

DESIGN AND VISUAL COMMUNICATION: VISUAL COMMUNICATION

Visual communication refers to the effective communication and presentation of design ideas using modelling and graphic design techniques. Initially students learn to communicate and present their design ideas and information by applying 2D and 3D visual communication techniques such as sketching, rendering, mock-ups, digital drawing and modelling, annotations, instrumental, templates, collage, overlays. Students progress to effectively and clearly applying complex and high quality visual techniques and knowledge that communicate a story to an audience - the intent of their design ideas.

	LEVEL 6	LEVEL 7	LEVEL 8
LO	<i>Demonstrate understanding of and skills in fundamental visual communication techniques</i>	<i>Demonstrate understanding of and skills in advanced visual communication techniques to visually communicate and present detailed visual information</i>	<i>Demonstrate understanding of and skills in complex visual communication techniques to visually communicate and promote the intent and details of design ideas</i>
TEACHER GUIDANCE	<p>To support students to demonstrate understanding of, and skills in, fundamental visual communication techniques at level 6, teachers could:</p> <ul style="list-style-type: none"> Support students to develop competency in 2D and 3D drawing techniques (eg, oblique, isometric, and planometric, which includes freehand sketching and instrumental drawing) Support students to develop competency in 2D sketching and instrumental drawing techniques (eg, multi-view orthographic drawings showing in-depth information such as hidden detail, surface development, and geometric construction) Support students to develop competence in applying drawing techniques: quick rendering, crating, line hierarchy Support students to develop skills in rendering to communicate visual information of materials, how light falls on an object, how shadows are created Support students to develop competency in using drawing instruments (including computer programmes) to create instrumental 2D and 3D drawings incorporating conventions such as line weights, dimensioning, scale, reference lines, and geometric construction Guide students to understand how the use of media, modes (such as 3D mock-ups, digital modelling, photography) and drawing equipment are 'key' for communicating and presenting visual information. Support students to develop an understanding about compositional principles of layout, visual impact and typography (as shown in different designers work) and how these can be applied to visually communicate designs. 	<p>To support students to demonstrate understanding of, and skills in, advanced visual communication techniques to visually communicate and present detailed visual information at level 7, teachers could:</p> <ul style="list-style-type: none"> Support students to develop an appreciation of aesthetic and functional qualities in a design, and techniques for effectively visually communicating these qualities. Support students to develop visual communication techniques such as sketching, rendering, modelling, and using digital media. Support students to develop advanced 2D freehand and instrumental drawing techniques (eg, auxiliary views, sectional views, exploded, and assembly), to communicate design features. Support students to understand how multiple drawings communicate details of shape and form. Support students to develop advanced 3D freehand and instrumental drawing techniques (such as one- and two-point perspective projection and isometric projection). Support students to understand how media, drawing equipment and layout are 'key' for effectively presenting visual information Support students to develop skills in using modes and media to highlight design ideas. Support students to develop skills associated with applying compositional principles such as proximity, alignment, hierarchy, positive and negative space when presenting design ideas. 	<p>To support students to demonstrate understanding of, and skills in, complex visual communication techniques to communicate and promote the intent and details of design ideas at Level 8, teachers could:</p> <ul style="list-style-type: none"> Support students to understand how to select and use visual communication techniques to best communicate the qualities and intent of design ideas. Support students to understand the integration of different drawings/models for the effective communication of complex visual information. Support students to develop visual communication strategies (such as abstraction, re-combination, exaggeration, transformations and deconstruction) for re-generating design ideas. Support students to understand the selection and use of presentation techniques and formats. Support students to understand the qualities of an exhibition space or setting and the needs of the viewer to best present a design outcome. Support students to develop using advanced media techniques and digital technologies. Support students to understand how a set of working drawings communicate production details of design ideas. Support students to develop a cohesive set of drawings and/or models.
