

Singapore Mathematics Summer Content Institute: Geometry and Measurement
Worcester State College
July 19-23, 2010 9:00 AM – 4:00 PM

Students in Singapore have the highest mathematics scores at the 4th and 8th grade levels in the latest Trends in International Mathematics and Science Study (TIMSS). The National Math Panel called Singapore a “world leader in mathematics achievement”. Part of the reason is the approach taken in their elementary and middle school math textbooks. As the preface to *New Elementary Mathematics, Syllabus D* states, “Throughout the textbook series, emphasis is placed on the development of better understanding of mathematical concepts and their applications, as well as on proficiency in problem solving, mathematical reasoning, and higher order thinking.” The curriculum is consistent with the new NCTM focal points.

The primary goal of this institute is to deepen your understanding of the math you teach, regardless of whether you plan to use these books as your primary texts. Strengthening your understanding will help you become more effective as a teacher. The course will focus on presenting mathematically valid yet grade appropriate explanations for many fundamental elementary results in geometry and measurement. Key topics include derivation of angle facts, use of angle facts to solve unknown angle problems, geometric construction with compass and straightedge, congruence and basic proof, the Pythagorean Theorem with applications, similar triangles with applications, and the derivation of area, surface area, and volume formulas. Each day will consist of a combination of lecture and group work. The program will provide a supportive, yet challenging environment for professionals working together.

While this course is a follow up to the Singapore Mathematics Summer Content Institute on Number and Operations, students can register for this course without having taken the Number and Operations course. The instructor is Professor Mike Winders, who has worked extensively with K-8 teachers over the past few years. This course is roughly modeled on the Geometry and Measurement for Teachers course which is required for pre-service teachers at Worcester State College, which is a course Professor Winders has taught several times.

Participants will receive the Parker/Baldrige textbook “Elementary Geometry for Teachers” and copies of the 3B, 4A, 5A, 5B, and 6B Singapore student texts, as well as a copy of “New Elementary Mathematics, Syllabus D”, which is the textbook used in Singapore in seventh grade. The program cost also includes a continental breakfast and lunch each day. Rooms in suites in our new residence hall are available for an additional fee of \$25 per night plus a linen fee. All suites have their own bathrooms and showers.

The cost for the five day program is \$725.00 if you register by May 30 and \$825.00 if you register between May 30 and June 30. The deadline for registration is June 30. The registration form is attached, and any questions may be directed to Marie Velez at 508-929-8912 or mvelez@worcester.edu.

***Note:** We have space for a maximum of 24 participants. The program will only run if there are at least 15 participants.



**OFFICE OF RESIDENCE LIFE AND HOUSING
CONFERENCE HOUSING REQUEST
Summer 2010**

Last Name: _____ First Name: _____

Permanent Mailing Address: _____ P.O. Box: _____
Street

_____ City _____ State _____ Zip Code

Home Telephone #: _____ Alternative # (Cell): _____

I am requesting to stay on campus for the following workshop: **Singapore Mathematics
Summer Content Institute (Geometry and Measurement): July 19-23 2010**

Please check the following nights that you will be staying: **S** **M** **T** **W** **TH**

The total housing cost for Sunday, July 18 – Thursday, July 22 is **\$145.00**. This price includes linens and towels for the week. (\$25/per night plus \$20 linen fee)

Most rooms are part of suites containing two singles and two doubles.

I prefer a single room _____ a double room _____

I would like to room with the following person(s): _____

Any additional information or requests:

Applicant Signature

Date