

MIT CETI



Charles Agoos, Tiffany Chen, and Lynne Tye

YuanZe University



Teaching at YZU



The teaching environment at YuanZe University was more than suitable. Class sizes ranged from around 20 to 35 students. English levels and background knowledge of students varied. But overall, we were able to teach what we had planned.

We were also given access to a room designed for problem based learning, similar to TEAL at MIT. The room was more than large enough for any activity we had planned. We also had whiteboards, markers, speakers, and a projector for powerpoint presentations.

TEC, the Teaching Excellence Center at YuanZe University, even provided a staff of TAs to help us in translating or printing out notes and handouts. Overall, TEC provided a truly great teaching environment for us and our students.

YZU Hospitality



Our contacts at YuanZe University took almost every conceivable measure to ensure that our stay was satisfactory. After being picked up at the airport, we were taken to our rooms at the undergraduate dormitories. Our rooms were fitted with airconditioning, and TEC provided us with necessary bedding and toiletries. The department even loaned each of us a computer for the duration of the stay, and Charlie was loaned a cell phone as Tiff already had one. We were also given a library card.

All of our lunches were provided by the university, and we were also given access to the teacher's lounge. The teachers lounge had computers with fast internet, speakers, air conditioning, a projector, and was complete with very nice furniture. Access to the lounge proved invaluable during our stay.

YZU Outside of Class



When we weren't teaching we found that there was much to do while at YZU. The campus is about an hour train ride from the heart of Taipei so it is very easy to enjoy all of the activities the city offers.

Additionally, the students and teaching assistants were always eager to take us out around the university. One weekend TEC even treated the entire teaching staff to a trip to the beach in northern Taiwan. Lynne also found the sizable breakdancing community around the university to be quite fun.

Overall teaching at YZU was a very enjoyable experience. We were all treated graciously by everybody and genuinely thank everybody that helped to make our stay so pleasant. Since TEC produced their own report, attached to our own, I did not attach many pictures from YZU. But more documentation can be found at the camps blog: mit-yzu.blogspot.com.

Fuzhou University



Teaching at FuDa



At Fuzhou University we taught about 30 students. English levels were highly variable. But all of the students were from the department of physics and information technology, so their technical knowledge was more than proficient. Many students were surprised that our teaching focus was, in fact, technical rather than cultural. But, overall, they seemed satisfied by the topics. Also, they had further incentive to take the class since Fuzhou University gave the students elective credit for our course.

Our classroom was actually a meeting room. It was a bit too small for the class, but did have air conditioning. We didn't have a board for the first few days. But they did provide us with a projector. We did not have access to a printer or computer lab.

The class met from 8:30 to 11:00 in the morning, Monday through Friday. There was no afternoon session. Initially we were planning to teach a schedule similar to our schedule in Taiwan. However a few days before arriving in Fuzhou we were informed by Professor Li of the new teaching hours.



