

Design & Graphics

A / T / M

Cover Art provided by Canberra College student Aidan Giddings

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The ACT Senior Secondary System

The ACT senior secondary system recognises a range of university, vocational or life skills pathways.

The system is based on the premise that teachers are experts in their area: they know their students and community and are thus best placed to develop curriculum and assess students according to their needs and interests. Students have ownership of their learning and are respected as young adults who have a voice.

A defining feature of the system is school-based curriculum and continuous assessment. Schoolbased curriculum provides flexibility for teachers to address students' needs and interests. College teachers have an opportunity to develop courses for implementation across ACT schools. Based on the courses that have been accredited by the BSSS, college teachers are responsible for developing programs of learning. A program of learning is developed by individual colleges to implement the courses and units they are delivering.

Teachers must deliver all content descriptions; however, they do have flexibility to emphasise some content descriptions over others. It is at the discretion of the teacher to select the texts or materials to demonstrate the content descriptions. Teachers can choose to deliver course units in any order and teach additional (not listed) content provided it meets the specific unit goals.

School-based continuous assessment means that students are continually assessed throughout years 11 and 12, with both years contributing equally to senior secondary certification. Teachers and students are positioned to have ownership of senior secondary assessment. The system allows teachers to learn from each other and to refine their judgement and develop expertise.

Senior secondary teachers have the flexibility to assess students in a variety of ways. For example: multimedia presentation, inquiry-based project, test, essay, performance and/or practical demonstration may all have their place. College teachers are responsible for developing assessment instruments with task specific rubrics and providing feedback to students.

The integrity of the ACT Senior Secondary Certificate is upheld by a robust, collaborative and rigorous structured consensus-based peer reviewed moderation process. System moderation involves all year 11 and 12 teachers from public, non-government and international colleges delivering the ACT Senior Secondary Certificate.

Only students who desire a pathway to university are required to sit a general aptitude test, referred to as the ACT Scaling Test (AST), which moderates student scores across courses and colleges. Students are required to use critical and creative thinking skills across a range of disciplines to solve problems. They are also required to interpret a stimulus and write an extended response.

Senior secondary curriculum makes provision for student-centred teaching approaches, integrated and project-based learning inquiry, formative assessment and teacher autonomy. ACT Senior Secondary Curriculum makes provision for diverse learners and students with mild to moderate intellectual disabilities, so that all students can achieve an ACT Senior Secondary Certificate.

The ACT Board of Senior Secondary Studies (BSSS) leads senior secondary education. It is responsible for quality assurance in senior secondary curriculum, assessment and certification. The Board consists of nominees from colleges, professional bodies, universities, industry, parent/carer organisations and unions. The Office of the Board of Senior Secondary Studies (OBSSS) consists of professional and administrative staff who support the Board in achieving its objectives and functions.

ACT Senior Secondary Certificate

Courses of study for the ACT Senior Secondary Certificate:

- provide a variety of pathways, to meet different learning needs and encourage students to complete their secondary education
- enable students to develop the essential capabilities for twenty-first century learners
- empower students as active participants in their own learning
- engage students in contemporary issues relevant to their lives
- foster students' intellectual, social and ethical development
- nurture students' wellbeing, and physical and spiritual development
- enable effective and respectful participation in a diverse society.

Each course of study:

- comprises an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum
- is based on a model of learning that integrates intended student outcomes, pedagogy and assessment
- outlines teaching strategies which are grounded in learning principles and encompass quality teaching
- promotes intellectual quality, establish a rich learning environment and generate relevant connections between learning and life experiences
- provides formal assessment and certification of students' achievements.

Underpinning beliefs

- All students are able to learn.
- Learning is a partnership between students and teachers.
- Teachers are responsible for advancing student learning.



Learning Principles

- Learning builds on existing knowledge, understandings and skills. (Prior knowledge)
- 2. When learning is organised around major concepts, principles and significant real world issues, within and across disciplines, it helps students make connections and build knowledge structures. (Deep knowledge and connectedness)
- Learning is facilitated when students actively monitor their own learning and consciously develop ways of organising and applying knowledge within and across contexts. (Metacognition)
- Learners' sense of self and motivation to learn affects learning. (Self-concept)
- 5. Learning needs to take place in a context of high expectations. *(High expectations)*
- 6. Learners learn in different ways and at different rates.
 - (Individual differences)
- 7. Different cultural environments, including the use of language, shape learners' understandings and the way they learn.

(Socio-cultural effects)

- 8. Learning is a social and collaborative function as well as an individual one. *(Collaborative learning)*
- 9. Learning is strengthened when learning outcomes and criteria for judging learning are made explicit and when students receive frequent feedback on their progress.

(Explicit expectations and feedback)

General Capabilities

All courses of study for the ACT Senior Secondary Certificate should enable students to develop essential capabilities for twenty-first century learners. These 'capabilities' comprise an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum.

The capabilities include:

- literacy
- numeracy
- information and communication technology (ICT)
- critical and creative thinking
- personal and social
- ethical understanding
- intercultural understanding

Courses of study for the ACT Senior Secondary Certificate should be both relevant to the lives of students and incorporate the contemporary issues they face. Hence, courses address the following three priorities. These priorities are:

- Aboriginal and Torres Strait Islander histories and cultures
- Asia and Australia's engagement with Asia
- Sustainability

Elaboration of these General Capabilities and priorities is available on the ACARA website at <u>www.australiancurriculum.edu.au</u>.

Literacy

Students develop literacy as they learn how to communicate ideas, concepts and proposals to a variety of audiences. They read and interpret detailed written instructions technologies, often including diagrams and procedural writings such as software user manuals and design briefs. Students interpret online documentation and tutorial materials that support coding, prepare software instructions and write reports, project outlines, proposals and evaluations. They use computer-generated images to communicate product or systems design ideas to suit particular contexts and audiences. Students understand and use terminology specific to design and technology, in both written and oral forms, to communicate ideas about product or systems design.

