



Year 12 - DVC NCEA LEVEL 2

Course Outline 2018

Technology Dept.

Huntly College

What is Design and Visual Communication?

The term '**visual** presentation' is used to refer to the actual presentation of information through a visible medium such as text or images. Recent research in the field has focused on web **design** and graphically-oriented usability. Graphic designers also use methods of **visual communication** in their professional practice. In the DVC Level 1, 2, and 3 course students will 'tell a story' about how they attempted their architectural design brief, exploration of ideas, and finally the finished building.

Overview

DVC Year 9, Year 10, NCEA Level 1, 2 & 3 courses are available at HC. These courses are designed to develop the communication skills of students progressively.

The basic design and communication skills are taught in Year 9 & Year 10. These include the basic skills and knowledge of:

Sketch-up computer-aided design work.
Freehand sketching and rendering.
Shadows and shading

DVC LEVEL 1: Sustainable Shipping Container Sleep-out.

DVC LEVEL 2: Sustainable Art Science Museum. Design a sustainable chair.

DVC LEVEL 3: Unique Bach (sustainable). Design a sustainable chair.

Senior DVC students (NCEA L1 to L3) develop and explore several aspects of Architectural design cycle. The student portfolio includes considering the following:

- Research and an inspiration board
- A design era
- An influential designer/architect
- Biomimetics (mime nature)
- Location (choosing a building site)
- Ideation (generating design ideas)

- Consider the weather patterns and climate
- Sustainable features and functions (e.g. solar panels, wind turbines & water tanks, etc.)
- Freehand sketching (adding colour and rendering) with in-depth annotations.
- SketchUp-design work (computer generated)
- Assessing and evaluating the design
- Modifying and developing the original design (refining process)
- Final design

Portfolio

Every senior DVC student will complete a 35- to 45-page portfolio (A3 size). This process of sketching, drawing, and printing happens throughout the year. The portfolio is created on Google Slides and shared with the DVC teacher. The portfolio is a combination of printed Google Slides and freehand sketches with annotations. The deadline for handing in the portfolio is the end of September 2017.

Externally assessed achievement standards

After completion of the DVC portfolio by each student – in September of each year- the Externally assessed achievement standards are finally assessed by examination in November and marked by independent markers and not HC teachers. This is the result that will appear on your record of learning which is usually received by the 15 th of January the following year.

Internally assessed achievement standards

All of the internal achievement standards are assessed by the DVC teacher (Mr van Zyl) at school and then cross marked by another teacher. These assessments schedules are modelled on the assessment resources at TKI and NZQA website. See the student shared folders for more details on the assessment schedules. PATH: Students shared>Vz>DVC L 1/2/3

Assessment (re)scheduling and deadlines

The DVC teacher will mark internal DVC work by September every year. The reason for such late assessment/marking is that the full complete portfolio of each student is required to do the marking. To have work re-assessed communicate this request to the DVC teacher

Assessment Schedules:

Assessment ‘grading’: What is needed to gain a ‘merit’ or ‘excellence’ grade for an achievement standard?

This will vary depending on the subject. However, as a general guide:

- ‘achieved’ means that the student has gained the achievement standard by demonstrating elementary level skills or knowledge
- ‘achieved with merit’ means that the student has gained the achievement standard by demonstrating intermediate level skills or knowledge

- 'achieved with excellence' means that the student has demonstrated highly developed skills or knowledge.

Here are some examples of achievement criteria for some of the achievement standards for biology, history and graphics (DVC) at various NCEA levels:

	Achieved	Achieved with merit	Achieved with excellence
Level 2 Biology	Describes biological concepts and processes	Explains biological concepts and processes	Discusses biological concepts and processes
Level 3 History	Demonstrates an understanding of an historical idea	Demonstrates an informed understanding of an historical idea	Demonstrates an informed and perceptive understanding of an historical idea
Level 3 Graphics (DVC)	Plans and produces a presentation to communicate design ideas	Plans and produces an effective presentation to communicate design ideas	Plans and produces an effective, high-quality presentation to communicate design ideas

See the NCEA website for more details on each Achievement standard. Search the Achievement standard number (Google). See a copy(text) of *Achieved*, *Achieved with Merit* and *Achieved with Excellence* description on the NZQA website below:

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Produce freehand sketches that communicate design ideas involves (achieved):

using freehand sketches to describe design features. Describing includes but is not limited to showing form, shape and function.