INDICATORS	<p>Students can:</p> <ul style="list-style-type: none"> create 2D and 3D freehand sketches that show in-depth design features in proportion relative to the context of the design brief to convey the intent of the design ideas. produce accurate instrumental 2D drawings that show in-depth information about technical features of a design produce accurate paraline drawings that show in-depth information about design features skilfully apply rendering techniques to convincingly communicate shape and surface qualities, enhancing the realistic representation of design qualities to an audience use rendering techniques to communicate the form of design ideas. skilfully plan, select and apply presentation skills that are of a high quality showing accurate layout skills, and visual impact to tell a story. 	<p>Students can:</p> <ul style="list-style-type: none"> communicate their design ideas using techniques that explore both identifiable aesthetic and functional details of a design; apply techniques such as sketching, modelling, rendering, collage, overlays and digital media produce a set of instrumental or computer-related 2D working drawings showing technical details that indicate shape and form – these working drawings show the important design features of the item being communicated, such as parts and how they assemble, sizes or details of hidden parts (sections) use appropriate engineering and architectural conventions correctly produce perspective instrumental projection drawings (parallel and/or angular) that communicate design features and the associated details. (such as spatial drawings: window framing, door handles, and engineering: webs, holes, fasteners apply instrumental projection conventions: picture plane, station point, eye level lines, ground level lines, vanishing points, height lines select a view point that enables the design features of an item to be shown. select graphic modes and media, and apply compositional principles (eg, proximity, alignment, hierarchy, positive and negative space) that best present the design features of an item being communicated appropriately present visual information that includes consideration of the design context (eg, spatial design, product, landscape) and presentation context (eg, location, audience). 	<p>Students can:</p> <ul style="list-style-type: none"> apply visual communication strategies that aid divergent design thinking to enable the creative and analytical interrogation and re-generation of design ideas produce a visual presentation that demonstrates the understanding of compositional principles, modes and media, and the relationship between the presentation and its context (eg, location, viewer, content) use specialist spatial design visual communication techniques and approaches (such as architectural drawing and rendering, models, fly-through animation) to express spatial design ideas use specialist product design visual communication techniques and approaches (such as industrial design drawing and rendering, models, moving-part animation) to express product design ideas produce a set of related 2D & 3D working drawings and/or models that show details of components and information related to construction and assembly
AS	<p>AS91063 Design and Visual Communication 1.30 <i>Produce freehand sketches to communicate own design ideas</i></p> <p>AS91064 Design and Visual Communication 1.31 <i>Produce instrumental, multi-view orthographic drawings that communicate technical features of design ideas</i></p> <p>AS91065 Design and Visual Communication 1.32 <i>Produce instrumental paraline drawings to communicate design ideas</i></p> <p>AS91066 Design and Visual Communication 1.33 <i>Use rendering techniques to communicate the form of design ideas</i></p> <p>AS91069 Design and Visual Communication 1.36 <i>Promote an organised body of work to an audience using visual communication techniques</i></p>	<p>AS91337 Design and Visual Communication 2.30 <i>Use visual communication techniques to generate design ideas</i></p> <p>AS91338 Design and Visual Communication 2.31 <i>Produce working drawings to communicate technical details of a design</i></p> <p>AS91339 Design and Visual Communication 2.32 <i>Produce instrumental perspective projection drawings to communicate design ideas</i></p> <p>AS91343 Design and Visual Communication 2.36 <i>Use visual communication techniques to compose a presentation of a design</i></p>	<p>AS91627 Design and Visual Communication 3.30 <i>Initiate design ideas through exploration</i></p> <p>AS91628 Design and Visual Communication 3.31 <i>Develop a visual presentation that exhibits a design outcome to an audience</i></p> <p>AS91631 Design and Visual Communication 3.34 <i>Produce working drawings to communicate production details for a complex design</i></p>
	Level 1 DVC Technologies standards & assessment resources	Level 2 DVC standards & assessment resources	Level 3 Technology achievement standards & assessment DRAFT

DESIGN AND VISUAL COMMUNICATION: GRAPHICS PRACTICE

Graphics practice refers to the creative application of drawing and design knowledge and techniques to develop conceptual outcomes that address a brief, or a technological outcome of a graphical nature. The brief used may be provided to the students or developed by the students as part of their practice. Quality outcomes resulting from graphics practice rely on the selection of appropriate and well-executed drawing techniques, and presentation methods that allow conceptual designs to be communicated effectively. Initially students learn to apply drawing and design knowledge and techniques to visually communicate design ideas when developing conceptual outcomes to address a brief, through generating, testing, and evaluating design ideas. This should progress to students learning to undertake critical analysis of a conceptual outcome against the brief to ensure justify its potential fitness for purpose.