Numeracy

Design and Graphics gives students opportunities to interpret and use mathematical knowledge and skills in a range of real-life situations. Students use number to calculate and create algorithms; interpret and draw conclusions from data; measure and record; and develop, refine and test concepts using computational thinking in decision-making processes. Students examine the usefulness of results and prepare validation plans for calculating outputs of digital solutions. They use code that enables manipulation of numerical data in digital solutions and apply appropriate mathematical concepts and thinking in programming. Students may use graphs, spreadsheets, diagrams, codes, and statistics to communicate technical data or systems information.

Information and Communication Technology (ICT) Capability

Design and Graphics enables students to develop an understanding of the characteristics of data, digital systems, audiences, procedures and computational thinking. They apply this understanding when they investigate, communicate and create digital solutions. Students learn to formulate problems, logically organise and analyse data, and represent them in abstract forms. Students use ICT when they investigate and analyse information, evaluate design ideas and communicate and collaborate online. They develop design ideas, generate plans and system diagrams to communicate their designs, and produce solutions using digital technologies.

Critical and Creative Thinking

Students develop capability in critical and creative thinking through challenging problems that do not have straightforward solutions. Students identify and deconstruct problems of interest, refine concepts and reflect on the decision-making process by engaging in systems, design and computational thinking. They identify, explore and clarify technologies information and use that knowledge in a range of situations. Students consider how data, information, systems and tools impact on our lives, and how these elements might be better designed and managed. Visualising possibilities, modelling and scoping solutions, designing and working with digital tools, equipment and software helps students to build their visual and spatial thinking, test hypotheses and to create solutions, products and services.

Personal and Social Capability

Students develop personal and social capability as they engage in project management and development in a collaborative workspace. They direct their own learning, plan and carry out investigations, and become independent learners who can apply design thinking, technologies understanding and skills when making decisions. Students develop social and employability skills through working cooperatively in teams, sharing resources and processes, making group decisions, resolving conflict and showing leadership.

Ethical Understanding

Students develop the capacity to understand and apply ethical and socially responsible principles when collaborating with others and creating, sharing and using technologies. When engaged in systems thinking, students evaluate their findings against the criteria of legality, environmental sustainability, economic viability, health, social and emotional responsibility, and social awareness. Students learn about safe and ethical procedures for investigating and working with people, data and materials. They consider their own roles and responsibilities as discerning citizens and learn to detect bias and inaccuracies. Understanding the protection of data, intellectual property and individual privacy in the school environment helps students to be ethical digital citizens.

Intercultural Understanding

Students consider how technologies are used in diverse communities at local, national, regional and global levels, including their impact and potential to transform people's lives. They explore ways in which past and present practices enable people to use technologies to interact with one another across cultural boundaries. Students investigate how cultural identities and traditions influence the function and form of solutions, products, services and environments designed to meet the needs of daily life now and in the future. In their interactions with others in online communities, students consider the dynamic and complex nature of cultures, including values, beliefs, practices and assumptions.

Cross-Curriculum Priorities

Aboriginal and Torres Strait Islander Histories and Cultures

The curriculum may provide an opportunity for students to engage with Aboriginal and Torres Strait Islander histories and cultures. It acknowledges that Aboriginal and Torres Strait Islander people have longstanding use of technology and design knowledge and traditions. Teachers may reference these as appropriate to course content. This will inform understanding of the Australian environment and use of technology and the ways in which it has changed over time.

Asia and Australia's Engagement with Asia

Students investigate a range of contexts that draw on Asia and Australia's engagement with Asia. Students could explore the technological environment within the Asia region and develop an appreciation that technology developed in one area has significant impacts across the world. Students could appreciate that the Asia region plays an important role in technology and design research and development.

Sustainability

Students appreciate the importance of looking at potential use of materials and design to predict possible effects on human and other activity, and the environment, to develop management plans or alternative technologies that minimise these effects and provide for a more sustainable future.

Design & Graphics A/T/M

Rationale

The study of Design and Graphics focusses on exploring the purposeful use of technologies and creative processes to produce design solutions. Students acquire knowledge and develop skills using technologies and other processes appropriately, to design and create graphic solutions.

Students engage with emerging technologies, make connections with industry, and apply industry standards and practices through the development of their projects.

Design and Graphics provides pathways in a range of related fields such as architecture, digital 3D modelling, industrial design, engineering, interior design, graphic design, furniture design, fashion, jewellery, ceramics, textiles, and trade-based careers.

Goals

All courses based on this Framework should enable students to:

- analyse problems or challenges to determine needs for solutions or products
- apply the process of design (investigate, design, plan, manage, create, evaluate solutions)
- use critical and creative thinking to design innovative solutions
- produce or create solutions or products to address a need, problem or challenge
- evaluate and use technologies in a range of contexts
- demonstrate problem solving skills
- communicate to different audiences using a range of methods
- engage confidently with and responsibly select and manipulate appropriate technologies materials, data, systems, tools and equipment.

Unit Titles

- Design Application
- Design for a Client Brief
- Visual Communication
- Design for Screen & Media
- Independent Study

Organisation of Content

Design Applications

In this unit, students learn graphic design principles which focus on solving design problems, presenting ideas and solutions as graphical products. They explore a range of mediums to create practical solutions to design problems. The purpose of this unit is to build skills such as sketching and modelling. Students create a finished product for a specified purpose. They create solutions using a range of processes, applying industry conventions and standards where applicable.

Design for a Client Brief

In this unit, students learn how to interpret a design brief based on needs analysis and task identification. They research the client's and target users/audience needs considering ethical considerations, financial constraints and affordances, meeting deadlines and deliver a product that is fit for purpose. This unit develops the knowledge and skills to generate concepts and solutions in response to design briefs in a range of real-world contexts.

