



CAED JOB TASK HAZARD ANALYSIS WORKSHEET

Note: *This worksheet shows a limited number of examples of task hazards. It is the responsibility of the supervising faculty and CAED technical staff to identify task hazards for activities not shown on this worksheet.*

Job Task	Task Hazards	Preventative Actions
Woodworking	<ul style="list-style-type: none">▪ Wood dust▪ Fire and Explosion▪ Noise▪ Hand-arm vibration syndrome▪ Woodworking machinery▪ Chainsaws	<ul style="list-style-type: none">▪ Verify dust collectors are functioning correctly▪ Verify spark arresters are functioning correctly▪ Use required PPE▪ Training on use of machinery and tools▪ Ensure proper fire extinguisher is available and charged
Crane operation, rigging, and/or moving load	<ul style="list-style-type: none">▪ Struck by moving or falling load▪ Crushing injuries▪ Damage to equipment	<ul style="list-style-type: none">▪ Never stand in a crush-point or under any suspended load▪ Use required PPE▪ Use teamwork for rigging▪ Verify rigging capacities and working loads▪ Prepare a rigging plan
Specimen testing	<ul style="list-style-type: none">▪ Specimen failure (i.e., spalling concrete or bolt failure)	<ul style="list-style-type: none">▪ Wear required PPE▪ Keep nonessential personnel at a safe distance from the test▪ Provide protective shielding to protect personnel and equipment
Tensioning specimen to strong floor or strong walls	<ul style="list-style-type: none">▪ Smashing hand against surfaces while using a ratchet or wrench▪ Ergonomics (strain)▪ Equipment failure▪ Potential for heat stroke	<ul style="list-style-type: none">▪ Wear required PPE▪ Be aware of your surroundings▪ Work slowly▪ Take breaks if physical activity is too high
General working (walking and working)	<ul style="list-style-type: none">▪ Tripping, slipping, or walking into objects	<ul style="list-style-type: none">▪ Wear required PPE▪ Cover cords and cables

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throughout the lab area)		<ul style="list-style-type: none"> ▪ Immediately take care of any spills ▪ Practice good housekeeping
Working in an enclosed space	<ul style="list-style-type: none"> ▪ Heat exhaustion ▪ Impact injuries ▪ Cuts ▪ Hazardous atmosphere 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Take breaks ▪ Drink plenty of fluids ▪ Learn to recognize signs of heat stress in yourself and others ▪ Ensure adequate oxygen supply
Working at elevated heights	<ul style="list-style-type: none"> ▪ Potential to fall 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Understand your limitations, be aware of your surroundings, ▪ Use appropriate fall protection, ▪ Notify staff if you are uncomfortable working at heights
Operating and working from lifts, scaffolding, or ladders	<ul style="list-style-type: none"> ▪ Potential to fall ▪ Impact injuries ▪ Crush-points 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Never climb out of lift without using a fall arrest system ▪ Do not stand on railings ▪ Be aware of crush points between the lift's railing and other surfaces ▪ Work slowly, know your limitations
Lifting/moving materials	<ul style="list-style-type: none"> ▪ Strain to back ▪ Dropping materials ▪ Potential for cuts 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Know your limitations, do not lift over 100 pounds ▪ Understand where your destination is and what your travel path will be ▪ Use teamwork ▪ Wear gloves when handling metal or sharp materials ▪ Do not try to catch a falling object
Specimen instrumentation	<ul style="list-style-type: none"> ▪ Skin and eye irritation ▪ Falling objects 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Use latex gloves ▪ Wash hands after using strain gauge glue
Forklift operation	<ul style="list-style-type: none"> ▪ Impact injury ▪ Crushing 	<ul style="list-style-type: none"> ▪ Wear required PPE

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	<ul style="list-style-type: none"> Falling objects Rolling vehicle 	<ul style="list-style-type: none"> Only certified employees are allowed to operate the diesel forklifts Only certified students are allowed to operate the electric forklifts Be aware of surroundings while operating or working around an operational forklift Do not stand in the operators blind spot
Working with or around hydraulic equipment	<ul style="list-style-type: none"> Cutting or burns from high-pressure oil Potential for slick spots on the floor 	<ul style="list-style-type: none"> Wear required PPE Cautiously work around actuators and other hydraulic equipment Never disconnect actuator hoses or components that may be under pressure Use absorbent pads or oil dry to collect spilled oil
Concrete/Mortar/Grout handling (dry)	<ul style="list-style-type: none"> Skin, eye, respiratory hazards Back strain 	<ul style="list-style-type: none"> Wear required PPE Use latex gloves, dust masks See section on lifting or lifting heavy materials
Concrete/Mortar/Grout handling/casting	<ul style="list-style-type: none"> Skin and eye hazards Mechanical vibration Hearing loss Electric shock 	<ul style="list-style-type: none"> Wear required PPE Minimize exposure to concrete vibrator Use latex or rubber gloves due to burn potential from fresh concrete Wash hands and exposed skin immediately following completion of work Use gloves when using a vibrator to prevent skin burns Use earplugs/ earmuffs Keep extension cords and electrical connections dry
Using CAED tools	<ul style="list-style-type: none"> Mechanical injury Mechanical vibration Eye injury Mechanical failure injury Impact, cuts and hearing hazards 	<ul style="list-style-type: none"> Wear required PPE Take breaks to reduce exposure to vibrations Know the limitations of power tool to avoid mechanical failure Inspect and maintain the power tool

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	<ul style="list-style-type: none"> ▪ Electrical shock 	<ul style="list-style-type: none"> ▪ Do not wear loose clothing when operating rotating machinery ▪ Tie back long hair when using power tools ▪ Do not use power tools in wet or damp areas
Welding or torching	<ul style="list-style-type: none"> ▪ Explosion ▪ Burns ▪ Electrical shock 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Keep area clear of any flammable materials or accelerants ▪ Know where all fire extinguishers are located ▪ Do not weld in wet or damp areas
Proper housekeeping and storage of materials	<ul style="list-style-type: none"> ▪ Creating airborne dust from sweeping ▪ Impact injury from falling objects ▪ Trip hazards ▪ Forklift operation 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ Do not lean unstable objects against other objects or working surfaces ▪ Do not leave tools and materials on elevated work platforms or specimens ▪ Use a vacuum for general cleaning
Working with pneumatic equipment (i.e., tools and hoses)	<ul style="list-style-type: none"> ▪ Impact injury ▪ Eye injury ▪ Hearing loss 	<ul style="list-style-type: none"> ▪ Wear required PPE ▪ If hose becomes cut and begins to whip, do not try to catch or stop hose ▪ Immediately locate and shut off valve ▪ Use hearing protection