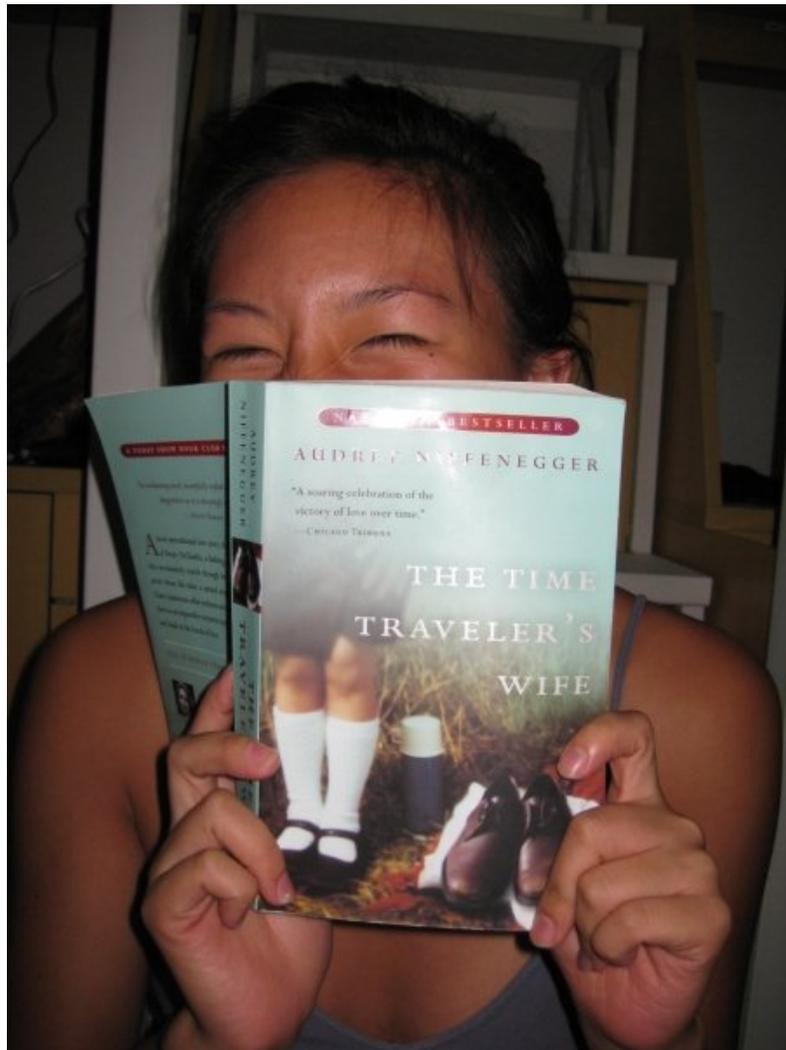
FuDa Hospitality



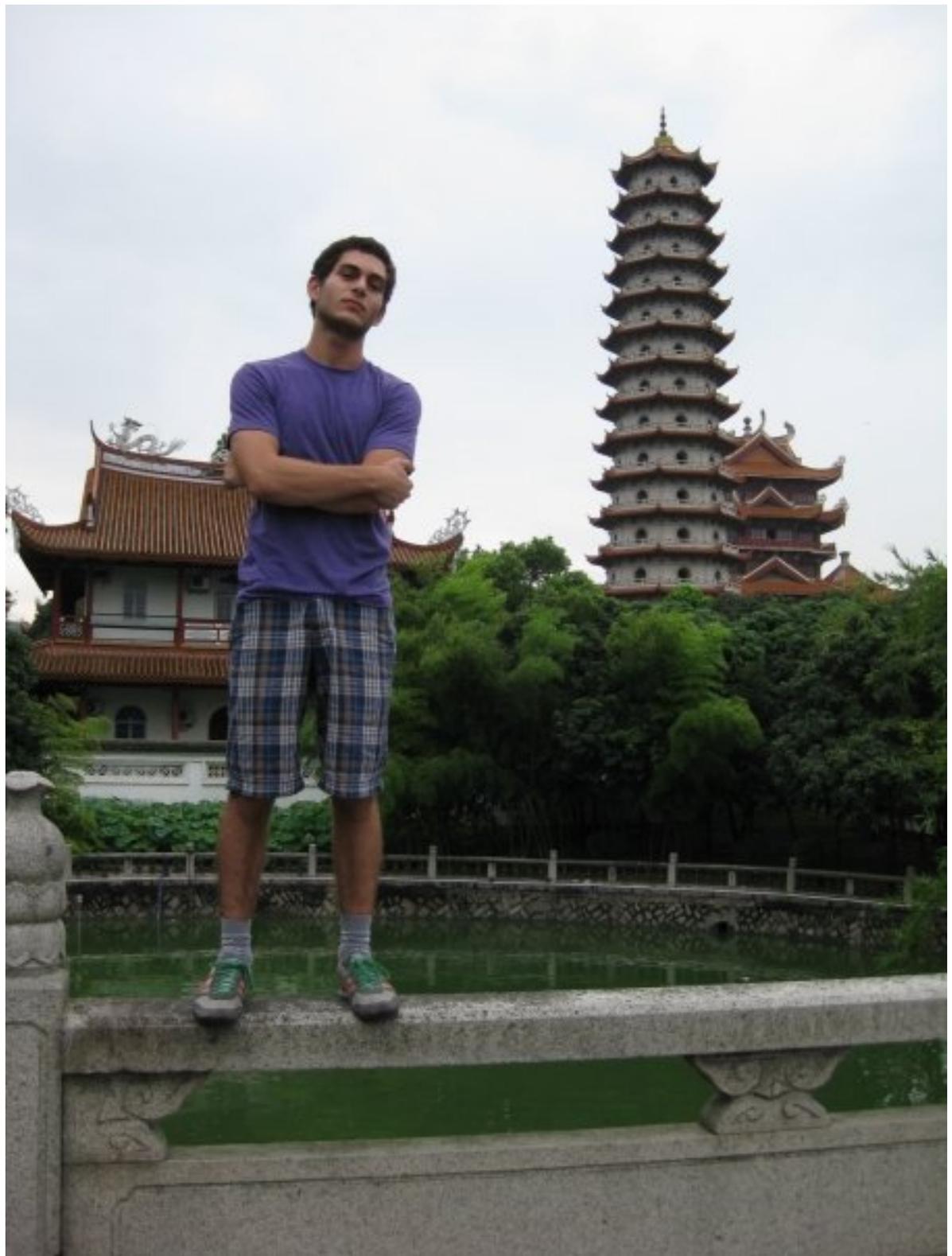
We were met at the airport by one of Professor Li's friends and taken to the dormitories at the Fuzhou University campus where we would be staying. There a few of our students helped us into our rooms. The rooms had air conditioning, although the air conditioning in Charlie's room was broken. The university also provided us with mats and bedding. After a few days, we were also given mattresses that Sean Liu, who had previously worked at Fuzhou University, left for us.