Visual Communication

In this unit, students learn to use graphics to inspire, inform or persuade a target audience using a range of graphical techniques. Drawing on current issues in society, students create a visual campaign in response to a design brief.

They learn to create graphic images using colours, textures, contours and shapes to communicate emotions, attitudes and experiences.

Design for Screen & Media

In this unit, students learn to develop designs for a range of platforms including social media, video sharing, digital newspapers and mobile platforms. They use research to understand how the relevant technology can be used to meet the requirements of the given brief. Students develop skills to solve problems in converting products across multiple platforms. Students build knowledge of data conversion, data storage and data manipulation. They create media files, drawing on the technical aspects of design within a digital framework.

Independent Study

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Assessment

The identification of criteria within the achievement standards and assessment task types and weightings provides a common and agreed basis for the collection of evidence of student achievement.

Assessment Criteria (the dimensions of quality that teachers look for in evaluating student work) provide a common and agreed basis for judgement of performance against unit and course goals, within and across colleges. Over a course, teachers must use all these criteria to assess students' performance but are not required to use all criteria on each task. Assessment criteria are to be used holistically on a given task and in determining the unit grade.

Assessment Tasks elicit responses that demonstrate the degree to which students have achieved the goals of a unit based on the assessment criteria. The Common Curriculum Elements (CCE) is a guide to developing assessment tasks that promote a range of thinking skills (see Appendix C). It is highly desirable that assessment tasks engage students in demonstrating higher order thinking.

Rubrics are constructed for individual tasks, informing the assessment criteria relevant for a particular task and can be used to assess a continuum that indicates levels of student performance against each criterion.

Assessment Criteria

Students will be assessed on the degree to which they demonstrate:

- knowledge and understanding
- skills.

Assessment Task Types – Design & Graphics

	Design Process	Design Solution(s)
	Suggested tasks:	Suggested tasks:
	 design development 	digital artefact
	 design documentation 	 digital asset
	• essay	major project
	 extended response 	 network
	 oral presentation 	• portfolio
	 podcast 	 product
	 portfolio (design process) 	 prototyping
	 project management 	 software application
	 report 	 storyboard
	research task	• website
	return brief	
	review	
	• seminar	
	 short response 	
	 storyboard 	
	web portfolio	
	workshop	
Weightings in A 1.0 and 0.5 units	30 - 70%	30 - 70%
Weightings in T 1.0 and 0.5 units	40 - 60%	40 - 60%
Weightings in M 1.0 and 0.5 units	30 - 70%	30 - 70%

Additional Assessment Information

- For a standard unit (1.0), students must complete a minimum of three assessment tasks and a maximum of five.
- For a half standard unit (0.5), students must complete a minimum of two and a maximum of three assessment tasks.
- Assessment tasks for a standard (1.0) or half-standard (0.5) unit must be informed by the Achievement Standards.
- Students should experience a variety of task types and different modes of communication to demonstrate the Achievement Standards.

Achievement Standards

Years 11 and 12 achievement standards are written for A/T courses. A single achievement standard is written for M courses.

A Year 12 student in any unit is assessed using the Year 12 achievement standards. A Year 11 student in any unit is assessed using the Year 11 achievement standards. Year 12 achievement standards reflect higher expectations of student achievement compared to the Year 11 achievement standards. Years 11 and 12 achievement standards are differentiated by cognitive demand, the number of dimensions and the depth of inquiry.

An achievement standard cannot be used as a rubric for an individual assessment task. Assessment is the responsibility of the college. Student tasks may be assessed using rubrics or marking schemes devised by the college. A teacher may use the achievement standards to inform development of rubrics. The verbs used in achievement standards may be reflected in the rubric. In the context of combined Years 11 and 12 classes, it is best practice to have a distinct rubric for Years 11 and 12. These rubrics should be available for students prior to completion of an assessment task so that success criteria are clear.

Achievement Standards Technologies A Course Year 11

	A student who achieves an A	A student who achieves a B	A student who achieves a C	A student who achieves a D	A student who achieves an E
	grade typically	grade typically	grade typically	grade typically	grade typically
ding	 analyses the design process and explains decision making 	 explains the design process and describes decision making 	describes the design process with reference to decision making	 identifies major features of the design process with minimal reference to decision making 	 identifies some features of the design process
understar	 analyses technology concepts and principles and explains the properties of materials or data or systems to address a need, problem, or challenge 	 explains technology concepts and principles and describes the properties of materials or data or systems to address a need, problem, or challenge 	 describes technology concepts and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge 	 identifies major technology concepts and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge 	 identifies few technology concepts and principles with minimal reference to properties of materials or data or systems to address a need, problem, or challenge
dge and	 analyses technologies, explains ethical and sustainable application 	 explains technologies, describes ethical and sustainable application 	 describes technologies with some reference to ethical and sustainable application 	 identifies major features of technologies with minimal reference to ethical and sustainable application 	 identifies some features of technologies with minimal reference to ethical and sustainable application
Knowled	 thinks critically, drawing on data and information to solve complex problems and analyses opportunities for application of technology 	 thinks critically, drawing on data and information to solve problems and explains opportunities for application of technology 	• draws on data and information to solve problems and describes opportunities for application of technology	 identifies some opportunities for application of technology with minimal use of information and data 	 identifies some opportunities for application of technology with minimal evidence of use of information and data
	 applies technology concepts, strategies and methodologies with control and precision demonstrating understanding of the historical and cultural context and its impact 	 applies technology concepts, strategies and methodologies with control demonstrating understanding of the historical and cultural context and its impact 	• applies technology concepts, strategies and methodologies with some control demonstrating understanding of context and its impact	• applies technology concepts, strategies and methodologies with minimal control demonstrating understanding of its impact	 applies technology concepts, strategies and methodologies with limited control demonstrating minimal evidence of understanding its impact
	 creates innovative and high-quality design solutions/products using techniques and approaches and justifies ideas 	 creates high-quality design solutions/products using techniques and approaches and-explains ideas explains potential prototypes and 	 creates functional design solutions/products using techniques and approaches and explains ideas describes potential prototypes and 	• creates simple, functional design solutions/products using some techniques and approaches and describes ideas	 creates simple design solutions/products using some basic techniques and approaches and description of ideas
kills	 analyses potential prototypes and solutions analysing their appropriateness and effectiveness via iterative improvement and review 	solutions and explains their appropriateness and effectiveness via iterative improvement and review	solutions and explains their appropriateness and effectiveness via iterative improvement and review	 identifies potential prototypes and solutions and describes their appropriateness and effectiveness via iterative improvement and review 	 identifies potential prototypes and solutions with minimal reference to their appropriateness and effectiveness via iterative improvement and review
S	 communicates complex ideas and insights effectively in a range of mediums and justifies ideas coherently using appropriate evidence, metalanguage, and accurate referencing 	 communicates ideas effectively in a range of mediums and justifies ideas coherently using appropriate evidence, metalanguage and referencing 	• communicates ideas appropriately in mediums and explains ideas coherently using appropriate evidence, metalanguage and referencing	 communicates ideas in mediums and describes ideas with some use of appropriate evidence with minimal use metalanguage and referencing 	 communicates basic ideas in few mediums and describes ideas with or no minimal use of appropriate evidence and referencing
	 reflects with insight on their own thinking and evaluates inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively 	• reflects on their own thinking and analyses inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively	 reflects on their own thinking and explains inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively 	• reflects on their own thinking with some reference to planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively	• reflects on their own thinking with minimal reference to planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively

