

Engineering Summer Study in China

Faculty coordinator: Don Zhao (Civil Engineering; Phone: 844 6277; E-mail: zhaodon@auburn.edu)

Host schools: Taiyuan University of Science and Technology (TYUST) and Beijing University of Civil Engineering and Architecture (BUCEA), China

Number of students: Maximum 10 students. One to two students from each of the following engineering programs: CE, CHE, ECE, ME, MATL, CSSE, BSEN, and ISE. Each program can recommend up to three students (with proper ranking) to Don Zhao following the instruction below.

These programs were chosen based on the strength and capacity of the host institutions. The number allocation may be adjusted based on department recommendations and student qualifications.

Qualification and selection of students:

Each department should select one or two students with proper ranking, and e-mail their resumes to Don Zhao (zhaodon@auburn.edu). Zhao will then finalize the list, subject to the approval from the college. The selection criteria will be: 1) Student GPA, 2) extracurricular activities including research and cultural experiences and community services, 3) departmental recommendations, and 4) diversity (in culture, ethnic groups and specialty areas). Those not selected in the top ten will be placed on the waiting list.

Engineering undergraduates majoring in the aforementioned programs may apply. Preferences will be given to seniors and juniors with good academic standing.

Deadline: Department nominations are due to Don Zhao by March 1, 2017.

Duration: May 9 (Tuesday) through May 31 (Monday), 2017

Course title: ENGR 3970 Special Topics: Global Engineering Perspectives - China

Credit hours (Varies slightly by Department):

CE: 3 credit hour course: one credit hour would count toward BCE, and two for other purposes.

CHE: Two options: 3 hours of free-elective credit or 1 hour of technical elective credit and 2 hours of free elective credit.

ECE: Two options: 3 hours of free-elective credit or 1 hour of technical elective credit and 2 hours of free elective credit.

ME: 3 hours "Free Elective".

MATL: Two options: 3 hours of free-elective credit or 1 hour of technical elective credit and 2 hours of free elective credit.

CSSE: 3 hours "Free Elective".

BSEN: The same as CHE.

ISE: 3 hours "Free Elective".

Cost: The College of Engineering will provide each student with \$1,000 subsidy to cover part of the flight ticket (which is usually ~\$1500), and TYUST and BUCEA will cover most living expenses including waive of tuition and fees, student housing, most meals and most fees associated with the educational and cultural activities/tours. Students are responsible for additional personal expenses (e.g. the AU study abroad fee of ~\$600, passport, visa, insurance, MEDEX, etc.).

General scope: TYUST and BUCEA will host a group of selected AU undergraduate engineering students for a total of ~three weeks as a part of ongoing student/faculty exchange program between AU and these two partner schools. The students will carry out a series of academic and cultural exchange activities, including: 1) participating in ongoing research projects in respective research groups at TYUST and BUCEA; 2) taking a series of short courses and seminars in respective engineering specialty areas and learning Chinese engineering practices, basic Chinese language and Chinese culture/history/etiquettes; 3) visiting several major engineering plants/factories in Taiyuan and Beijing, 4) participating in joint activities with fellow Chinese students, and 5) visiting some major cultural relics in Shanxi province and Beijing to learn the relevant history, culture, and ancient architecture. A general course agenda is prescribed as follows:

- 1) A pre-trip information session. To be arranged by Dr. Don Zhao
- 2) A pre-departure training session by the AU Study Abroad Office
- 3) Week 1 and Week 2 (TYUST in Taiyuan, Shanxi Province)
- 4) Week 3 (BUCEA in Beijing)

General course activities:

Morning (8 AM-12 PM):

1. Take specialty short courses/seminars taught by BUCEA/TYUST faculty from various departments (students will be split into various specialty programs for specialty courses and research activities)
2. Take short courses on conversation Chinese, Chinese history, etiquette, and culture (students will be in one group for general courses and activities)
3. Visit/participate in ongoing research projects

Afternoon (2 PM - 6 PM)

1. Visit research labs and participating in ongoing research projects
2. Visit TYUST students internship workshops (machining lathes)
3. Visit Taiyuan Heavy Machinery Group
4. Visit Taiyuan Iron and Steel Co.
5. Visit two casting plants near Taiyuan (located in Qingxu county, Jiaocheng County)
6. Introduce Chinese Kung Fu and Tai Chi
7. Sports and cultural activities with fellow Chinese students

Weekends: Visit some famous cultural heritage sites, ancient architectures and structures, and Chinese horticulture (e.g., the Great Wall, Forbidden City, Summer Palace, the National Museums, Shanxi Museum, Jinci Temple, Pingyao Ancient City, Datong Grotto and Xuankong Hanging Temple)

Tests, reports and course grading:

All students are required to write a reasonably detailed trip journal, summarizing both technical and cultural knowledge you have gained through your daily activities. Include selected pictures and illustrations and a summary/recap of your class notes. The trip journal will be your final report for grading, and is due to Dr. Zhao two weeks after the return. The general requirements for the final report are: up to 50 pages (additional materials such as pictures and course materials may be attached), 12 point font size, 1 inch margin all sides, single line space. You must include sufficient details about the technical knowledge you learned from each lecture, lab, presentation or factory visit; and sufficient details about cultural gains from each field trip, such as history, culture, architecture, legends, customs, etc. This is not a simple diary recording daily activities; rather, it is a recap of what you have learned from these activities, and what you think about these experiences. Avoid trip trivial. Number the page continuously. Format your report as a typical journal paper.

Quizzes and tests will be administered by individual hosting faculty members during the course of the three-week study. Both technical and cultural knowledge are to be covered in the quizzes/tests. Please provide Dr. Zhao a copy of all your graded homework, quizzes and exams.

Final course grading will be based on homework/quizzes/tests (40%) and the final report (60%).

Note: Realizing the complexity of the international collaborations, exceptional circumstances can occur in administering quizzes/tests and grading. Under exceptional circumstances, the course coordinator, in consultation with the Dean, reserves the right to rearrange the tests/grading rules on a case-by-case basis to assure the academic quality of the course.

Notes:

- 1) The students are required to register through the AU Study Abroad program and are required to comply with the proper AU international travel policies and insurance requirements.
- 2) AU is not responsible for personal losses or injuries.
- 3) Students from CE, CHE and BSEN will be placed in the Environmental Engineering group with a focus on environmental-related research/educational activities, and students in ISE may be grouped with ME, ECE and CSSE students, depending on interests.