



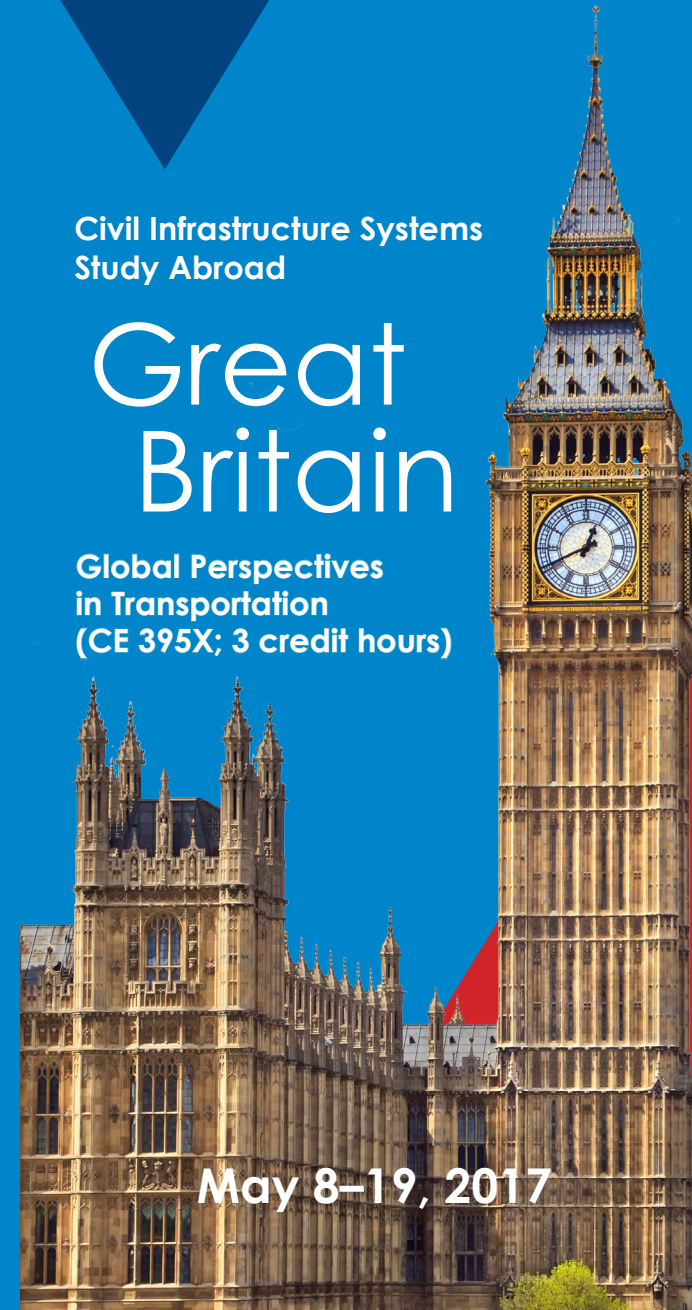
Civil Infrastructure Systems  
Study Abroad

# Great Britain

Global Perspectives  
in Transportation  
(CE 395X; 3 credit hours)

Offered through the Department of Civil,  
Construction, and Environmental Engineering

For more information about this study abroad  
opportunity, contact Judy Thomas,  
[jathomas@iastate.edu](mailto:jathomas@iastate.edu).



May 8–19, 2017

IOWA STATE  
UNIVERSITY  
Department of Civil, Construction,  
and Environmental Engineering



IOWA STATE UNIVERSITY  
Department of Civil, Construction,  
and Environmental Engineering

## Study in Edinburgh, Scotland & London, England

Civil engineering is an increasingly global profession. Through this course, students will begin to gain an international understanding of the impact of different historical, cultural, social, environmental, and political factors on transportation and infrastructure projects. In addition, this course will help students prepare for future careers in both the public and private sector.

### Instructors

All instructors are professors of Civil, Construction, and Environmental Engineering at Iowa State University. The ISU professors will be present for the duration of the two-week course.

### Your Academic Program at ISU

Global Perspectives in Transportation (CE 395X; 3 credit hours) can serve as an engineering technical elective for civil engineering students.

Sophomores, juniors, and seniors are encouraged to participate in this opportunity. Possible arrangements can be made for interested graduate students and freshmen.

### Course Schedule

- Some class time during spring semester
- Class time and field trips M–F (in-country)
- Most evening and weekend hours are free
- Organized optional social activities
- Most students are able to still complete a summer internship after returning

## Course Topics & Field Trips

To observe is to fully understand. Students will be provided opportunities to observe international infrastructure and transportation systems and contrast them against those in the US. The assessment of risk failure and management of complex systems will be explored. Students will learn why human decision makers are needed vs. relying on a completely automated system. Course topics include data analytics and image processing as well as addressing transportation issues such as safety, asset management, and transit and logistics. Major trips include the following:

- Traffic management centers—Get insights into how big data analytics and sensor fusion is used to smartly manage transportation systems
- World class transit systems—Visit the complex London Underground and learn about its 270 stations that span nearly 250 miles
- Biofuel refinery—Learn how production systems manage energy consumption and what sustainable solutions are needed to support the future generation
- World’s only rotating boatlift—Visit the Falkirk Wheel and discover more about structural, mechanical, and electronic innovation
- Structurally innovative bridges—Explore the Forth Bridge, Tower Bridge, and Millennium Bridge and understand what was required to make them safe to cross
- Large construction projects—See the planning and execution accuracy required to develop and maintain transportation infrastructure

- Historic structures (Stonehenge, Roman Baths, Tower of London, medieval castles)—Discover the past by contrasting the feats of civil engineering in the modern world against historic construction projects

And fun social activities like a bike ride through Edinburgh and visiting the London Eye, Westminster Abbey, Big Ben, Prime Meridian, and much more.

### Housing

While in Edinburgh, Scotland, students will reside in rooms at the Masson House, a Bed and Breakfast on the University of Edinburgh’s Pollock Halls campus. While in London, students will stay at the Keystone House Hostel, which is situated in the heart of London, just a two-minute walk from King’s Cross station. The housing facilities will be vetted by ISU personnel and will meet all ISU housing requirements.

### Costs

- Students can sign up for CE 395X for spring semester to avoid paying summer tuition (tuition will be part of regular spring semester costs)
- Housing: Approx. \$750/person
- Airfare from Des Moines International Airport with taxi to destination: Approx. \$1,400
- Additional costs for field trips, other meals, and miscellaneous expenses: Approx. \$650

Total costs are estimated at \$2,800. All listed costs are estimates at this time.