Achievement Standards Technologies T Course Year 11

	A student who achieves an A	A student who achieves a B	A student who achieves a C	A student who achieves a D	A student who achieves an E
	grade typically	grade typically	grade typically	grade typically	grade typically
nding	 critically analyses the design process and evaluates constraints and implications for decision making 	 analyses the design process and explains constraints and implications for decision making 	• explains the design process and describes constraints and implications for decision making	 describes the design process with some reference to constraints and implications for decision making 	 identifies features of the design process with minimal reference to decision making
nd understa	 synthesises technology theories, concepts and principles and evaluates the properties of materials or data or systems to address a need, problem, or challenge 	 analyses technology theories, concepts and principles and explains the properties of materials or data or systems to address a need, problem, or challenge 	• explains technology theories, concepts and principles and describes the properties of materials or data or systems to address a need, problem, or challenge	• describes technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge	 identifies technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge
Knowledge aı	 critically analyses technologies and evaluates ethical and sustainable application of technology thinks critically and creatively, drawing on data and information to solve complex problems 	 analyses technologies and explains ethical and sustainable application of technology thinks critically, drawing on data and information to solve complex problems 	 explains technologies and describes ethical and sustainable application of technology thinks critically, drawing on data and information to solve problems 	 describes technologies with some reference to ethical and sustainable application of technology draws on data and information to solve problems and describes opportunities 	 identifies some features of technologies with minimal reference to ethical and sustainable application of technology applying minimal use of information and data
	• applies technology concepts, strategies and methodologies with control and precision demonstrating understanding of the historical and cultural context and its impact	• applies technology concepts, strategies and methodologies with control demonstrating understanding of the historical and cultural context and its impact	• applies technology concepts, strategies and methodologies with some control demonstrating understanding of context and its impact	 applies technology concepts, strategies and methodologies with minimal control demonstrating understanding of its impact 	 applies technology concepts, strategies and methodologies with limited control demonstrating minimal evidence of understanding its impact
kills	 creates innovative and high quality design solutions/products using techniques and approaches and justifies ideas coherently analyses potential prototypes and solutions analysing their appropriateness and effectiveness via iterative improvement and review 	 creates high-quality design solutions/products using techniques and approaches and justifies ideas coherently analyses potential prototypes and solutions explaining their appropriateness and effectiveness via iterative improvement and review 	 creates functional quality design solutions/products using techniques and approaches and explains ideas coherently explains potential prototypes and solutions describing their appropriateness and effectiveness via iterative improvement and review 	 creates simple, functional design solutions/products using some techniques and approaches and explains ideas describes potential prototypes and solutions with some reference to their appropriateness and effectiveness via iterative improvement and review 	 creates design solutions/products using some basic techniques and approaches and describes ideas identifies potential prototypes and solutions with minimal reference to their appropriateness and effectiveness via iterative improvement and review
5	 communicates complex ideas and insights effectively in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing 	• communicates ideas effectively in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing	• communicates ideas appropriately in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing	 communicates ideas in mediums to a variety of audiences using some evidence, metalanguage, and referencing 	 communicates basic ideas in mediums to a variety of audiences using minimal evidence, metalanguage, and some referencing
	 reflects with insight on their own thinking and that of others and evaluates inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work independently and collaboratively 	• reflects on their own thinking and analyses inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work independently and collaboratively	 reflects on their own thinking and explains inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work independently and collaboratively 	• reflects on their own thinking with some reference to inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work independently and collaboratively	• reflects on their own thinking with minimal reference to planning, time management, use of appropriate techniques and strategies and capacity to work independently and collaboratively

