

CETI 2008

Final Report

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Carolyn teaching Aerospace Engineering



Example of Yi Huang's calligraphy taught Kunming.



The “Awesome” moment



Physical demonstration activities in Kunming.

Introduction

During the summer of 2008, we went to China with the MIT China Educational Technology-Initiative (CETI). We spent several weeks in Yunnan province teaching at Oxbridge College, Kunming University of Science & Technology.

Leonardo Urbina-Mathematics

I planned a curriculum on select topics in mathematics. The three main areas were Inequalities, Game Theory and Geometry. At Kunming University most of the students attending my class pursued majors unrelated with the sciences, however they all had significant exposure to mathematics while at high school. The main difficulty teaching the course was not the mathematical complexity of the concepts introduced. Rather, it was the technical language that these topics required that made it very hard for the Chinese students to follow due to various levels of English proficiencies. The best method in order to help the students keep up with the technical terms was to write as much as I could into the blackboard, and show many examples and applications of each concept introduced. The students had some good feedback on the topics, they mastered some special techniques on solving inequalities, and got familiarized with the basics of game theory. Due to time constraints, the Geometry section was not taught.

Carolyn O'Brien-Aerospace Engineering

I taught an introductory course to Aerospace Engineering, based on the Aerodynamics and Materials and Structures lessons from the beginning of Unified (16.001-2). I introduced basic force diagrams, airfoil modeling, and basic fluid dynamics relating to lift and drag. Physical demonstrations proved most helpful in defining technical terms that the students had a difficult time understanding.

Yi Huang-Biology

Since most of the students at KUST had little or no biology background, the first few lectures were focused on basic biology and general terminology. I tried incorporating some games, skits, and competitions into the lectures to not only involve the students, but to also portray certain biological concepts across. Based on the interests of the students, I

went into diseases, more specifically their symptoms and related molecular mechanisms. Some of the diseases covered include cancer, Alzheimer's, AIDS, Mad Cow Disease, and diabetes.

Evaluation of Kunming Oxbridge College

In Kunming, the facilities we had were excellent. The dormitory rooms were singles with a private bathroom. They provided us with a food card, and had two convenience stores right outside the school. The school is located on the edge of the city of Kunming.

For each of the activities, the school provided a student as a contact person. Alice was our school contact person. Kevin Ji is the Vice-President. He was easy to talk with, and his English is excellent. He had lived in Boston for a few years, so he is a good contact person. We had a lot of contact with the faculty, especially the foreign teachers.

Most of our activities were cultural relations. We had calligraphy classes, singing and dancing, and other talks.

We had activities with most departments every week. The economic department took us to a bar (located under Leo's room); the law department took us to a cave. Other times they had us watch an English Oral exam. The CCTV speech team adopted us as assistant coaches. The professor/coach requested that we write speeches on the topic of "1+1=2?" The English department had a free talk called English Corner, 2-3 times a week, sometimes with a topic. Other foreigners sometimes appeared at these events as well.

Most of our students in our individual classes were City Planning and Architecture, with a few students from Computer Science. The English ability of students, especially with technical terms, was somewhat limited. The best practice was to write words down. Most of the interested students wanted to practice English.

On weekends, the school would take us to tourist locations. They gave us student IDs for discounts, and covered our expenses for the activities while we were there. They took us to caves, the Stone Forest, and local sights, and were extremely hospitable with us.