	LEVEL 6	LEVEL 7	LEVEL 8
LO	<i>Demonstrate ability to explore and develop design ideas by applying visual communication and design knowledge and techniques in response to a brief</i>	<i>Demonstrate ability to explore and develop design ideas by applying specialist visual communication and design knowledge and techniques in response to a brief</i>	<i>Demonstrate ability to explore, develop and extend design ideas by integrating specialist visual communication and design knowledge and techniques in response to a brief</i>
TEACHER GUIDANCE	<p>To support students to explore and develop design ideas by applying visual communication and design knowledge and techniques in response to a brief, at level 6, teachers could:</p> <ul style="list-style-type: none"> • Provide opportunity for students to develop design knowledge and a range of drawing techniques that can be used to respond to a brief. • Provide opportunity for students to explore, generate, and refine design ideas informed by principles of aesthetics and function • Provide opportunity for students to develop design ideas to a conceptual design informed by research and testing. • Provide opportunity for students to incorporate design judgements when developing design ideas and undertaking ongoing evaluation during the development of a conceptual design. • Provide opportunity for students to present conceptual designs to an audience that visually communicate the details of design ideas in response to the design brief. 	<p>To support students to explore and develop design ideas by applying specialist visual communication and design knowledge and techniques in response to a brief, at level 7, teachers could:</p> <ul style="list-style-type: none"> • Provide opportunity for students to generate, develop and communicate design ideas informed by appropriate research (eg. relevant testing, existing design examples, identified design characteristics of a design movement or era). • Provide opportunity for students to use presentation techniques that draw on compositional principles (eg, proximity, alignment, hierarchy, use of positive and negative space), graphic modes (eg, digital, photography, animation, conventional sketching and drawing methods) and media (eg, pastels, collage, card and digital media, marker pens) to present design ideas and conceptual outcomes. • Provide opportunity for students to review and refine design ideas that incorporate specialist spatial design knowledge (eg, materials, processes; sustainability; environmental considerations such as climate, aspect, light) and graphic techniques (eg, architectural drawings, renderings, modelling) for inside and outside spaces in response to a brief. • Provide opportunity for students to review and refine design ideas that incorporate specialist product design knowledge (eg, materials, processes; sustainability; joining, fitting, fasteners, ergonomics, anthropometric data) and graphic techniques (eg, component drawings, sectioning, animation, renderings, modelling) in response to a brief. • Provide opportunity for students to incorporate design judgements in the development and ongoing evaluation of design ideas into a conceptual outcome. • Provide opportunity for students to explore a range of communication techniques to determine suitability for presenting design outcomes to different audiences. This should include opportunity to understand and use a variety of compositional principles, graphical modes, and media. 	<p>To support students to explore, develop and extend design ideas by integrating specialist visual communication and design knowledge and techniques in response to a brief, at level 8, teachers could:</p> <ul style="list-style-type: none"> • Provide opportunity for students to experiment and explore ideas through providing abstract or esoteric starting points and ongoing contexts. • Provide opportunity for students to generate, develop and communicate design ideas informed by research beyond the design situation (eg, not obviously connected to the design situation) and using relevant testing including modelling (2D and 3D physical and virtual mock-ups and models, animations, prototypes) and graphic techniques. • Provide opportunity for students to use presentation techniques that draw on compositional principles (eg, proximity, alignment, hierarchy, use of positive and negative space), graphic modes (eg, digital, photography, animation, conventional sketching and drawing methods) and media (eg, pastels, collage, card and digital