Achievement Standards Technologies A Course Year 12

	A student who achieves an A	A student who achieves a B	A student who achieves a C	A student who achieves a D	A student who achieves an E
	grade typically	grade typically	grade typically	grade typically	grade typically
ding	 analyses the design process and explains opportunities, constraints and implications for decision making 	 explains the design process and describes opportunities, constraints and implications for decision making 	• describes the design process with reference to opportunities, constraints and implications for decision making	 identifies major features of the design process with minimal reference to opportunities, constraints and implications for decision making 	 identifies some features of the design process with minimal understanding of opportunities, constraints, and implications
ıd understar	 analyses technology theories, concepts and principles and explains the properties of materials or data or systems to address a need, problem, or challenge 	• explains technology theories, concepts and principles and describes the properties of materials or data or systems to address a need, problem, or challenge	 describes technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge 	 identifies major technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge 	 identifies few technology theories, concepts, and principles with minimal reference to properties of materials or data or systems to address a need, problem, or challenge
ʻledge ar	 analyses technologies in a range of contexts and explains ethical and sustainable application 	 explains technologies in a range of contexts and describes ethical and sustainable application 	 describes technologies in a range of contexts with some reference to ethical and sustainable application 	 identifies major features of technologies with minimal reference to ethical and sustainable application 	• identifies some features of technologies with no reference to ethical and sustainable application
Know	 thinks critically, drawing on data and information to solve complex problems and analyses opportunities for application of technology 	• thinks critically, drawing on data and information to solve problems and explains opportunities for application of technology	 draws on data and information to solve problems and describes opportunities for application of technology 	 identifies some opportunities for application of technology with limited use of information and data 	 identifies some opportunities for application of technology with minimal evidence of use of information and data
	 applies technology concepts, strategies and methodologies with control and precision demonstrating understanding of the historical and cultural context and its impact 	• applies technology concepts, strategies and methodologies with control demonstrating understanding of the historical and cultural context and its impact	• applies technology concepts, strategies and methodologies with some control demonstrating understanding of context and its impact	• applies technology concepts, strategies and methodologies with minimal control demonstrating understanding of its impact	 applies technology concepts, strategies and methodologies with limited control demonstrating minimal evidence of understanding its impact
ills	 creates innovative and high-quality design solutions/products using efficient techniques and approaches and justifies ideas analyses potential prototypes and solutions, and-analyses their appropriateness and effectiveness via iterative improvement and review 	 creates high-quality design solutions/products using techniques and approaches and explains ideas explains potential prototypes and solutions, and explains their appropriateness and effectiveness via iterative improvement and review 	 creates functional design solutions/products using some techniques and approaches and explains ideas describes potential prototypes and solutions, and describes their appropriateness and effectiveness via iterative improvement and review. 	 creates functional design solutions/products using some techniques and approaches and describes ideas identifies potential prototypes and solutions, and identifies their appropriateness and effectiveness via iterative improvement and review 	 creates simple design solutions/products using basic techniques and approaches and description of ideas identifies potential prototypes and solutions with minimal reference to their appropriateness and effectiveness via iterative improvement and review
Sk	 communicates complex ideas and insights effectively in a range of mediums and justifies ideas coherently using appropriate evidence, metalanguage, and accurate referencing 	 communicates ideas effectively in a range of mediums and justifies ideas coherently using appropriate evidence, metalanguage and referencing 	 communicates ideas appropriately in mediums and explains ideas coherently using appropriate evidence, metalanguage and referencing 	 communicates ideas in mediums and describes ideas with some use of appropriate evidence with minimal use metalanguage and referencing 	 communicates basic ideas in few mediums and describes ideas with minimal use of appropriate evidence and referencing
	 reflects with insight on their own thinking and evaluates inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively 	• reflects on their own thinking and analyses inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively	• reflects on their own thinking explains inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively	• reflects on their own thinking with some reference to planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively	• reflects on their own thinking with minimal reference to planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively

