

# HIRAC Report

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## 1. Hazard Management Details – General

This form relates to OHS Procedure – [Hazard Identification, Risk Assessment and Control \(HIRAC\)](#)

School / Work Location:	<b>Ballarat Tech School (Fed College)</b>
Name of Person(s):	Liam Mudge, Matty Chaplin
Date Conducted:	04/04/2024
Last Reviewed:	29/09/2023
Next Review Due:	February 2025

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<p><b>Description of Use:</b></p> <p>The Ballarat Tech School (BTS) delivers a range of STEM curriculum projects, some of these activities may be hazardous to user's health if safety procedures and lab etiquette are not followed.</p> <p>This document assesses the risk involved with:</p> <ul style="list-style-type: none"> <li>• Food handling</li> <li>• Maintaining a Safe Kitchen</li> <li>• Food Experimentation</li> </ul>	<p><b>Summary of Key Risks:</b> <b>(Refer to appropriate subsections)</b></p>
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## Risk Assessment Matrix

### Assessing OHS Risks

Risk assessments in matters of Occupational Health and Safety\* are based on 2 key factors:

- The severity of any injury/illness resulting from the hazard(s), and
- The likelihood that the injury/illness will actually occur.

*\*Assessment of risk level based on likely severity and probability of harm*

		LIKELIHOOD			
		Very Unlikely Could happen, but probably never will	Unlikely Could happen, but very rarely	Likely Could happen sometime	Very likely Could happen any time
SEVERITY	Death or permanent disability	<b>MEDIUM</b>	<b>HIGH</b>	<b>EXTREME</b>	<b>EXTREME</b>
	Long-term illness or serious injury	<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>	<b>EXTREME</b>
	Medical attention and short-term incapacity	<b>VERY LOW</b>	<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>
	First aid needed	<b>VERY LOW</b>	<b>VERY LOW</b>	<b>LOW</b>	<b>MEDIUM</b>

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2. Documentation		
Relevant Legislation/Standards	Y / N	Comments
<b>Key reference material:</b>		<ul style="list-style-type: none"> <li>AS/NZS 3760:2022 In service safety inspection and testing of electrical equipment.</li> <li>Food experimentation. Queensland Government. Department of Education and Training.</li> <li>Food handling. Queensland Government. Department of Education and Training.</li> <li>Cooking and maintain a safe kitchen. Queensland Government. Department of Education and Training.</li> <li>Risk Analysis in Food Regulation. Food Standard Australia New Zealand, 2013</li> </ul>

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## 3. Hazards

Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>Food handling</b>	Medium	<ul style="list-style-type: none"> <li>Illness resulting from contact or contamination by harmful microbial agents, spoiled food, improper food hygiene.</li> <li>Spoiled foods may result in illness.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure all food items used comply with Food Standards Australia New Zealand and are not subject to any current food recalls.</li> <li>Adhere to established hand hygiene practices outlined in the Infection Control Guideline</li> <li>Where possible, use clean equipment to pick up food rather than hands (e.g. tongs, serving spoons etc.)</li> <li>Ensure all food stuffs are correctly dated and labelled to avoid using spoiled goods.</li> <li>Advise students when product not fit for consumption.</li> </ul>	Low

Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>Raw Foods</b>	Medium	<ul style="list-style-type: none"> <li>Raw foods, especially meat can cause illness and may cross contaminate other food stuffs.</li> </ul>	<ul style="list-style-type: none"> <li>Keep uncooked food separate from cooked food and food to be eaten raw.</li> <li>Ensure the same equipment and utensils are not used for raw meat, poultry and seafood as for cooked foods and food to be eaten raw (e.g. salads).</li> <li>Cover raw meats, poultry and seafood and store towards the bottom of the refrigerator or in the meat compartment.</li> <li>Ensure raw food stored in a way so as to avoid leaking/spilling onto other foods/surfaces,</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b><i>Maintaining safe temperature</i></b>	Medium	<ul style="list-style-type: none"> <li>Foods not kept at safe temperatures may spoil and produce toxins/bacteria which result in illness.</li> </ul>	<ul style="list-style-type: none"> <li>Store food that needs refrigeration or freezing in containers with lids or covers such as plastic wrap and ensure they are labelled and dated clearly.</li> <li>Check the temperature of the refrigerator regularly.</li> <li>Keep hot food hot and cold food cold i.e. out of the danger zone of between 5°C and 60°C. For example:               <ul style="list-style-type: none"> <li>- keep cooked food at 60°C or above until served</li> <li>- refrigerate or freeze food that is prepared in advance</li> <li>- comply with Food Standards Australia New Zealand when reheating food</li> <li>- thaw frozen food in the refrigerator or microwave</li> </ul> </li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b><i>Cleaning</i></b>	Medium	<ul style="list-style-type: none"> <li>Contamination from spoiled food, cleaning agents/non edible chemicals, raw or other foods may cause illness.</li> <li>Cross contamination of allergens may pose serious risk of illness.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure the kitchen, equipment and clothing are kept clean.</li> <li>Ensure cleaning agents are used at the minimum strength necessary to maintain hygienic surfaces.</li> <li>Treat all clothing, equipment and surfaces contaminated by blood or saliva as infectious.</li> <li>Ensure procedures are in place to immediately manage the removal of all spilt substances (e.g. breakages bin, spill kit for large spills etc.)</li> <li>Wash fruit and vegetables that are to be eaten raw, under running water.</li> <li>Ensure best practice of keeping workspace clean to limit the spread of mess etc.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>Contamination</b>	Medium	<ul style="list-style-type: none"> <li>Illness resulting from contact or contamination by harmful microbial agents, spoiled food, improper food hygiene etc.</li> </ul>	<ul style="list-style-type: none"> <li>Do not allow people who are sick to prepare food, especially if they have vomiting or diarrhoea.</li> <li>Ensure unprocessed produce containing high levels of micro-organisms, such as unwashed potatoes and dirty eggs, do not contaminate other food, especially cooked and ready-to-eat food.</li> <li>Ensure the environment is controlled for pests e.g. use fly screens and food covers and do not leave food or dirty dishes on the bench.</li> <li>Ensure the environment is controlled for pests e.g. use fly screens and food covers and do not leave food or dirty dishes on the bench.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b><i>Kitchen Equipment</i></b>	Medium	<ul style="list-style-type: none"> <li>Damaged equipment may result in failure and exposure to hazard.</li> <li>Improper use of equipment may cause injury, or contamination.</li> <li>Improper stored equipment may become unsanitary/contaminated.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure equipment is clean and sanitised and does not have cracks and damage.</li> <li>Ensure knives are sufficiently sharp to allow for easy cutting and stored in a way that allows a safe selection.</li> <li>Use appropriate equipment to handle food safely.</li> <li>Ensure equipment is stored cleanly and safely when not in use.</li> </ul>	Low
<b><i>Waste Disposal/Spill Clean Up</i></b>	Medium	<ul style="list-style-type: none"> <li>Improper disposal of waste may result in contamination hazard.</li> <li>Improper disposal of waste may attract vermin and other pests resulting in contamination hazards.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure all waste materials are disposed of in appropriate receptacles.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b><i>Taste Testing</i></b>	Medium	<ul style="list-style-type: none"> <li>Taste testing of food and drink may expose participants to known or unknown allergenic agents.</li> <li>The taste of produced food and drink may induce adverse reactions from participants</li> </ul>	<ul style="list-style-type: none"> <li>Any participant with known allergies and risk of anaphylaxis should avoid allergenic agents and carry/maintain their own epinephrine pen and safety measures.</li> <li>Provision of adequate, clean &amp; uncontaminated water source to clean the palate and remove taste if required.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>ENTANGLEMENT</b> Can anyone's hair, clothing, gloves, cleaning brushes, tools, rags or other materials become entangled with moving parts of the tools or materials?	Medium	<ul style="list-style-type: none"> <li>Long hair, loose clothing, rags, cleaning brushes and jewellery could become entangled in the moving parts of the equipment or, could knock over equipment/vessels.</li> <li>Standing mixer may allow user to become entangled as the mixing mechanism is exposed</li> </ul>	<ul style="list-style-type: none"> <li>Instruct and identify exposed mechanisms to avoid.</li> <li>Ensure hair, loose clothing, rags and jewellery is kept clear of moving parts when in use. Aprons/PPE can be used to restrict loose clothing. Hair ties/hair nets can be used to secure long hair.</li> <li>Ensure inappropriate jewellery and accessories (e.g. bracelets) are not worn when operating equipment.</li> </ul>	Low
<b>SHEARING</b> Can anyone's body parts be sheared between two parts of tool, or between a part of the tool and a work piece or structure?	Medium	<ul style="list-style-type: none"> <li>Operating equipment such as blenders, food processors, mixing devices and handheld cutting utensils may result in shearing or other damage to users' fingers/hands if used inappropriately</li> </ul>	<ul style="list-style-type: none"> <li>Ensure electrical devices are switched off and unplugged from power prior to removing contents/cleaning.</li> <li>Proper induction &amp; supervision of cutting techniques.</li> <li>Use of proper cutting techniques.</li> <li>Instruction &amp; supervision</li> </ul>	Low

Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<p><b>IMPACT &amp; CUTTING INJURIES</b> Can anyone be crushed/cut/struck etc. due to:</p> <ul style="list-style-type: none"> <li>Material falling off the workspace?</li> <li>Uncontrolled/unexpected movement of tools /workspace?</li> <li>The tools tipping or rolling over?</li> <li>Parts of the tool disintegrating or collapsing?</li> <li>Contact with moving parts during testing, inspection, operation, maintenance, cleaning or repair?</li> <li>Inappropriate parts and accessories being used?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Equipment may inadvertently make contact users.</li> <li>Inattentive use of implements/utensils may result in sharp objects falling off work bench and/or contacting users.</li> <li>Unexpected/sudden movement of cutting utensils may result in inadvertent contact with users.</li> <li>Improper cutting action may result in cutting utensils making contact with users.</li> <li>Damaged/degraded equipment may result in unexpected contact with user.</li> </ul>	<ul style="list-style-type: none"> <li>Users instructed in proper techniques prior to activity.</li> <li>Ensure users are supervised while operating cutting/mixing/crushing equipment.</li> <li>Equipment returned to designated workspace when not in use.</li> <li>De-energise any equipment prior to cleaning/servicing.</li> <li>Do not use damaged equipment.</li> <li>Use equipment as directed.</li> <li>Ensure worksurface and equipment stable and secured before use.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>ELECTRICITY</b> Can anyone be injured or burnt due to: <ul style="list-style-type: none"> <li>• Access to electricity?</li> <li>• Damaged or poorly maintained electrical leads, cables or switches?</li> <li>• Water near electrical equipment?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>• Live power points are located around the Food &amp; Fibre Lab which allow access to electricity.</li> <li>• Damaged or frayed electrical cables pose an electrical hazard.</li> <li>• Electrical cables could become damaged by contact with hot elements or sharp utensils.</li> <li>• Liquids coming into contact with electrical supplies may result in electrical hazard.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Induction and supervision of users with access to electrical outlets</li> <li>• Ensure equipment is regularly serviced, tested and tagged (if not hardwired) and appropriate isolation procedures (e.g. lock out tags) are in place.</li> <li>• Tag out and do not use damaged electrical equipment.</li> <li>• Limit amount of liquid around outlets to avoid spills.</li> <li>• Where possible separate use of electrical equipment from liquid sources.</li> <li>• Turn off power and thoroughly clean/dry any spills which may occur.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b><i>ERGONOMICS</i></b> Can anyone be injured due to: <ul style="list-style-type: none"> <li>Poorly designed workstation?</li> <li>Repetitive body movement?</li> <li>Inadequate or poorly placed lighting?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Design of workstation does not allow for adequate space to perform tasks.</li> <li>Repetitive Strain Injuries</li> <li>Poor lighting may result in inadvertent exposure to hazardous suffuses, cutting edges and hot/cold surfaces</li> </ul>	<ul style="list-style-type: none"> <li>Relocate work to ensure adequate space for tasks as required.</li> <li>Users should avoid prolonged application of force, reassess appropriateness of tool/equipment.</li> <li>Ensure adequate lighting to perform task. Additional lighting may be required if ambient/room lighting is insufficient.</li> </ul>	Low