media, marker pens) to present design ideas and conceptual outcomes • Provide opportunity for students to review and refine the aesthetic and functional qualities of a spatial design that incorporates specialist spatial design knowledge and tools (eg, ergonomics, mock-ups, market research, virtual modelling) and graphic techniques for inside and outside spaces, in response to a brief. • Provide opportunity for students to review and refine the aesthetic and functional qualities of a product design, incorporating specialist product design knowledge, and tools (eg, ergonomics, mock-ups, market research, virtual modelling) and graphic techniques, in response to a brief. • Guide students to respond and reflect upon design judgements in the development and ongoing critiquing of design ideas into a conceptual outcome. • Provide opportunity for students to match presentation format and construction procedures through consideration and selection of presentation techniques, viewer needs and the nature of the design outcomes being presented, and communicate design outcomes to an audience in response to the design brief. • Provide opportunity for students to evaluate conceptual outcomes against the brief, informed by wider conditions and factors related to the context, and justify how the outcome addresses identified opportunities and constraints.
INDICATORS	<p>Students can:</p> <ul style="list-style-type: none"> • explore and refine design ideas by considering possible alternatives; • integrate principles of aesthetics and function, and design judgements, in a coherent and connected way to develop design ideas; • convincingly communicate design ideas visually in accordance with the context specified in the design brief. 	<p>Students can:</p> <ul style="list-style-type: none"> • explore and refine design ideas that draw on spatial design knowledge; • explore and refine design ideas that draw on product design knowledge; • make design judgements on the positive and/or negative aspects of aesthetic and functional features of the design in response to the brief; • review and refine well-considered design ideas that incorporate specialist spatial design knowledge progressing towards an outcome; • review and refine well-considered design ideas that incorporate specialist product design knowledge progressing towards an outcome; • use presentation techniques, and the application of compositional principles, modes and media, to effectively present visual information. 	<p>Students can:</p> <ul style="list-style-type: none"> • explore diverse contexts beyond and within design situations to identify opportunities for potential design solutions • use modelling and graphic techniques to explore and refine design ideas as potential solutions for situations • communicate a variety of design ideas as potential solutions for the situation. • explore the possibilities of a range of potential design solutions within a design situation and the interrelationships that exist between them. • produce visual presentations that skilfully use compositional principles, modes, media, and presentation techniques to communicate a design outcome to the viewer. • explore design contexts to identify opportunities and constraints for refining a product and/or spatial design • clarify design ideas through an iterative refinement process that draws on specialist product and/or spatial design knowledge • communicate product and/or spatial designs that are justified against identified opportunities and constraints.
AS	<p>AS91068 Design and Visual Communication 1.35 <i>Undertake development of design ideas through graphics practice</i></p>	<p>AS91341 Design and Visual Communication 2.34 <i>Develop a spatial design through graphics practice</i> AS91342 Design and Visual Communication 2.35 <i>Develop a product design through graphics practice</i> AS91343 Design and Visual Communication 2.36 <i>Use visual communication techniques to compose a presentation of a design</i></p>	<p>AS91627 Design & Visual Communication 3.30 <i>Initiate design ideas through exploration;</i> AS91628 Design & Visual Communication 3.31 <i>Develop a visual presentation that exhibits a design outcome to an audience;</i> AS91629 Design & Visual Communication 3.32 <i>Resolve a spatial design through graphics practice;</i> AS91630 Design & Visual Communication 3.33 <i>Resolve a product design through graphics practice</i></p>
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DESIGN AND VISUAL COMMUNICATION: KNOWLEDGE OF DESIGN PRACTICE