Achievement Standards Technologies T Course Year 12

	A student who achieves an A	A student who achieves a B	A student who achieves a C	A student who achieves a D	A student who achieves an E
	grade typically	grade typically	grade typically	grade typically	grade typically
	 critically analyses the design process and evaluates opportunities, constraints and implications for decision making 	 analyses the design process and explains opportunities, constraints and implications for decision making 	 explains the design process and describes opportunities, constraints and implications for decision making 	 describes the design process with some reference to opportunities, constraints and implications for decision making 	 identifies features of the design process with minimal reference to decision making
anding	 critically analyses strategies, methodologies and procedures and evaluates their validity and reliability 	 analyses strategies, methodologies and procedures and explains their validity and reliability 	 explains strategies, methodologies and procedures and describes their validity and reliability 	 describes strategies, methodologies, and procedures with some reference to validity and reliability 	 identifies some strategies, methodologies, and procedures with- minimal reference to validity and reliability
and underst	 synthesises technology theories, concepts and principles and evaluates the properties of material or data or systems to address a need, problem, or challenge 	 analyses technology theories, concepts and principles and explains the properties of materials or data or systems to address a need, problem, or challenge 	• explains technology theories, concepts and principles and describes the properties of materials or data or systems to address a need, problem, or challenge	 describes technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge 	 identifies technology theories, concepts, and principles with some reference to properties of materials or data or systems to address a need, problem, or challenge
nowledge	 critically analyses technologies in a range of contexts and evaluates ethical and sustainable application of technology 	 analyses technologies in a range of contexts and explains ethical and sustainable application of technology 	 explains technologies in a range of contexts and describes ethical and sustainable application of technology 	 describes technologies in a range of contexts with some reference to ethical and sustainable application of technology 	 identifies some features of technologies in a range of contexts with minimal reference to ethical and sustainable application of technology
Kı	• thinks critically and creatively, drawing on data and information to solve complex problems and evaluates opportunities for application of technology	 thinks critically, drawing on data and information to solve complex problems and analyses opportunities for application of technology 	 thinks critically, drawing on data and information at times to solve problems and explains opportunities for application of technology 	• draws on data and information at times to solve problems and describes opportunities for application of technology	 identifies some opportunities for application of technology with limited use of information and data
	• applies technology concepts, strategies and methodologies demonstrating an understanding of the historical and cultural context and impact on individuals, groups, communities, and society	• applies technology concepts, strategies and methodologies with control demonstrating understanding of the historical and cultural context and impact on individuals, groups, communities, and society	• applies technology concepts, strategies and methodologies with some control demonstrating understanding of context and the impact on individuals, groups, communities, and society	 applies technology concepts, strategies and methodologies with minimal control demonstrating understanding of the impact on individuals, groups, communities, and society 	• applies technology concepts, strategies and methodologies with limited control demonstrating little evidence of understanding of the impact on individuals, groups, communities, and society
	 creates innovative and high-quality design solutions/products using techniques and approaches and justifies ideas logically and coherently 	 creates high quality design solutions/products using techniques and approaches and justifies ideas coherently 	 creates functional design solutions/products using techniques and approaches and justifies ideas 	 creates functional design solutions/products using some techniques and approaches and explains ideas 	 creates simple, functional design solutions/products using basic techniques and approaches and describes ideas
Skills	 critically analyses potential prototypes and solutions evaluating their appropriateness and effectiveness via iterative improvement and review 	 analyses potential prototypes and solutions analysing their appropriateness and effectiveness via iterative improvement and review 	 explains potential prototypes and solutions explaining their appropriateness and effectiveness via iterative improvement and review 	 describes potential prototypes and solutions describing their appropriateness and effectiveness via iterative improvement and review 	 identifies potential prototypes and solutions identifying their appropriateness and effectiveness via iterative improvement and review
	 communicates complex ideas and insights effectively in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing 	 communicates ideas effectively in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing 	 communicates ideas appropriately in a range of mediums to a variety of audiences using appropriate evidence, metalanguage, and accurate referencing 	 communicates ideas in mediums to a variety of audiences using some evidence, metalanguage and referencing 	 communicates basic ideas in mediums to a variety of audiences using minimal evidence, metalanguage, and some referencing
	 reflects with insight on their own thinking and that of others and evaluates inter and intrapersonal skills including planning, time management, use of appropriate techniques & strategies and capacity to work independently and 	 reflects on their own thinking and that of others and analyses inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and 	• reflects on their own thinking and that of others and explains inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and	 reflects on their own thinking with some reference to inter and intrapersonal skills including planning, time management, use of appropriate techniques and strategies and capacity to work both independently and 	 reflects on their own thinking with minimal reference to planning, time management, use of appropriate techniques and strategies and capacity to work both independently and collaboratively
	collaboratively	collaboratively	collaboratively	collaboratively	-

	A student who achieves an A grade typically	A student who achieves a B grade typically	A student who achieves a C grade typically	A student who achieves a D grade typically	A student who achieves an E grade typically
e and nding	 describes and uses the design process and procedures with independence 	 describes and uses the design process and procedures with some assistance 	 recounts design procedures used with assistance 	 identifies design procedures with continuous guidance 	 identifies design procedures with direct instruction
Knowledg understa	 describes practical techniques and materials required to address a need or solve a problem with independence 	 describes practical techniques and materials required to address a need or solve a problem with some assistance 	 recounts practical techniques and materials used to solve a problem with assistance 	 uses practical techniques and materials required with continuous guidance 	 identifies practical techniques and materials with direct instruction
	 communicates ideas using appropriate terminology with independence 	 communicates ideas using appropriate terminology with some assistance 	 communicates ideas using appropriate, terminology with assistance 	 communicates ideas using appropriate, terminology with continuous guidance 	 communicates ideas using appropriate terminology with direct instruction
	 makes discerning choice of strategies and procedures to use technology with independence 	 selects strategies and procedures to use technology with some assistance 	 selects strategies and procedures to use technology with assistance 	 selects strategies and procedures to use technology with continuous guidance 	 selects strategies and procedures to use technology with direct instruction
Skills	 demonstrates interpersonal and intrapersonal skills in a range of technology contexts with independence 	 demonstrates interpersonal and intrapersonal skills in a range of technology contexts with some assistance 	 demonstrates interpersonal and intrapersonal skills in technology contexts with assistance 	 demonstrates interpersonal and intrapersonal skills in technology contexts with continuous guidance 	 demonstrates interpersonal and intrapersonal skills in technology contexts with direct instruction
	 plans and undertakes independent inquiries with independence 	 plans and undertakes independent inquiries with some assistance 	 undertakes guided inquiries with assistance 	 undertakes guided inquiries with continuous guidance 	 undertakes simple research on a topic with direct instruction
	 create design solutions/products with independence 	 create design solutions/products with some assistance 	 create design solutions/products with assistance 	 create design solutions/products with continuous guidance 	 create design solutions/products with direct instruction

Achievement Standards Technologies M Course

Value: 1.0
Value: 0.5
Value: 0.5

Unit Description

In this unit, students learn graphic design principles which focus on solving design problems, presenting ideas and solutions as graphical products. They explore a range of mediums to create practical solutions to design problems. The purpose of this unit is to build skills such as sketching and modelling. Students create a finished product for a specified purpose. They create solutions using a range of processes, applying industry conventions and standards where applicable.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
 apply the design process to solve design problems 	 apply the design process to solve design problems 	 apply the design process to solve design problems
 analyse methods used to create innovative solutions 	 evaluate methods used to create innovative solutions that address user(s) needs 	 describe tools and methods

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Design process		
 analyse and apply a design process to create finished products that meet specific purposes 	 critically analyse and apply a design process to create finished products that meet specific purposes 	 apply a design process to create finished products that meet specific purposes
 apply elements and principles of design and apply to products for a specific purpose 	 understand elements and principles of design and apply to products for a specific purpose 	
 use the design process and explain opportunities, constraints and implications for decision making 	 use the design process and evaluate opportunities, constraints and implications for decision making 	

