

PRODUCT & SPATIAL DESIGN (PSD) – NCEA L1

Program of Learning 2024

Head of Subject: Emma Beech				
Entry criteria: There are no prerequisites for entry into Level 1 however a high level of visual literacy is expected, and it is desirable for you to have competency with using Digital Technologies.				
Programme Description	<p>Students can achieve 15 credits towards NCEA Level 1 and may gain an endorsement of Merit or Excellence in the subject. This is a challenging, design-focused course, with creative elements. It has a clear pathway through to Scholarship in Y13 and would suit any student interested in a Design focused career, such as Product design, Architecture, Landscape Design or Design Engineering.</p> <p>Visual communication is a set of visual literacy skills that allow designers to think about, evaluate and appropriately present design ideas and outcomes.</p> <p>Product & Spatial design encompasses the interrelated strands of design thinking, visual communication, and design influences. Design thinking consists of ideation, exploration, progression, and communication of design ideas into potential outcomes that serve a specific purpose, provide innovative possibilities, and can be informed by design influences and a designer's perspective.</p> <p>Product design focuses on the development of tangible items that have a specific function within people's everyday lives. It is about understanding the needs of people and how they will interact with the product. Products use visualisation methods of 2D or 3D forms to show design ideas. Product design may use anthropometric and ergonomic data to inform the designs to meet the needs of the user.</p> <p>Spatial design is about the designing of three-dimensional spaces in terms of how they are experienced, occupied, or used by people. These spaces can range from those defined by walls and physical elements to those more permeable and determined by ritual, activity, or occupancy. Spatial design incorporates concepts from architecture, interior design, landscape architecture, and urban design.</p> <p>Visual communication addresses how design ideas and outcomes are appropriately presented to the viewer. Design ideas and outcomes are expressed in a manner that displays the learner's thoughts, allowing for engagement, feedback, and collaboration.</p> <p>CAD (Computer Aided Design) related skills will be an integral aspect of the course, aiding the development and the presentation of final design solutions.</p>			
AS No.	Descriptor	Level	Assessment	Credits
92000	Generate product or spatial design ideas using visual communication techniques in response to design influences	1	Internal	5
92001	Use representation techniques to visually communicate own product or spatial design outcome	1	Internal	5

92002	Develop product or spatial design ideas informed by the consideration of people	1	External	5
92003	Use instrumental drawing techniques to communicate own product or spatial design outcome	1	External Optional	5

Where does this course lead:

This course leads onto Level 2 Design and Visual Communication

Topic framework	Learning outcomes	Evidence of learning	Resources
<p>2 Internal assessments & 1 External assessment. To include:</p> <p>Spatial Design – ‘People Pod’</p> <p>Product Design – ‘Sensory Toy’</p> <p>The course consist of four hours per week for practical and theory tasks.</p>	<p>Understand</p> <ul style="list-style-type: none"> Understand that the purpose of design is to enhance people’s lives and their environments using aspects of kaitiakitanga, hauora, alofa, and empathy. Understand how Design and Visual Communication impacts end users by considering the following mātauranga Māori principles: kotahitanga, whanaungatanga, manaakitanga, wairuatanga, and tikanga. Understand the whakapapa of a design heritage. Understand that all ideas have value through critique to make decisions. Understand how to use appropriate visual communication techniques to generate and explore ideas beyond first thoughts. Understand the design principles of aesthetics and function and how to apply those in their own design thinking. <p>Know</p> <ul style="list-style-type: none"> Students will know how to generate ideas and design innovative outcomes. Students will know how to use visual communication techniques to generate conceptual design ideas. Students will know about and use appropriate visual communication techniques for the communication of design ideas and outcomes. <p>Do</p> <ul style="list-style-type: none"> Students will explore and consider design influences, design tikanga, practices, principles, and techniques from te ao Māori and indigenous cultures within Design and Visual Communication. Students will engage with decision-making that is connected to people, places, cultures, and design knowledge in developing design outcomes. Students will develop good practice in the attribution and acknowledgement of sources when using third-party content. Students will develop the practice of generating design ideas that explore possibilities beyond first thoughts. Students will use both divergent and convergent thinking to achieve successful outcomes. Students will develop visual skills and techniques to communicate details of design ideas and outcomes. Students will identify and use design principles, aesthetics, and functional qualities to inform their design ideas and outcomes. Students will develop visual skills and instrumental techniques to communicate details of design ideas and outcomes. 	<p>Ongoing teacher feedback & feedforward.</p> <p>Ākonga involvement in discussions, class critiques and activities.</p> <p>Practical performance</p> <p>Ākonga reflections</p>	<p>OneNote</p> <p>Physical exemplars provided as/when necessary</p> <p>Drawing exercises & resources available as/when needed</p>