We did not have computers. Since there was no computer lab for us to use, we ended up borrowing laptops from a few of our students. The university also gave us complimentary meals at the cafeteria.

FuDa Outside of Class



We went into the city a few times with our students. Unfortunately, a typhoon hit the region during our stay so we weren't able to venture out around Fuzhou very much. But the adventures we did have with our students were memorable.





FuDa Student Surveys

We asked the students to evaluate the camp on a **1-7** scale. Here are the mean responses:

1. Your satisfaction with curriculum topics and content.

6.45

2. Your satisfaction with the lecturers' instructional skills.

a. Overall

6.5

b. Charlie

6.75

c. Lynne

6.75

d. Tiff

6.45

3. Your satisfaction with the schedule.

6.25

4. Helpfulness of this camp for your studies.

6.15

5. Overall feelings about the camp.

6.65

Personal Reflections

This was the second summer I spent doing CETI. The first time was so rewarding and such a growing experience that I had to come back for more! I am really lucky to have been matched with these teammates and schools. During our time at YZU, I felt tremendous hospitality. I felt a genuine cultural exchange in Taiwan and everybody seemed so open and excited to participate in our program. I felt similarly in Fuzhou. Realistically this was CETI's first year at Fuzhou University, and some things could probably be improved. But all of the students we taught were so down to earth and made teaching very enjoyable.

I am really grateful that CETI exists and I have been able to participate in it. It has given me an opportunity to share my excitement about science and technology with other students. But it has also allowed me to understand different cultures that I otherwise could not and make connections and deep relationships with people from the other side of the globe. This summer was everything I could have hoped for and more.

Charlie Agoos

Teaching in Taiwan and China was a wonderful experience and I cannot imagine having spent my summer doing anything else. I am currently pursuing a career in academia and what I learned from teaching students at the university level is invaluable and I have to admit, I feel more certain and secure about the direction of my future after this summer.

Aside from the professional aspect, our six weeks in Taiwan and China were also extremely culturally enriching. I am a first generation American-born-Chinese who does not speak any Chinese and I am extremely grateful to have had the opportunity to get in touch with my cultural heritage.

Lynne Tye

Personal Reflections

Taiwan

All the aspects of the YZU camps, ranging from class scheduling to our accommodations, were extremely well-organized, thanks to Nailing and Aminta. I appreciated the effort YZU made in exposing us to Taiwanese culture and experiences and am further grateful for the TAs helping us out with everything ranging from food requests to translations of phrases. The students, while shy at first, were willing to be silly and talkative during lunch breaks, which allowed us to feel very comfortable sharing our experiences with them; in fact, a group of students from our college students even sent us off at the airport despite our early flight!

Fuzhou

Because this was CETI's first year in Fuzhou, many of our activities were experimental, and I was unsure of what was expected of us. The welcome ceremony that was organized for us was much to our surprise, and I had to improvise my curriculum depending on the students' level of English. Because all the students had basic knowledge of signals and systems, I was excited to go more into detail about signal processing. However, more often than not, the students expected me to translate their conversations and questions into English in order to communicate with Charlie and Lynne, which defeated the purpose of having them practice their English speaking skills. Perhaps in the future, students should come into the program expecting to practice their English speaking skills in class. Nevertheless, this was my first time in mainland China, and the experience made me better understand the differences in culture and way of thinking between US and China.