A Course	T Course	M Course			
Strategies, methodologies and procedures					
 apply strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, digital drawing tools, 2D and 3D printers and explain their significance research solutions to design problems and justify decisions in the design process 	 evaluate strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, digital drawing tools, 2D and 3D printers and explain their significance research and investigate solutions to design problems and justify decisions in the design process 	 evaluate strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, digital drawing tools, 2D and 3D printers and explain their significance 			
 understand the selection and use of specific production materials, equipment and/or digital applications appropriate to the design brief create a finished product using freehand, print or 	 understand the selection and use of specific production materials, equipment and/or digital applications appropriate to the design brief create a finished product using freehand, print or 	 create a finished product using freehand, print or 			
digital formats, informed by industry conventions and standards	digital formats, informed by industry conventions and standards	digital formats			
 design solutions to problems, using design strategies, for example, brainstorming, mind mapping, prototyping 	 design solutions to problems, using design strategies, including, brainstorming, mind mapping, prototyping 	 design solutions to problems, using design strategies, including, brainstorming, mind mapping, prototyping 			
 apply strategies to work both independently and collaboratively 	 apply strategies to work both independently and collaboratively 	 apply strategies to work both independently and collaboratively 			
Theories, concepts and materia	ls				
 analyse the factors affecting design and choice of the appropriate medium 	 critically analyse the factors affecting design and choice of the appropriate medium 				
 analyse legal responsibilities and implications of producing designs for publication, for example, copyright, intellectual property, trademarks 	 critically analyse legal responsibilities and implications of producing designs for publication, including, copyright, intellectual property, trademarks 				

A Course	T Course	M Course
 describe factors that make good design 	 critically analyse factors that make good design and evaluate the quality of the final product 	 identify factors that make good design
Context		
 analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups analyse ethical and sustainable considerations in the application of design 	 critically analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups critically analyse ethical and sustainable considerations in the application of design 	 describe how design addresses the needs of individuals and groups in different contexts
Communication		
 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate ideas to others using technical terms, both orally and in writing
 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	
 explain the process of solving design problems and justify the choices made in response to the design brief 	 explain the process of solving design problems and justify the choices made in response to the design brief 	 describe the process of solving design problems
Justify ideas using appropriate evidence and accurate referencing	 Justify ideas using appropriate evidence and accurate referencing 	 communicate ideas and describe choices
Reflection		
 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on how to manage deadlines and improve own learning

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 9-11.

Design for a Client Brief

Design for a Clients a Design for a Clients b

Unit Description

In this unit, students learn how to interpret a design brief based on needs analysis and task identification. They research the client's and target user(s)/audience needs considering ethical considerations, financial constraints and affordances, meeting deadlines and deliver a product that is fit for purpose. This unit develops the knowledge and skills to generate concepts and solutions in response to design briefs in a range of real-world contexts.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
 analyse a design brief and create a design solution that suits the client's needs 	 evaluate a design brief from clients. 	 create a design solution
 design solutions that suits the client's needs 	 design solutions that suits the client's, user(s) or audience needs 	describe design solutions

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Design process		
 analyse design briefs, for example: objectives and goals of the new design, budgets and schedules, target audience, scope of the project, required materials and styles and apply to finished products 	 critically analyse design briefs, including: objectives and goals of the new design, budgets and schedules, target audience, scope of the project, required materials and styles and apply to finished products 	 describe design briefs, for example: objectives and goals of the new design, budgets and schedules, target audience, scope of the project, required materials and styles and apply to finished products
 understand elements and principles of design and apply to products created to meet the client's needs 	 understand elements and principles of design and apply to products created to meet the client's, user(s) or audience needs 	

Value: 1.0

Value: 0.5 Value: 0.5

A Course	T Course	M Course
 use the design process and analyse opportunities, constraints and implications for decision making 	 use the design process and evaluate opportunities, constraints and implications for decision making 	
Strategies, methodologies and	procedures	
 apply strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, mechanical drawing tools, 2D and 3D printers and explain their significance 	 evaluate strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, mechanical drawing tools, 2D and 3D printers and explain their significance 	 apply strategies, tools and processes required to produce design solutions, including; graphics software, free hand sketching, mechanical drawing tools, 2D and 3D printers and explain their significance
 research solutions to design problems and justify decisions in the design process 	 research and investigate solutions to design problems and justify decisions in the design process 	
 understand the specific needs of the client in relation to the design brief balancing key criteria with constraints, for example, management plan, data collection, interviews, timeline, environmental scan on appropriate platforms and applications, preproduction 	 understand the specific needs of the client and user(s) or audience needs in relation to the design brief balancing key criteria with constraints, for example, management plan, data collection, interviews, timeline, environmental scan on appropriate platforms and applications, preproduction 	
 create prototypes to meet the design brief, for example, storyboard, mock ups, websites, PowerPoint and prepare for the presentation to the client 	 create prototypes to meet the design brief, for example, storyboard, mock ups, websites, PowerPoint and prepare for the presentation to the client 	 create prototypes to meet the design brief, for example, storyboard, mock ups, websites, PowerPoint and prepare for the presentation to the client

A Course	T Course	M Course
 design solutions to problems, using design strategies, including, brainstorming, mind mapping, prototyping apply strategies to work both independently and collaboratively 	 design solutions to problems, using design strategies, including, brainstorming, mind mapping, prototyping apply strategies to work both independently and collaboratively 	 design solutions to problems, using design strategies, including, brainstorming, mind mapping, prototyping apply strategies to work both independently and collaboratively
Theories, concepts and materia	ls	
 analyse design theory and the fundamentals and principles of creating visual communication and all types of art analyse the social and ethical aspects of the design brief as well as intellectual property 	 critically analyse design theory and the fundamentals and principles of creating visual communication and all types of art critically analyse the social and ethical aspects of the design brief as well as intellectual property 	
 explain factors that make good design 	 critically analyse factors that make good design and evaluate product success against the requirements of design briefs 	 identify factors that make good design
Contexts		
 analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups analyse ethical and 	 critically analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups critically analyse ethical 	 describe how design addresses the needs of individuals and groups in different contexts
 analyse ethical and sustainable considerations in the application of design 	 critically analyse ethical and sustainable considerations in the application of design 	
Communication		
 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate ideas to others using technical terms, both orally and in writing

