



Germany and France 2026: Global Engineering Experience

Program Summary:

The program will visit the cities of Munich (Germany) and Paris (France). In Munich, we will visit the site of the 1972 Munich Olympic games and observe the lightweight, tensile structures designed by Professor Frei Otto of the University of Stuttgart. We will also visit the Deutsches Museum, originally conceived by Civil Engineer Oskar von Miller that is today the largest science and technology museum in the world. There we will encounter exhibits that include agriculture and food, astronautics, bridges and hydraulic engineering, electronics, energy and motors, health, historic aviation, modern aviation, photography and film, and robotics. Key exhibits include Rudolf Diesel's first compression-ignition engine, Wernher von Braun's V-2 rocket, and the Messerschmitt Me 262, the world's first operational jet fighter and fighter-bomber that was used by the Luftwaffe. Finally, we will visit both the BMW Museum and BMW's manufacturing facilities. While at the BMW museum we will gain insight into where the company envisions the automotive industry to be going in the next decade, including designs of both electric and hydrogen-powered vehicles. After visiting the BMW Museum, we will visit the BMW manufacturing plant where we will observe the processes of material transformation and manufacturing that enable this company to remain a global leader in automotive design and manufacturing.

In Paris, we will visit the Musée des Arts et Métiers on the campus of the Conservatoire National des Arts et Métiers (CNAM) where we will explore the development of scientific instruments, materials, energy, mechanics, construction, communication, and transportation, all from the French perspective. Key exhibits include the laboratory of Antoine Lavoisier, the French chemist who (in 1789) used precise measurements to prove that mass was conserved during a chemical reaction, and the first ever steam-powered car that was designed and built (in 1769) by Nicolas-Joseph Cugnot and used by the French Army to haul cannons. We will also visit the Pompidou Centre, Les Halles, the Louvre, and the Musée des Egouts de Paris (Sewers of Paris) to observe segments of the operating municipal sewer system.

Additional information: This program involves a significant amount of walking. Applicants need to be physically able to walk up to 5-10 km each day.

Program Details:

In Munich, we will visit the site of the 1972 Olympic games and observe the lightweight, tensile structures designed by Professor Frei Otto, founder of the Institute for Lightweight Structures at the University of Stuttgart. We will also visit the Deutsches Museum, the world's largest museum of science and technology. The concept for the Deutsches Museum is attributed to Munich Civil Engineer Oskar von Miller, who was inspired by visits to the Musée des Arts et Métiers in Paris and the Victoria and Albert Museum in South Kensington, London. Taking 20 years to build, the Deutsches Museum opened on May 7, 1925, the date of Oskar von Miller's 70th birthday. The museum is currently undergoing a 10-year modernization plan, to be completed in 2028. During modernization, we will be able to visit more than half of the exhibits, including Agriculture and Food, Astronautics, Atomic Physics, Bridges and Hydraulic




Engineering, Chemistry, Classical Optics, Electronics, Energy – Motors, Health, Historic Aviation, Image Script Codes, Modern Aviation, Musical Instruments, Photography and Film, and Robotics. Key exhibits include Rudolf Diesel's first compression-ignition engine, Wernher von Braun's V-2 rocket, and the Messerschmitt Me 262, the world's first operational jet fighter and fighter-bomber that was used by the Luftwaffe.

While in Munich we will also visit the BMW Museum where we will learn about both the history and the evolution of the automotive manufacturer. While at the museum we will gain insight into where BMW envisions the automotive industry to be going in the next decade, including designs of both electric and hydrogen-powered vehicles. After visiting the BMW Museum, we will visit the BMW manufacturing plant where we will observe the processes of material transformation and manufacturing that enable this company to remain a global leader in automotive design and manufacturing.

In Paris, we will visit one of the museums that inspired Oskar von Miller to establish the Deutsches Museum. The Musee des Arts et Metiers was founded in 1794, and there we will explore the development of Scientific Instruments, Materials, Energy, Mechanics, Construction, Communication, and Transportation, all from the French perspective. Key exhibits include the laboratory of Antoine Lavoisier, the French chemist who in 1789 used precise measurements to prove that mass was conserved during a chemical reaction, and the first ever steam-powered car that was designed and built in 1769 by Nicolas-Joseph Cugnot and used by the French Army to haul cannons. We will also visit the Pompidou Centre and observe a building that was designed inside out with all of the mechanical Heating, Ventilation and Air Conditioning (HVAC) systems located on the outside of the building. Although currently undergoing renovation due to the fact that the HVAC systems have been exposed to the elements, it will be an opportunity to observe a very non-traditional approach to building design. From the Pompidou Centre we will take a short walk to Les Halles, site of the original 11th century market that was located within the walls of Paris and known affectionately as the Belly of Paris. After having visited the Belly of Paris, we will then visit the Musee des Egouts de Paris – also known as the Sewers of Paris. There we will observe the hidden infrastructure and technology that enabled Paris to attract both artisans and academicians as it evolved into a global hub for art, fashion, and gastronomy:

The history of the sewers of Paris and that of the city are intimately linked. The evolution of one has direct influence on that of the other, and vice versa. By the end of the 18th c., the sewers become a cloaca, as the capital is invaded by disease. Over the course of the 19th c. and with technical advancements, the sewers are turning ever more agile, deftly winding under the city into a unitary, gravitational, and visitable network, as Paris begins to breathe and evolve.

We will conclude our time in Paris with a visit to the Louvre. Originally built in the late 12th century as a fortress located on the walls that protected the city, the Louvre was later transformed into the residence for Kings of France. With the French Revolution that began in 1789, the French Royalty was removed from power, and the National Assembly decreed that the Louvre should be used as a museum



to display the nation's masterpieces. The museum opened on 10 August 1793 with an exhibition of 537 paintings, the majority of the works being royal and confiscated church property and is today one of the most famous museums in the world.

Dates: 14-21 February, 2026

Location: Munich Germany and Paris France

Language: English

Program type: Group Study

Application status: Open

Application deadline: October 09, 2025

Participants: This is a cross-departmental trip open to all disciplines within engineering. Students are required to complete the Global Engineering Experience application form. They are responsible for securing Visas and all supporting travel documentation if required for their destination. 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 the 2nd year & above of their Engineering major are welcome to apply. Students must have a passport that is valid for at least 6 months past the date of the return, have updated vaccination records and be eligible to travel to the destination country. *Please note, passport must be valid at the time of application.*

Cost: Students eligible for this program will be required to pay out of pocket up to \$2,000. 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. The 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 an online study abroad module.

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 will be provided)
- Additional baggage fees (if required)
- Passport & Photos (If required)
- Immunizations: based on recommendations from travel clinic, cost varies depending on individual circumstances and destination countries
- Travel insurance (medical and emergency will be included)