Tiff Chen

Curriculum

For the high school students, we began with a discussion of what the world is made of. We explored various theories and the historical progression of physics to finally conclude that the world is made of waves and particles. From there we began to discuss the beginning of quantum physics, wave-particle duality, and its implications.

For the university students, I began with the same curriculum. After discussing wave-particle duality, the class actually performed Einstein's famous photoelectric effect experiment. From there, the lessons on quantum physics continued with operator algebra, quantum states, wavefunction collapse, and the uncertainty principle.

I also taught a series of cultural lectures related to the American Dream. These lessons incorporated songs, specifically "All Falls Down" by Kanye West. They also included showing the movie, *Breakfast at Tiffany's*. The overall focus was to use cultural differences to help the students think about their own lives and dreams.

-Charlie Agoos

Lynne taught a curriculum centered mainly on neuroscience and cognitive science. She taught about the neural basis of memory, learning, and the senses. She also covered various topics ranging from sleep to serious brain disorders. Additionally, Lynne's cultural curriculum included lessons on American music, customs, and dance.

-Lynne Tye



Curriculum

For the high school sessions, I taught basic digital systems and design. Materials were drawn from 6.004 Computational Structures, covering topics such as the pros and cons of analog and digital, the basics of information, combinational logic, and finite state machines.

For the college students, I taught the same material as for the high school students for the first week, delving more in depth into each topic. During the second week, I gave an overview of biomedical signal processing based on 6.555 Biomedical Signal Processing. Because not all students had a technical background or had knowledge of signals and systems, the overview was more conceptual than technical. Cardiovascular signal processing, such as for electrocardiogram (ECG) and arterial blood pressure, was introduced. An extension to 2D was made with the discussion of basic image processing, and a Matlab demo of medical image registration set the ground to tie image processing and medical applications together. A Matlab tutorial was also given in response to overwhelming requests from students.

-Tiff Chen

Agenda:

1. Review of MY Camp 2009
2. Survey results
3. Feedback from participants
4. Words to MIT
5. Lovely photos

Review of MY Camp 2009

- * **MY Camp= MIT-YZU Camp**
- * **Date: July 6th (Mon.)-31st (Fri.) 10am- 5pm, including two 1-week camps for high school students, and one 2-week camp for university students.**
- * **Fees: Free of charge!** (lunch & travel expenses not covered)
- * **Lecturers:**



Charles Agoos



Lynne Tye



Tiffany Chen

Course Curricula

【Charles】

Physics, Classical Physics, Relativity, Quantum Physics, String Theory,
and Astrophysics

【Tiffany】

Digital signal processing for bio medical applications

6.004 Computation Structures

【Lynne】

Introductory Neuroscience and Psychology

Dance Class

Class Timetable--- High School Camps

時間/Time	Class Timetable/Location
10:10-11:00	Lecture 1 /3310R- PBL Classroom NEW!!
11:00-11:30	Interactive Session-Culture Exchange/ 3310R
11:30-11:40	Break
11:40-12:30	Lecture 2/3310R
12:30-14:10	Lunch (no afternoon sessions on day 5)
14:10-15:00	Lecture 3/3310R
15:00-15:10	Break
15:10-16:00	Interactive Culture Exchange/3310R
16:10-17:00	Day 1(7/6 & 7/13): Campus Tour Day 2(7/7 & 7/14): PE Class Day 3(7/8 & 7/15): Dance Class Day 4(7/9 & 7/16): Dance Class
12:30-14.30	Day 5(7/10 & 7/17) : Closing Ceremony/ 70301R International Student Lounge

Class Timetable--- University Camp

時間/Time	Class Timetable/Location
10:10-11.00	Lecture 1 / 3310R- PBL Classroom NEW!!
11.00-11:30	Interactive Session-Culture Exchange/ 3310R
11:30-11:40	Break
11:40-12:30	Lecture 2/3310R
12:30-14:10	Lunch
14:10-15.00	Lecture 3/3310R
15:00-15:10	Break
15:10-17.00	<p>【 Week 1 】 Day 1(7/20): Interactive Culture Exchange/3310R Day 2(7/21): PE Class Day 3(7/22): Interactive Culture Exchange/3310R Day 4(7/23): PE Class Day 5(7/24): Interactive Culture Exchange/3310R</p> <p>【 Week 2 】 Day 6(7/27): Interactive Culture Exchange/3310R Day 7(7/28): Dance Class Day 8(7/29): Interactive Culture Exchange/3310R Day 9(7/30): Dance Class</p>
12:30-14.30	Day 5(7/31) : Closing Ceremony/ 70301R International Student Lounge