Produce freehand sketches that clearly communicate design ideas involves (merit):

creating freehand sketches that describe design features in proportion showing detailed information about design features. Detailed information typically includes but is not limited to details of construction, structure, function and aesthetics.

Produce freehand sketches that effectively communicate design ideas

(excellence) involves:

showing in-depth information about the intent of the design features. In-depth information refers to a body of related sketches that include but are not limited to exploded, sectional and sequential views that explain design features.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
● Produce freehand sketches that communicate design ideas.	● Produce freehand sketches that clearly communicate design ideas.	● Produce freehand sketches that effectively communicate design ideas.

Source: <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/graphics-dvc/levels/>

Freehand sketches

All students have to include freehand sketches and some overlays (tracing paper). Mediums and Media: White (size A3) drawing paper, soft pencil (6B), pro-markers (colours vivids), and any image cut and pasted from magazines, books, articles, etc. onto the pages.

Templates, Instructions, Design Briefs, Course Summaries and Tutorials (Links)

Open the STUDENT SHARED FOLDER and search DESIGN AND VISUAL COMMUNICATION. All the templates, exemplars, briefs, course outlines and more are available in this folder.

Level 2 NCEA DVC course components include:

Externally and Internally assessed components – see the summary from the Choices booklet 2018 below.

Primary Industries (PI)	Service Industries (SI)	Social & Community Services (SCS)	Manufacturing & Technology (MT)	Construction & Infrastructure (CI)	Creative Industries (C)	Academic Pathway (A)	Literacy (L)	Numeracy (N)
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NCEA LEVEL 2

Design and Visual Communication

What will I learn?

The course builds on the skills covered in the DVC Level 1 course and encourages experience in areas such as research, critical design thinking, and Sketch-up design software. Areas covered in this course are sustainable architecture, design eras (choice of student), influential designers, bio-mimetics (miming nature), site location and assessment, site plans and geo-location, freehand sketching, third angle orthographic projection drawings, and the interpretation of charts (rainfall, wind speed, etc.),

Students use a design brief given by the teacher, sustainable Art Science Museum design, and they are challenged to create a sustainable Art Science Museum for a specific location. The process involves research, ideation (exploring ideas), and location of a building site, stakeholder feedback, and modifications to the design. The climate and weather patterns are considered for the location and design of sustainable features and functions. These include features to harvest sun, water and wind energy, for example, wind turbines and solar panels. Students also have to consider the choice of building materials to provide a good heatsink for the building (e.g. Passive solar design).

A set of underpinning processes and strategies are included. The knowledge, skills and understandings developed in this learning process are:

- Sustainable architectural practice (harvesting water, wind and sun energy)
- Research on design eras and influential designers (choice of student) to inform own design ideas
- Site location: selection, assessment, and evaluation
- Constant stakeholder feedback (friend or teacher)
- Modifications (improvements) to the Art Science Museum design

How is the course assessed?

Internal Standards

AS/US	NZQA Code	Short title	Credits	PI	SI	SCS	MT	CI	C	A	L	N
91340		Design movement or design era	3						3		3	
91341		Develop a spatial design	6				6	6	6		6	
91343		Compose a presentation	6				6	6	6			
91342		Product design – Graphics					6	6	6			
91619		Technical area (Generic Technology Level 3). E.g. electronics in a building.					4	4	4			

External Standards

AS/US	NZQA Code	Short title	Credits	PI	SI	SCS	MT	CI	C	A	L	N
none												

Course cost:

- No course costs

Previous study:

Design and Visual Communication (DVC) Level 1 recommended.

Next steps:

NCEA DVC Level 3

Entry will be dependent on HOD and Dean approval. At least 10 Literacy credits obtainable from a mixture of English standards gained in other subjects are required to be awarded the NCEA Level 1 certificate. Students should have passed as many of the external standards as possible, and aim for 18 credits or more to gain entry to Level 3 DVC.

Visit the DVC website: <http://williamvanzylDVCHC.co.nz/>

If you have any queries, please don't hesitate to contact the DVC teacher Mr van Zyl in room F 1. Email: williamv@huntlycollege.school.nz