



Newton Moore Senior High School Technology and Enterprise Year 10 Technical Graphics (CAD) and Photography 2016



Course Description – Semester One

Technical Graphics (CAD)

Technical Graphics provides students with an insight into Architecture, Engineering and product design. Students will be introduced to computer and mechanical drawing through a series of practical drawing activities. This course develops skills using software such as Auto Desk, Inventor, mechanical instruments, freehand sketching and rendering.

Technology Process

Students apply a technology process to create or modify products, processes, systems, services or environments to meet human needs and realise opportunities.

Investigating – Students investigate issues, values, needs and opportunities.

Designing – Students devise and generate ideas and prepare production proposals.

Producing – Students produce solutions and manage production processes

Evaluating – Students evaluate intentions, plans and actions

Information

Students design, adapt use and present information that is appropriate to achieving solutions to technology changes.

The Nature of Information – Students understand the form, structure, quality and purpose of information products and processes.

Students apply an understanding of the nature of information when designing and presenting information products and processes to meet a need.

Course Outline – Semester One

Week	Content
1	File types, Software history, origins, File structures. 2d drawing on computer, extruding.
2-3	Creating a computer working drawing including; <ul style="list-style-type: none">• Dimensions• Annotations• Sections

4-6	<p>Creating a computer working drawing including;</p> <ul style="list-style-type: none"> • Dimensions • Annotations
7-10	<p>Investigation, ideation, Production and response</p> <ul style="list-style-type: none"> • Measuring • Engineering • Vernier calliper use • Mock ups • Sustainability <p>Field sketching parts and assembly with sizes and annotations. Reverse Engineering parts.</p>
11 -16	Production and response presented using Autodesk Inventor 3d modelling software.
17 - 18	Combining all techniques above. Practice to create a workable 3d printed prototype
19-20	Course Survey, Finalisation of portfolios, launch pad investigation

This course outline may be subject to change, any changes will be communicated to students.

Assessment Outline – Semester One

Type of assessment	Due Date	Outcomes	Max Score	Weighting
Task 1: Camera (Producing)	Week 2	Technology Process	12	15%
Task 2: Pick Up Truck (Producing)	Week 4	Technology Process	12	15%
Task 3: Space Ship (Producing)	Week 6	Technology Process	12	20%
Task 4: Rocket Design Brief (Investigating)(Information)	Week 10	Information Technology Process	28	10%
Task 5: Rocket Design Brief (Designing) (Information)	Week 16	Information Technology Process	18	10%
Task 6: Rocket Design Brief (Evaluating) (Information)	Week 16	Information Technology Process	14	10%
Task 7: Rocket C.A.D Solutions (Producing)	Week 17	Technology Process	14	20%

The above weightings are intended to show the importance of each task. The allocation of a grade at the end of a semester is determined based on grade related descriptors issued by School Curriculum and Standards Authority.

Course Description – Semester Two

In Year 10, students use visual language and artistic conventions, in both written and practical work. They further develop and refine their ideas and techniques to resolve artworks by documenting the design, production and evaluation processes of their artworks. Students will extend their knowledge of art practices, such as, adaptation, manipulation, deconstruction and reinvention techniques, and use their understanding of a variety of art styles in the making of their 2D, 3D and/or 4D artworks. Students extend their knowledge and practise of safe and sustainable visual arts practice. Resolved artworks are exhibited and evaluated, with consideration to their own artistic intentions, personal expression, and audience.

Arts Ideas

Students generate arts works that communicate ideas.

Arts Skills and Processes

Students use the skills techniques, processes, conventions and technologies of the arts

Arts Responses

Students use their aesthetic understanding to respond to, reflect on and evaluate the arts

Course Outline – Semester Two

Week	Content
1-2	<p>Introduction, Rules, Passwords etc</p> <ul style="list-style-type: none"> • Class Rules • Discuss school policy on using information systems (school computer use policy), mobile phones at school and accessing social media websites at school. • Logging on/Passwords and use of Macs • Create folders for work. • Students create a cover page for their physical folders. • Create Powerpoint for work <p>Task 1 – Camera Basics/Revision</p>
3-5	<ul style="list-style-type: none"> • Introduction to Exposure <p>Task 2 - Exposure</p>
6-12	<p>Task 3 – Composition and Camera Techniques</p> <ul style="list-style-type: none"> • Point of View • Shadow • Panoramic • Motion Blur • Freezing

	<ul style="list-style-type: none"> • Panning • Black and White
13-14	Photoshop Tutorials Merging Improving Photos Improve Overexposure Improve Contrast Black and White Highlights Alter Depth of Field with a Digital Blur
15-19	Task 4 - Portrait Analyse and discuss Complete investigation activities Work through activities
20	Review and Feedback Completion of all outstanding tasks

This course outline may be subject to change, any changes will be communicated to students.

Assessment Outline – Semester Two

Type of assessment	Due Date	Outcomes	Max Score	Weighting
Task 1: Camera Basics /Revision	Week 2	Arts Responses	30	15%
Task 2: Exposure	Week 5	Arts Responses Arts Skills and Processes	48	25%
Task 3: Composition/Portfolio	Week 12	Arts Ideas Arts Responses Arts Skills and Processes	105	30%
Task 4: Portrait	Week 18	Arts Ideas Arts Skills and Processes	62	30%

The above weightings are intended to show the importance of each task. The allocation of a grade at the end of a semester is determined based on grade related descriptors issued by School Curriculum and Standards Authority.