Survey Results

* Number of participants:

Camp 1	Camp 2	Camp 3
43 students	23 students	33 students

• Q1. Topic and contents of this camp

Camp 1	Camp 2	Camp 3
84% satisfaction	91% satisfaction	96% satisfaction

• Q2. Lecturer's instructional skills

Camp 1	Camp 2	Camp 3
98% satisfaction	96% satisfaction	100% satisfaction

• Q3. Content of the handout

Camp 1	Camp 2	Camp 3
53% satisfaction	87% satisfaction	81% satisfaction

- **Q4. Schedule arranged**

Camp 1	Camp 2	Camp 3
81% satisfaction	70% satisfaction	81% satisfaction

- **Q5. Location arranged**

Camp 1	Camp 2	Camp 3
91% satisfaction	91% satisfaction	85% satisfaction

- **Q6. Do you think this camp is helpful for your study**

Camp 1	Camp 2	Camp 3
95% satisfaction	87% satisfaction	78% satisfaction

- **Q7. Overall, how do you feel about the camp**

Camp 1	Camp 2	Camp 3
95% satisfaction	96% satisfaction	96% satisfaction

Feedback from participants

- ◆ I've learned a lot! I'm glad to join this camp . I made some friends, met energetic teachers and actually had fun.
- ◆ Good to know something about MIT and American culture, geography and history, you can never learn it at school!
- ◆ I can feel my English is improving, esp. listening & vocabulary!
- ◆ MIT team members are all very nice and friendly, thank you very much!
- ◆ Love MY Camp! Physics, neuroscience and dance classes are so fun!
- ◆ MY Camp is very different from the other camps, besides of specialized knowledge, it's also challenging since all courses were taught in English.
- ◆ Their passion and love towards knowledge is something I really need to learn from them.
- ◆ Although I'm too shy to speak in English, various course contents are so fun, and feel so different since English is the only medium of instruction!
- ◆ What I have learned in MY Camp are all fantastic!

Words to MIT Team

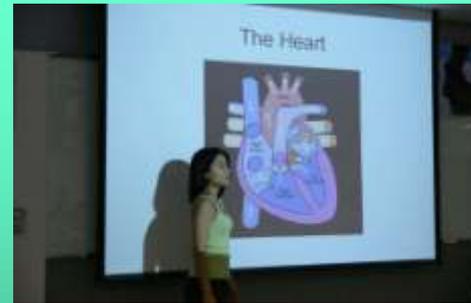
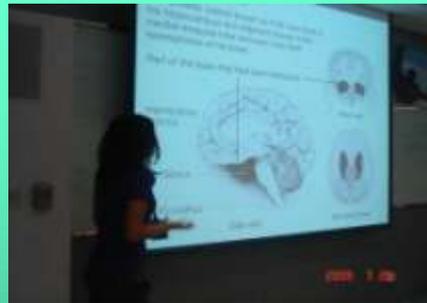
- Thanks for your efforts, very patient explaining what we don't understand.
- You're so cool, love you all, made me want to study in the U.S., too.
- Good to know all of you, hope to see you again someday.
- You're awesome and fabulous, you three are the best foreign teachers I've ever met!
- I've become less shy, thank you.
- Thank you for teaching us for free, I'd like to have more interactions with you but my English is not so good, hope still have chance to study with you.
- Our shyness may make you feel boring sometime, but I do love the course very much.
- Lynne is such a lovely sunny girl.
- Thanks Tiff. for the translation job.
- Thanks Charles taught us Physics, it's very hard but still interesting!
- So good to get to know you and hope to see you again, thank you!

Photos

- ◆ Accommodation (YZU Dorm), PBL Classroom and Lab provided.



- ◆ Lectures



◆ PE Classes



◆ Closing Ceremony



◆ Tour



◆Others- We have so much fun this summer !!



☆ Look forward to MY Camp 2010 ☆

