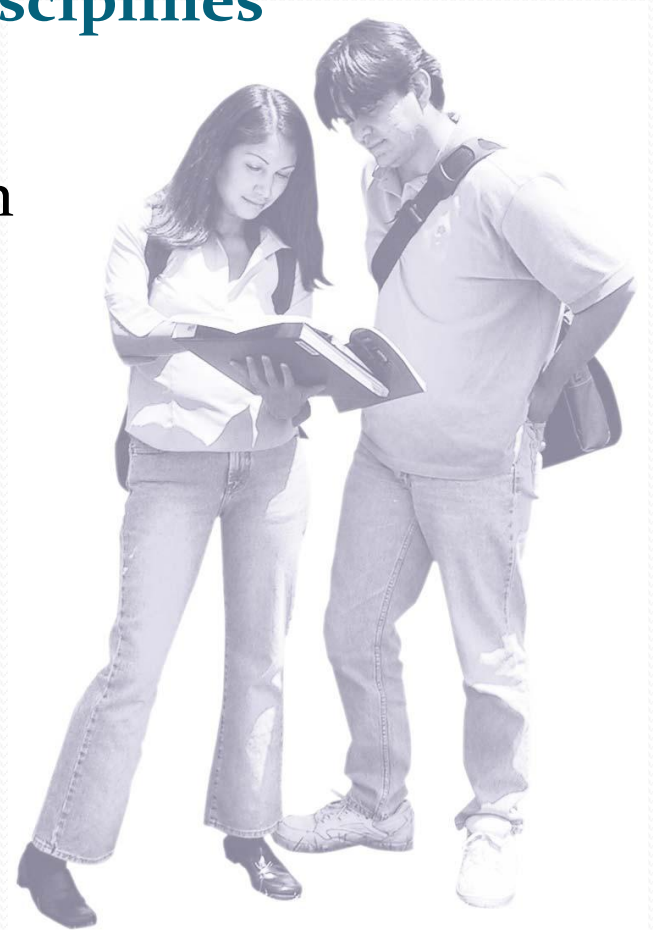


Main Challenge

Incoming students are not well-prepared for studying STEM disciplines

The two Precalculus courses often serve as roadblocks for incoming students:

- Low pass rates
- High drop rates





We currently have funding from the U.S. Dept. of Education (MSEIP program) to provide students in Precalculus I and II with **Supplemental Instruction (SI)**, to enhance student achievement in high-risk courses through collaborative learning techniques.

The main focus of our project is to enrich the learning experience in these two courses by adding mandatory **Supplemental Instruction** as an integral part of the courses, led by UTEP graduate students.



The new delivery format includes more Peer-led Learning:

Precalculus I

Three hours lecture
per week
One section
30-35 students

+

One hours Supplemental
Instruction per week;
Three sections with
10-12 students each

Precalculus II

Four hours lecture
per week
One section
30-35 students

+

One hours Supplemental
Instruction per week;
Three sections with
10-12 students each

Supplemental Instruction (SI)

What is SI?


- **SI** targets high-risk courses instead of high-risk students.
- **SI** is mandatory for all students in the class; it is integral to the course.
- **SI** is active learning in small size sections, group-based, led by an SI leader; it is not an additional lecture, a study- group, or tutoring.
- **SI** is dynamic, interactive, argumentative and engaging.
- **SI** begins in the first week of class before students encounter academic problems.


What are SI leaders?

- **SI leaders** are graduate students from UTEP, extensively trained to help students learn the mathematics in the course.
- **SI leaders** attend classes together with their students, read assigned materials, take class notes, and conduct regularly scheduled SI sessions.
- **SI leaders**, rather than acting as lecturers or teachers, facilitate and encourage the student group to process material and solve mathematical problems.

Description of the SI Program

- The SI program is implemented in Precalculus I+II courses and is designed to help students succeed in these difficult academic courses.
- These are courses that have been identified with a significant rate of D and F grades as well as withdrawals.
- SI targets “high risk” courses, not “at risk” students.
- SI assistance is provided in one hour lab sessions with small groups of students, and it is not a class review session.

