

Civil Engineering, Sustainable Systems Engineering Trip to Lisbon, Portugal 2024: Global Engineering Experience

Dates: February 17 – 24, 2024

Program Details:

Day 1: Arrive in Lisbon

Arrive at Lisbon airport and transfer to the hotel. Group discussion on trip itinerary.

Day 2: Urban Planning and Sustainability

Guided walking tour of the historical Alfama district in Lisbon. Observe the different architectural styles of the district and the infrastructure that supports the city. Visit the Vasco da Gama Bridge, one of the longest bridges in Europe, or a sustainability project in Lisbon. Lisbon is the 2020 European Green Capital Award winner for its demonstration of sustainability. Group discussion and reflection on the day's experiences.

Day 3: Sustainability

Travel to the town of Sintra known for its sustainability initiatives such as the Municipal Action Plan for Sustainable Energy. Visit the UNESCO World Heritage Site of Palacio e Quinta da Regaleira. Learn about the Palacio's Romantic Revivalist style and visit the labyrinthine gardens within the forested grounds. Stops in Cabo da Roca and Cascais before returning to Lisbon.

Day 4: Historic Engineering

Visit the historic engineering landmark of the fortified town of Obidos to discuss the city's engineering history. Stop and visit the 16th-century Aqueduto de Obidos, a 3 km long aqueduct comprised of 127 arches and stone masonry structural engineering. A visit to Nazare follows to learn about the hydrology behind the largest waves in the world.

Day 5: Engineering Education

Tour the UNESCO World Heritage Site of the University of Coimbra, one of the oldest universities in Europe. See the Biblioteca Joanina, an 18th-century baroque library on campus, followed by a possible visit to the Faculty of Engineering. Then on to Aveiro to discuss sustainable water management and travel on its canals.

Day 6: Infrastructure Challenges and Solutions

The day is spent in the city of Porto. Walking tour of the old city of Porto, Ribeira (UNESCO World Heritage Site). Visit the Dom Luis I Bridge, a double-deck, metal, single-arch bridge that crosses the Rio Douro. Ride the Guindais Funicular to learn about the geotechnical engineering behind the funicular construction. Visit the Sao Bento railway station, known for its Beaux-Arts architecture and murals depicting Portuguese history, and the main terminus for railway lines. Finish the day with a campus tour of the University of Porto and a visit to the Faculty of Engineering to learn about their sustainability initiatives. Group discussion about the trip's lessons and takeaways.



Participants: Open to a maximum of **15 undergraduates** in the **Civil Engineering major**, and **5 undergraduates** from **Sustainable Systems Engineering major**. Students are required to complete the Global Engineering Experience application form. They must participate in all pre-departure education, meetings, and preparation activities.

Eligibility: Students who have a minimum GPA of 2.0, **have not previously participated in the Global Experience** program and in all years of their Electrical Engineering major are welcome to apply. Students must be currently eligible and have valid visas for travel to **Portugal**, as well as all supporting travel documentation required for their destination. Please note, the **passport must be valid at the time of application**.

Cost: Students eligible for this program will be required to pay out of pocket **a maximum of \$2,000, final amount to be determined.** This includes round-trip airfare, field trips, local transportation, emergency medical insurance, and accommodations. Some meals will be provided (program dependent), but students should budget for food and snack purchases.

Funding: Due to the significant existing financial contribution from SSE, students will not be eligible to receive Schulich Student Activities Funding (SSAF) or UCalgary International Funding for these experiences.

Pre-departure: The Engineering Student Centre and Chaperone(s) will host a mandatory pre-departure session for students. Topics covered will include student rules of conduct, customs/norms of the destination countries, attendance expectations, and a full overview of the agenda. Students will also be expected to complete online study abroad module in D2L.

Student conduct: Students will be bound by university non-academic misconduct policies and will be required to sign the SSE Rules of Engagement for Group travel document. If misconduct occurs, the faculty chaperones, in consultation with the Dean's Office, reserve the right to send the student(s) home. Students will be required to sign risk and student conduct waivers at the pre-departure session.

Additional student expenses: Managed directly by program participants:

- Meals (breakfast may be provided)
- Additional baggage fees (if required)
- Passport & Photos (If required)
- EU Visa (if required) or ETIAS (https://travel-europe.europa.eu/etias_en)
- Immunizations: based on recommendations from travel clinic, cost varies depending on individual circumstances and destination countries
- Travel insurance (emergency response will be in included)