Design practice focuses on developing conceptual designs in response to a brief. Knowledge of design practice includes understanding that designers identify the qualities and potential of design ideas in terms of the broad principles of design (aesthetics and function) and sustainability, and that they are influenced by societal, environmental, historical and technological factors.

Initially students learn about how design practice combines and prioritises different design elements and thought processes to initiate and develop ideas in a response to a brief, and how design and design thinking is a tool which is used to create new solutions to meet the needs of our society. Students progress to complex to learning about how design is a unique human activity of inquiry and action that fosters innovation and creativity by using design and design thinking as a tool to create new innovative solutions that meet the needs of our society and the global community, for the future.

	LEVEL 6	LEVEL 7	LEVEL 8
LO	<i>Demonstrate understanding of design principles and processes, and the work of influential designers</i>	<i>Demonstrate understanding of design movements or eras</i>	<i>Demonstrate understanding of approaches to design practice and the nature of designerly thinking</i>
TEACHER GUIDANCE	<p>To support students to develop understandings about design principles, approaches and the work of influential designers at level 6, teachers could:</p> <ul style="list-style-type: none"> Develop understandings of two principles of design (aesthetics and function) and of their derived elements; such as shape, form, rhythm, balance, proportion, colour, contrast, durability, stability, flexibility/rigidity. Investigate key designers to develop an understanding of their design work and its continued impact. Promote opportunities for students to investigate the design practice of different designers to initiate and develop their own ideas. Promote students to ask questions of a given brief and explore the constraints in creative ways and to look for new directions. 	<p>To support students to develop understandings about design movements and eras at level 7, teachers could:</p> <ul style="list-style-type: none"> Provide opportunity for students to understand how design elements are characterised in different design movements and eras. Ensure that students understand that the application (including their prioritisation) of design principles and elements is particularly susceptible to changes in fashion, taste, historical changes, technological advancements. Ensure that students understand that the development of designs does not occur in a vacuum that there are recognisable links and influences. Help students develop awareness of the visual motifs and concepts that identify a style, movement or era. Promote students to be design thinkers by putting people first and to imagine solutions that are inherently desirable and meet explicit needs. 	<p>To support students to develop understandings of approaches to design practice and the nature of designerly thinking, at level 7, teachers could:</p> <ul style="list-style-type: none"> Promote students to be creative thinkers by continual questioning and critiquing of the 'status quo' to expand design thinking and possibilities. Promote a variety of experiences for the purposes of initiating ideas Support students to develop an advanced knowledge of specialist spatial design, including the specific design tools used, specific technical knowledge and specific visual communication techniques and approaches. Support students to develop an advanced knowledge of specialist product design, including the specific design tools used, specific technical knowledge and specific visual communication techniques and approaches.
INDICATORS	<p>Students can:</p> <ul style="list-style-type: none"> select and research an influential designer identify and explain the aesthetic and functional characteristics of their chosen influential designer integrate aesthetic and functional characteristics of chosen influential designer when developing their own design ideas. 	<p>Students can:</p> <ul style="list-style-type: none"> investigate a design era or design movement and explain the aesthetic and functional characteristics of the design movement or era describe social factors such as cultural, historical, societal and technological, that influenced the design movement or era interpret and embed into their own designs characteristics identified in the chosen design era and movement show understanding that design does not develop in a vacuum, but is affected by the circumstances of the society in which it exists and serves (eg, Bauhaus is a response to the need for industrial growth after the First World War), and that the social, economic and political environment has a significant impact on establishing and evolving a designs movement. 	<p>Students can:</p> <ul style="list-style-type: none"> critique design ideas in relation to their given context and in comparison with other alternatives describe interaction of design elements and how design judgments reconcile the various considerations show understanding of specialist knowledge related to the various fields of spatial design show understanding of specialist knowledge related to the various fields of product design
AS	<p>AS91067 Design and Visual Communication 1.34 <i>Use the work of an influential designer to inform design ideas</i></p>	<p>AS91340 Design and Visual Communication 2.33 <i>Use the characteristics of a design movement or era to inform own design ideas</i></p>	<p>AS91627 Design and Visual Communication 3.30 <i>Initiate design ideas through exploration</i></p> <p>AS91629 Design and Visual Communication 3.32 <i>Resolve a spatial design through graphics practice</i></p> <p>AS91630 Design and Visual Communication 3.33 <i>Resolve a product design through graphics practice</i></p> <p>AS91631 Design and Visual Communication 3.34 <i>Produce working drawings to communicate production details for a complex design</i></p>
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