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- SI leaders are graduate students who have successfully completed the course. Their academic ability is reflected in their G.P.A.; they have demonstrated understanding of effective study strategies and behaviors. SI leaders are assigned to two/three courses and they are teaching 6 hours of labs /week.
 - SI leaders attend all class sessions, take notes, read assigned material, and model effective in-class behavior.
 - SI leaders are trained. They are required to attend regular training each semester and are observed and evaluated throughout each semester.


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- SI leaders use collaborative teaching techniques to involve students in discussing, exploring, and understanding course material. They demonstrate, model, and involve students in practicing effective study strategies. They may also use *Webassign* during lab sessions.
 - SI sessions help professors maintain high standards and expectations for a course, especially in situations where class size prevents a professor from giving personal attention to individual students.

SI Leaders (Fall 2009)

- **NW Campus:** Persis Beaven & Oscar Macedo
- **RG Campus:** Olivia Baciou, Alexandra Bogdan & Oscar Macedo
- **TM Campus:** Tami Dashley, Melissa Pugh & Jessica Reyes

Differences between SI and other forms of Academic Support

- **SI Leaders attend class lectures** to ensure understanding of course material, to maintain communication with the course professor, and to model effective student behavior.
- **SI Leaders involve students actively in learning course material** through group discussion, problem solving, practice tests, creating and completing study guides, and other active learning techniques. SI sessions are not just Q&A test reviews where students are typically more passive.

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- **SI Leaders demonstrate effective study strategies** and engage students in practicing note-taking, anticipating test questions, and foster vocabulary development and memory aids. This helps students develop deeper levels of thinking and reasoning skills.
 - **SI Leaders and the SI program are evaluated each semester** to maintain program quality and assess outcomes of SI on course grades and student retention.


Benefits of the SI Program

Benefits to Students

- SI is an efficient, effective use of a student's available time to study.
- Students have access to study assistance from a peer who has done well in the course and with whom they may feel more comfortable than the course professor. Thus, students who may not seek assistance from their professor still have a source for assistance to do well in the class.

Benefits to EPCC

- SI supports faculty who teach Precalculus I+II courses that are often too large to allow personal attention to students. SI leaders help the professor maintain higher academic standards and expectations for their students.
- SI attendance raises the academic performance of students, which reduces course withdrawal and failure rates.

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- Students benefit from reviewing material with other students and developing study partnerships that can be maintained beyond the completion of the class.
 - Professors whose courses include SI are particularly aware of students' needs and work closely with the SI leader to help students succeed in the course.
 - SI provides support to students in pre-major core classes, which promotes increased passing grades. Improved course grades promote entry and retention rates in college major programs.
 - SI sessions provide for more in-depth exploration of course material for which there may not be sufficient time in class.

SI Leader Specific Responsibilities

Time Commitment: 20 hours per week

- 6 Hours - Teach Labs
- 6 Hours – Attend lecture and discussions/meetings with the instructor
- 5 Hours - Preparation /grading lab quizzes
- 2 Hours - Office Hours
- 1 Hour – Meeting with Project Directors

Responsibilities in Class


- Take thorough notes of all lectures.
- Communicate with the professor about SI sessions, as needed.


Responsibilities for Planning

- Prepare organized, effective SI sessions.
- Incorporate collaborative and active learning techniques.
- Create study materials to aid students in learning course material.

Responsibilities During SI Sessions

- Create a comfortable learning environment during SI sessions.
- Ensure students actively participate in the learning process.
- Incorporate study skills such as textbook reading, note taking, and test preparation and test taking skills.
- Use a variety of teaching methods.
- Implement ideas learned during SI training.
- Take roll during each SI session.

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- Administer quizzes during SI sessions, and maintain an accurate grade record.
 - Use *Webassign* during lab sessions, if needed.
 - Plan the SI sessions according to the need of each particular group of students.
 - Follow instructions from the instructor about the type of assignments you should give/work with the students.



**Thank You
and
Have a Great Semester!**

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