	Medium			Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>SLIPS / TRIPS / FALLS</b> Can anyone using the tool, or in the vicinity of the plant, slip, trip or fall due to: <ul style="list-style-type: none"> <li>• Uneven, slippery or steep work surfaces?</li> <li>• Poor housekeeping, e.g. spillage in the vicinity?</li> <li>• Obstacles being placed in the vicinity of the tool?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>• Floors may become slippery due to food items/liquid spills.</li> <li>• Poor housekeeping practices allowing the build-up of waste materials or failure to immediately clean up spills could result in a slip hazard.</li> <li>• Inappropriate placement of objects (e.g. spare materials, bags etc.) in the immediate vicinity of the plant equipment may result in trip hazard.</li> </ul>	<ul style="list-style-type: none"> <li>• Spills etc to be cleaned as quickly as practicable with users notified of potential slip hazards.</li> <li>• Non-slip matting used in wet areas.</li> <li>• Ensure appropriate cleaning and housekeeping practices are maintained to minimise the risk of a slip, trip or fall.</li> <li>• Floors and walkways kept clear of all bags etc.</li> </ul>	Low
<b>FIRE &amp; EXPLOSION</b> Can anyone be injured by fire?	Medium	<ul style="list-style-type: none"> <li>• Using bench top oven burner to prepare food may result in fire if items left unattended</li> </ul>	<ul style="list-style-type: none"> <li>• Instruct and supervise users how to work safely in relation to high temperatures (including appropriate emergency responses).</li> <li>• Ensure appropriate fire suppression measures are available in the activity area.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<b>TEMPERATURE / MOISTURE</b> <ul style="list-style-type: none"> <li>Can anyone come into contact with objects at high or low temperatures?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Cooking and freezing appliances used may result in injury such as burns etc.</li> <li>Steam resulting from direct boiling or cooking in either the microwave or on a burner may result in burns.</li> <li>Surfaces/objects may be hot/cold for some time after being removed from the heat/cold source.</li> <li>Cooking and freezing appliances used may result in contact with either hot or cold surfaces</li> <li>Steam resulting from cooking in either the microwave, burner or other heating method may result in severe burns.</li> <li>Surfaces/objects may be hot/cold for some time after being removed from the heat/cold source.</li> </ul>	<ul style="list-style-type: none"> <li>Use of appropriate PPE as is practicable. (Lab coats, aprons, gloves, masks, goggles.)</li> <li>If excessive steam or smoke expected from the activity use stove top range hood.</li> <li>Allow adequate time and physical isolation for surfaces to reach safe temperature.</li> </ul>	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<ul style="list-style-type: none"> <li>Can anyone be injured or suffer ill-health due to exposure to moisture?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Steam resulting from direct boiling or cooking in either the microwave or on a burner may result in burns.</li> <li>Users may be exposed to steam produced by industrial washing machine.</li> </ul>	<ul style="list-style-type: none"> <li>Induction and supervision relating to working with/in steam producing environment.</li> <li>Avoid direct contact with steam</li> </ul>	Low
<b>OTHER</b>  Can anyone be injured or suffer ill-health from exposure to: <ul style="list-style-type: none"> <li>Fumes/Dusts?</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Cooking and other food experimentation processes may result in smoke or fumes causing coughing etc.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure appropriate control measures are implemented e.g. local exhaust system, face masks, good housekeeping practices, appropriate ventilation etc.</li> </ul>	Low

## 4. Risk Assessment Signoff

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Authorised By: Damon Minotti	Signature: 	Date: 20.06.2024

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