
STUDENT PROJECT SAFETY REQUIREMENTS

Santa Clara University is committed to providing a safe learning environment for all students, including one that is free of accidents and injuries. To accomplish this on-campus, SCU has implemented numerous Environment, Health and Safety programs aimed at identifying hazards and developing methods to mitigate the risk(s) associated with them. Just as importantly, SCU is concerned over the safety of its students involved in off-site affiliated activities.

These guidelines apply to all junior and senior design projects, sponsored work at outside companies, SCU endorsed competitions or other **project work involving hazardous agents, conditions, processes or activities**.

1. Students working on projects shall:

- Conduct project work only at approved SCU and third-party locations. Off campus work at third party locations requires a formal agreement be signed between the off-site entity and SCU. This must be in place before any site work can commence. The **Senior Design Project Facility and/or Equipment Use Acknowledgement Form** must be completed. Hazardous work at private residences is strictly prohibited.
- Complete a Hazard Assessment of the project and obtain Faculty Advisor, Dept. Chair and all other necessary reviews prior to commencing (e.g. Laboratory Manager, EHS, Risk Management, etc.). The **Student Project Hazard Assessment Form** is the recommended template to use for this exercise.
- Obtain permission from the space owner and abide by all applicable safety requirements established for that location where you are working, including: access requirements, hours of operation, working alone procedures, lab and shop specific procedures, etc.
- Read and understand those sections of SCU, specific project, external competition rules or other applicable safety and instruction manuals, etc. that apply
- Complete all safety training as determined by the hazard analysis and other training as required by the department
- Commit to following safe work practices and procedures, including never working alone with potentially hazardous materials, tools or equipment
- Share responsibility for safety with other members of the project team
- Report all incidents, injuries, near misses and safety concerns to the project advisor

2. Your Faculty Advisor and Department Chair must approve your project work before you begin.

Additional approvals may also be required before work can begin. Hazardous project work must be reviewed and approved prior to project commencement. Complete the **Student Project Hazard Assessment Form**, even if your project does not involve hazardous agents, conditions and/or activities. Examples of these include, but are not limited to:

- **Electrical:** Electrical parts and assemblies with High Voltage (> 50 Volts) and/or High Current; batteries; control panels, etc.
 - **Mechanical:** Power tools and equipment; machine guarding/power transmission (gears, rotors, wheels, shafts, belt/chain drives, rotating moving parts, pinch points); robotics; sharp objects; stored energy (springs, gravity, etc.)
 - **Noise:** Greater than 80 decibels
 - **Physical:** Extreme temperatures (high temperature fluids: water > 160 °F, superheated steam, etc., Cryogenic fluids: boiling point < -240 °F, hot surfaces > 140°F); lifting heavy objects; elevated heights (scaffolding, ladders, roofs, etc.); slip, trip or fall hazards; overhead falling objects (cranes, hoists, drones, projectiles, etc.); vehicle traffic; confined spaces; dust; etc.
 - **Pressure:** Work with pressurized systems greater or less than atmosphere; compressed gases
 - **Radiation:** non-ionizing (laser, microwave, UV, infrared, etc.) - *Note: project work with ionizing radiation is prohibited*
 - **Biological:** Recombinant DNA, infectious or potentially infectious material (bacteria, viruses, etc.), animals and insects (*Note: biological focused laboratory projects require a separate project approval form and may require SCU Biosafety Committee approval*)
 - **Chemical:** Laboratory chemicals (toxic, reactive, flammable), gasoline, solvents, lubricants, paints, etc. (*Note: chemical focused laboratory projects require a separate project approval form*)
 - **Procedures:** Metal fabrication (welding, cutting, brazing, grinding, drilling, machining, etc.); soldering; construction, etc.
 - **Projects requiring the use of Personal Protective Equipment:** hearing protection, safety glasses/goggles, face shield, respirator, apron, lab coat, gloves, etc.
 - **Other Hazards** not specified above
3. If you feel that any activities you are participating in at an off-site location are potentially unsafe, you should report this immediately to your SCU Faculty Advisor.
 4. Any work conducted on-campus in support of off-campus activities must be pre-approved by your SCU Faculty Advisor and be performed in accordance with existing SCU EHS requirements.
 5. You may not transport hazardous materials to and from SCU and any outside location.
 6. Accidents, injuries and incidents must be reported to your Faculty Advisor immediately. An incident reporting form is found on the EHS website at: www.scu.edu/ehs
 7. If you have any questions about the safety aspects of your project work, consult with your SCU Faculty Advisor. The SCU EHS Department cannot supervise projects but can be a resource and can be contacted at ytan1@scu.edu or 408-444-3058. More information can be found on the SCU EHS website at www.scu.edu/ehs under Laboratory and Shop Safety and the School of Engineering's [Senior Design Resources Page](#)