



Mathematics in the Desert

By Jill Perkins

As the moon lights the sky, Russ Walker walks across a quiet Carnegie Mellon campus with paint and brushes in hand. Walker and some students are about to give the Fence a new face. Their mission is to spice up the campus with a taste of the Middle East. Once finished, the fence has been transformed into a giant Qatari Flag, and Walker is on the go. With barely enough time to clean the paint from his hands, Walker hops a plane to Doha, Qatar where he will spend four weeks teaching Introduction to Calculus for the Summer College Preview Program on Carnegie Mellon's Qatar campus.

Walker, teaching professor, former associate department head and undergraduate advisor for the Department of Mathematical Sciences, made his maiden voyage to Doha in 2004 to help launch the new Carnegie Mellon campus. Walker also developed the math assessment that determines math competency for Qatari students who haven't taken the SAT or ACT. He returns to Doha occasionally to teach calculus and elementary functions, and encourages students from the Pittsburgh campus to seize the opportunity to study in Qatar.

With a 14-hour plane ride separating Pittsburgh from Doha, visiting students might expect a major culture shock. Despite the change of scenery and climate, Walker finds Qatar surprisingly familiar. The campus is like "a big extended family," says Walker, whose experiences in Qatar prove that at the core, students are essentially the same in any country. For many, regardless of what country they're in, grasping complex mathematical concepts isn't easy. Walker's active approach to teaching makes math classes enjoyable and engaging. In his classroom, students participate in interactive experiments, like recording the position of a basketball to recreate Galileo's experiment.

"Before taking Professor Walker's class, I liked math but I wasn't very interested in it," says senior computer science major Hatem Alismail, a student at the Qatar campus. "After taking his

class, I've decided to minor in math. He certainly changed the way I think about mathematics and how we can use it and apply it in the real world, which is very influential."

When he's not in the classroom, Walker soaks up the local



Russ Walker and his calculus class in Qatar. Above: Russ Walker and his son in Petra, Jordan.

culture. Whether it's blazing through the desert in a car at 140 kilometers in pursuit of ancient ruins, or riding camels in Egypt, Walker enjoys the opportunities he can't get in the States, especially relishing the chance to share them with his family. Walker shared a real-life Indiana Jones experience with his son as they explored the Siq in Petra, Jordan on a pair of camels.

Recently, Carnegie Mellon graduated its first class in Qatar, and Walker was there to witness it. "Standing while the Star Spangled Banner was played at commencement, I had the feeling that I was a part of something that reached beyond the university, beyond my discipline of mathematics — an endeavor that allowed me to contribute positively as an American in a very tricky part of the world," says Walker.