	<ul style="list-style-type: none"> • Students will develop skills in visual techniques to generate design ideas, such as quick sketches, sketch models, fast computer models. • Students will use both divergent and convergent thinking in developing design outcomes. • Students will explore design possibilities that lead to the generation of interesting ideas. • Students will show an understanding of aspects of function and use. • Students will use visual communication skills and presentation techniques to communicate a design idea or outcome. • Students will develop visual communication skills to explore design ideas and thinking in a context. • Students will develop visual skills and techniques for generating and exploring design ideas. • Students will use visual communication and visual presentation techniques to represent the qualities of design ideas and outcomes. 		
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Rangi Values	Graduate Dispositions
<p>Respect</p> <ul style="list-style-type: none"> • Respect shown to design tikanga, and practices from te ao Maori and indigenous cultures. • Respectfully develop an understanding of the people and places students design for. • Show respect and consideration of the ideas of other students when discussing ideas during class critiques. • Give fair acknowledgement to the designers whose work students draw from, reimagine, and are inspired by. <p>Arhoa</p> <ul style="list-style-type: none"> • Build from each other's strengths and talents with respect and empathy. • Engage in critical inquiry to understand and empathize with the user to better meet their needs. • Ākonga can examine, critique, and be influenced by the perspectives and inputs of others in a supportive, and collaborative learning environment. <p>Endeavour & Enthusiasm</p> <ul style="list-style-type: none"> • Develop skills and confidence in presenting ideas and opinions to peers, community, whānau, and the potential users of design outcomes. • Students will develop resilience and confidence through feedback and critique of design decisions, reframing 'mistakes' as valuable learning opportunities. Over time, students will be able to convey their personal aspirations with a clearer vision of the pathways available to them as designers. <p>Generosity of Spirit</p> <ul style="list-style-type: none"> • Practice collaboration and critique peers constructively within the learning environment. • Consider the ideas of other students. 	<p>Be You!</p> <p>Product & Spatial design encourages students to explore how designers bring their own unique voice that draws from their personal experiences, cultures, values, and perspectives as well as those of other people, with particular attention given to personal perspectives. Students are encouraged to share their personal perspectives, background stories and creative heritage they bring to their work.</p> <p>Be the change</p> <p>Product & Spatial design encourages students to develop connections with their audiences and users to resolve issues in ways that translate into valuable industry skills. Students of Product & Spatial design are encouraged to design for their communities and to see the potential lying in everyday situations and environments. Ākonga will ask questions, propose scenarios, and reframe perceptions to generate ideas while using design tools and technologies. Students will engage with hands-on, practical exercises which will allow them to think about the function and purpose of design outcomes. They will learn about 'how stuff works' and how old design ideas can be built upon to inspire and create innovative new solutions.</p> <p>Belong</p> <p>Understand that the purpose of design is to enhance people's lives and their environments using aspects of kaitiakitanga, hauora, alofa, and empathy. Product & Spatial design students will engage with decision-making that is connected to people, places, cultures, and design knowledge in developing design outcomes. Students will understand that collaboration and teamwork can inspire new ideas.</p>

- Build from each other's strengths and talents with respect and empathy.

Integrity

- Connect with place and the whakapapa of the people they are designing for.
- Develop the confidence to reflect on and commit to their ideas.
- Know when to take risks and when to follow established procedure to achieve the best results.
- Take ownership of their own processes and ways of working, including the curation of their design portfolios.

Literacy

A full subject specific vocab list is provided to students.
Ongoing discussion and explanation of subject specific literacy throughout the project as and when needed.

Connections

Design and Visual Communication integrates with the other Technology subjects of Digital Technologies, Computer Science, and Materials and Processing Technology. Students who take more than one Technology subject will have the opportunity to further refine their design thinking and to apply it in diverse contexts.

Knowledge from the Learning Areas of Science and Mathematics and Statistics will support students in their development of ideas and provide a good understanding of materials and physical principles when designing for fit for purpose outcomes.

The subjects of History, Pacific Studies, Geography, and Social Studies will support students to meaningfully incorporate their learning of place into their design ideas.

Design and Visual Communication connects well with the Social Sciences Learning Area, with a focus on finding solutions that work for people and the environment, while at the same time, incorporating historical or culturally-based knowledges.

Health Studies will support the development of design ideas that seek to improve others' wellbeing and that keep considerations of people at the centre of their design thinking.

The creative skills developed in Visual Arts will complement those learnt in Design and Visual Communication and will support students to develop their ability to communicate ideas visually in different contexts.

Assessment

Ongoing formative assessment throughout major design projects.
Summative assessment on completion of two Internal assessments.
1 External assessment digitally sent to NZQA marker in October.
End of Term 1 Progress report.
Written report to parents end of Term 2.