

Sample Learning Activities and Assessments

Engineering Technical Literacy		
Learning Outcome	Learning Activity	Assessment
Students will be able to prepare and deliver an oral presentation on a technical subject, for a given audience and with an appropriate visual aid.	<p>Class discussions (e.g. small group with feedback to full group, padlet on big screen etc.) around what makes a good presentation, watch and analyse variety of presentations (sourced from TED?), lecturer facilitated process to summarise and formalise results of class discussions, practicing with peers and small groups, peer and lecturer feedback.</p> <p>Think, peer, share around levels of formality and other audience characteristics.</p> <p>Activity where students consider different given audiences and evaluate important characteristics and consider implications for presentation.</p> <p>Facilitated summarising and formalising of class discussions.</p> <p>Analysing real world examples (Try to source from industry!!), TED talks, Death by power point TED talk, class discussions.</p> <p>Computer sessions where students work on developing a visual aid for their presentation with lecturer and peer feedback (definitely for individual, possibly for group if time allows).</p> <p>Resources: PowerPoint Basics New slides Inserting images Slide layout and design Hyper links Text boxes Starting Presentations Different save formats How to navigate between slides</p>	<p>Summative Students will be assessed on their ability to prepare and deliver oral presentations.</p> <p>Individual – non technical topic of choice to develop skills.</p> <p>Group- Technical topic group has researched as a collective, section per speaker, receive combination of individual and collective marks.</p> <p>Formative Peer and lecturer feedback during all learning activities.</p>

Engineering Fundamentals		
Learning Outcome	Learning Activity	Assessment
Students will be able to sketch (force) vector triangles/polygons and draw vector diagram	Small Group Activity: Student on roller chair. Two (or 3) others pull with ropes at various angles. Resultant motion in direction of resultant force. If possible, sketch force and motion arrows with chalk on the floor. Transfer to board and develop to vector addition procedure.	
Students will be able to define and apply the concept of “moment” in an engineering context.	Small Group Activity: Upturn one desk on top of another. Two students push horizontally on the desk - first concurrently (in-line). Describe the motion, or reason for no motion. Then push with equal effort but non-concurrently and describe the motion. Vary distances and forces. Discuss effects of changes. Class discussion: get from carpentry a large (stiff) plank and a block to act as a fulcrum. Use students as loads and various distances from fulcrum to develop equilibrium of moment's ideas.	
Students will be able to list and explain sequential relationship of major components of the NZ Electricity system (MEN) and describe some of its safety features.	Individual Activity: Each student researches, selects and presents one safety measure or one generation method to class. Create a wiki based on this. Online mapping / matching activity – ‘building’ the system with appropriate components, voltages, and supply to users.	Summative Research assignment to produce an overview of the MEN system and its safety features.
Students will be able to demonstrate and apply knowledge of hazards, personal safety, safety procedures and equipment on engineering worksites.	Identify hazards in images or given scenarios, identify PPE and its uses, hazards based around a Material Safety Data Sheet, identifying different warning signs and their meanings. Small group practice using hand and power tools, take turns to use and others check all safety procedures are followed.	
Students will be able to demonstrate and apply knowledge of three-phase circuit theory.	Calculations involving a three-wire star load and four-wire star configuration with neutral impedance.	Students set up circuits and take measurements; - Star connected supply and delta connected load (R, R-L and R-C load)

