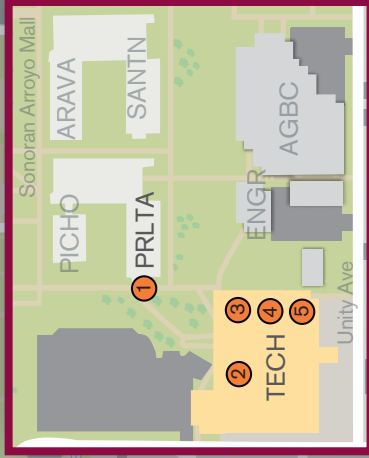
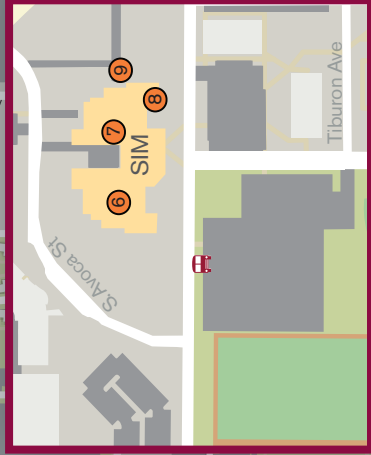


FSE Student Experience Tour

Polytechnic Campus



Ira A. Fulton Schools of
ASU Engineering
Arizona State University

Let's go!

1. The **Peralta Engineering Studio** houses our Foundations of Engineering Design Project courses. These classes are taken by all general engineering students. Throughout the course of the year, they learn the fundamentals of engineering design and communication in a team.

2. The **Technology Center** is older than the Polytechnic campus itself — it is one of the buildings from the former Williams Air Force Base, which was later turned into an ASU campus. Arizona State University is one of only two universities in the United States that has its own altitude chamber. The ASU altitude chamber is used for Aviation Physiology and Human Factors courses. This robotics lab is focused mostly on what is known as "soft robotics." Soft robotics is the concept of constructing robots out of materials that are similar to the materials found in living organisms.

3. Home to millions of dollars worth of cutting-edge equipment, the **Innovation Hub** is a tinkerer's paradise. The Innovation Hub has its own materials store where students can purchase wood, filament, vinyl, and much more for their projects.

4. The **Print and Imaging Lab** handles about 95% of all of ASU's printed materials. Everything from student projects to even large print pieces, such as wall wraps or large posters for our annual Innovation Showcase event, gets printed in this space. This is mostly a student-run operation — with about 25 students who work in the lab each semester.

5. The **Commercial Photography Studio** is a cornerstone of the graphic information technology program. It is a working professional photography studio with three shooting bays outfitted with state of the art digital cameras and lighting equipment. The Studio is available for hire, and all of the shoots are student-led.

6. All aviation students will take a course in the **Aircraft Powerplants Lab** dedicated to learning about piston and turbine aircraft engines. In this laboratory, students complete hands-on projects and visual demonstrations to supplement classroom lectures. Some of the graded projects in the powerplants course include dismantling and reassembling a piston engine and an aircraft de-icing system. Students also take field trips to local airline maintenance operations and engine overhaul facilities.

7. All aviation degree programs include a minimum of two courses conducted in the **aircraft structures laboratory**. In the first of these courses, students learn about aerodynamics and are tasked with building a profile of a metal wing which is then tested in a wind tunnel. Students will evaluate different drag shapes, determine the coefficient of drag, and evaluate and plot values of lift production at varying angles of attack. They will also observe a basic hydraulic demonstration and apply it to braking systems on various types of aircraft.

8. The Aviation Program offers several different types of **flight simulators** available to all of our students. To begin learning to operate these, students can use desktop flight simulators by Elite complete with a yoke, rudder, radio stack, GPS and power quadrant set up. Students will use these in their initial training as well as

during the instrument portion of their flight training. Also available to students is a full motion, feature-rich Redbird flight simulator. This dual-seat glass cockpit simulator is electrically driven and simulates roll, pitch, and yaw movement.

9. Air Traffic Management students will use both the **radar and tower simulators** during their degree program to learn about the three sectors of air traffic control. Students will start off by learning the fundamentals of air traffic management, including manuals, procedures, maps, charts and regulations used by air traffic controllers in the National Airspace System. As students progress through their courses, they will study tower operations, including the use of a high-fidelity 270 degree tower simulator to practice the phraseology, procedures and air traffic management equipment.



Listen to the audio tour and learn more:
engineering.asu.edu/visit