Cookery		
Learning Outcome	Learning Outcome	Learning Outcome
Monitor food safety and SOP practices within a variety of hospitality environments	<p>Activity 1: Self-assessment review quiz (how much do you remember about food safety?).</p> <p>Activity 2: Eye spy during practical in kitchen (students need to identify incorrect procedures or food safety infractions and take corrective action) – debrief at end of practical (Note: this is an ongoing activity).</p> <p>Note: food safety and SOP to be repeated on ongoing basis throughout course.</p>	<p>Formative: self-assessment review quiz</p> <p>Formative Ongoing performance for identifying food safety and SOPs.</p>
Create a work plan for a hot and cold dish, a pastry and a baked good, in a commercial kitchen context, that uses complex preparation and presentation cooking methods.	<p>Activity: Give student a dish then write a recipe with specifications and someone else cooks the dish; students provide feedback on accuracy of recipe instructions and specifications. Recipes to be used for student flat cookbook. Students to take photos and present a standardized recipe for formative feedback.</p>	<p>Formative Students produce standardized recipe and have it reviewed by peer for feedback on the following: clarity of instructions, accuracy of ingredient list and specifications.</p>
<p>Select and use the appropriate methods of cooking and apply the necessary cooking techniques to produce complex hot and cold dishes, pastries and baked goods in a commercial kitchen.</p> <p>Create a work plan for a hot and cold dish, a pastry and a baked good, in a commercial kitchen context, that uses complex preparation and presentation cooking methods.</p>	<p>Activity: Set Three course meal Students produce given larder, hot kitchen and dessert dish that covers a full range of Methods of Cooking. Students assessed on work plan. OP staff assess methods of cooking, industry chefs assess plating, taste and presentation of food.</p>	<p>Summative Street Food Students research recipe, prototype, feedback and iterate, write standardized recipes, cook and present food.</p> <p>Student assessment on methods of cooking and the recording of the prototyping sessions and how dish has been improved. Formative feedback from peer and lecturers. Complete daily diary for food control plan.</p>
<p>Select and use the appropriate methods of cooking and apply the necessary cooking techniques to produce complex hot and cold dishes, pastries and baked goods in a commercial kitchen.</p> <p>Create a work plan for a hot and cold dish, a pastry</p>	<p>Activity 1: Produce a range complex dish using a range of the MOCs for larder, hot and cold dishes, pastries and baked goods. Pre-set recipes. Students working in teams of three/four. Chef de partie (demi chef) responsible for work plan, working to time line and de-briefing of session. Chef de partie provide constructive feedback on chef's performance.</p>	<p>Formative student feedback on chef de partie performance and use of work-plans</p> <p>Summative Practical Test 10 % Produce, from standardized recipes, a range of bakery and larder dishes that will form part of a Farmers Market. Students to present workplan, calculate yields and monitor and maintain consistency of products being presented from pre-prepared examples.</p>

<p>and a baked good, in a commercial kitchen context, that uses complex preparation and presentation cooking methods.</p>		
<p>Describe the Kitchen Management Processes used to manage a kitchen and how they are connected to the kitchen context</p>	<p>Activity 1: Visit from health officer to discuss food safety.</p> <p>Activity 2: Run a Food Safety Audit and ensure Plan is being followed within Polytechnic - Develop standardized recipes, prep lists and station check list for a section of poly kitchen for a service. Implement, get feedback, reflect and make recommended changes.</p> <p>Activity 3: Students present kitchen organization systems from work and discuss.</p> <p>Activity 4: Develop own templates for organizational systems.</p> <p>Activity 5: Identify different management styles, identify the concept, customer base, kitchen needs, determine price point, food cost percentage, cost dish, identify price fluctuations, prototype, iteration from their work experience. This will be assessed.</p> <p>-Students conduct a SWOT (strengths, weaknesses, opportunities, threats) about their own abilities – need to reflect.</p> <p>Activity 6: Observation – chefs to spend a day with a local supplier and stores person at poly. Write a report on what work flow systems work and what doesn't – <i>reflection</i> on what they perceive as strengths and weaknesses of processes.</p> <p>Activity 7: Working in the polytechnic stores and prepare stores trolleys and Place orders, receive and store goods, and prepare.</p> <p>Activity 8: Visit a Trade shows to achieve a specific goal – e.g. kitchen design, suppliers for a dish, cost chef uniform etc.</p>	<p>Summative Assignment: Kitchen Management (15%)</p> <p>1) Identify the kitchen and management process in your workplace experience and compare and contrast to systems at OP Develop the one of the following SOP for your work experience placement that you can justify needs refinement. Present to head chef for feedback, iteration hand in for marking e.g rosters, receiving goods. Cleaning schedules, staff induction and training, appraisals, stock taking, standardized recipe</p> <p>2) Present a full analysis of the work experience placement including establishment Location map, competition analysis, establishment concept and decor, target market, advertising</p> <p>3) Describe, what are the Kitchen context and management styles of the kitchen, what best suits the style and personality. List recommendations for changes.</p>