A Course	T Course	M Course
 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	
 explain the process of solving design problems and justify the choices made in response to the design brief 	 explain the process of interpreting a brief for a client and select appropriate presentation techniques for client submission and folio record 	 describe the process of solving design problems
 justify ideas using appropriate evidence and accurate referencing 	 justify ideas using appropriate evidence and accurate referencing 	 communicate ideas and describe choices
Reflection		
 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on how to manage deadlines and improve own learning

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 9-11.

Visual Communication

Visual Communication a Visual Communication b

Unit Description

In this unit, students learn to use graphics to inspire, inform or persuade a target audience using a range of graphical techniques. Drawing on current issues in society, students create a visual campaign in response to a design brief.

They learn to create graphic images using colours, textures, contours and shapes to communicate emotions, attitudes and experiences.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
 analyse graphic communicate techniques 	 evaluate a range of graphic communicate techniques 	 identify graphic communicate techniques
 apply a range of techniques and technologies to create visual design solutions 	 apply a range of techniques and technologies to create visual design solutions that address user(s) or audience needs 	 apply techniques and technologies to create visual design solutions

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Design process		
 analyse and apply techniques to create products that influence an audience 	 critically analyse and apply techniques to create products that influence an audience 	 apply a design process technique to create products that influence an audience
 understand elements and principles of design and apply to products to influence an audience 	 understand elements and principles of design and apply to products to influence an audience 	
 use the design process and analyse opportunities, constraints and implications for decision making 	 use the design process and evaluate opportunities, constraints and implications for decision making 	

Value: 0.5 Value: 0.5

A Course	T Course	M Course
Strategies, methodologies and procedures		
 apply strategies, tools	 evaluate strategies, tools	 apply strategies, tools
and processes required	and processes required	and processes required
to produce design	to produce design	to produce design
solutions, including;	solutions, including;	solutions, including;
graphics software, free	graphics software, free	graphics software, free
hand sketching, digital	hand sketching, digital	hand sketching, digital
drawing tools, 2D and 3D	drawing tools, 2D and 3D	drawing tools, 2D and 3D
printers, digital	printers, digital	printers, digital
billboards and explain	billboards and explain	billboards and explain
their significance	their significance	their significance
 analyse appropriate strategies for communication to engage an audience, for example, shock tactics, humour, metaphor, genre understand graphic 	 analyse and evaluate appropriate strategies for communication to engage an audience, including shock tactics, humour, metaphor, genre understand graphic 	 apply strategies for communication to engage an audience, for example, shock tactics, humour, metaphor, genre
design as a visual communication tool and its practical applications in society, for example, signage and infographics, marketing and branding, schematics and technical diagrams and education and entertainment	design as a visual communication tool and its practical applications in society, including, signage and infographics, marketing and branding, schematics and technical diagrams and education and entertainment	
 create graphic images	 create graphic images	 create graphic images
using colours, textures,	using colours, textures,	using colours, textures,
contours, composition,	contours, composition,	contours, composition,
font, setting and shapes	font, setting and shapes	font, setting and shapes
to create impact and	to create impact and	to create impact and
influence audiences	influence audiences	influence audiences
 design solutions to	 design solutions to	 design solutions to
problems, using design	problems, using design	problems, using design
strategies, including,	strategies, including,	strategies, including,
brainstorming, mind	brainstorming, mind	brainstorming, mind
mapping, prototyping	mapping, prototyping	mapping, prototyping
 apply strategies to work	 apply strategies to work	 apply strategies to work
both independently and	both independently and	both independently and
collaboratively	collaboratively	collaboratively

A Course	T Course	M Course
Theories, concepts and materia	ls	
 analyse visual communication theories, including, Gestalt theory, human perception, psychology of colour, and principles of design analyse the social and ethical aspects of the design brief as well as intellectual property explain factors that make 	 critically analyse visual communication theories, including, Gestalt theory, human perception, psychology of colour, and principles of design critically analyse the social and ethical aspects of the design brief as well as intellectual property critically analyse the 	 identify factors that
good design	factors that make good design and evaluate the impact of the others' products and their own	make good design
Contexts		
 analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups analyse ethical and sustainable considerations in the application of design 	 critically analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups critically analyse ethical and sustainable considerations in the application of design 	 describe how design addresses the needs of individuals and groups in different contexts
Communication		
 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate ideas to others using technical terms, both orally and in writing
 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	
 explain how to use design and graphics to engage an audience and justify the selection of techniques employed 	 explain how to use design and graphics to engage an audience and justify the selection of techniques employed 	 describe the process of solving design problems

A Course	T Course	M Course
 justify ideas using appropriate evidence and accurate referencing 	 justify ideas using appropriate evidence and accurate referencing 	 communicate ideas and describe choices
Reflection		
 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on how to manage deadlines and improve own learning

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 9-11.

Design for Screen & Media

Design for Screen & Media a Design for Screen & Media b

Unit Description

In this unit, students learn to develop designs for a range of platforms including social media, video sharing, digital newspapers and mobile platforms. They use research to understand how the relevant technology can be used to meet the requirements of the given brief. Students develop skills to solve problems in converting products across multiple platforms. Students build knowledge of data conversion, data storage and data manipulation. They create media files, drawing on the technical aspects of design within a digital framework.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
 analyse screen and media design in the film, television and digital industries 	 evaluate screen and media design in the film, television and digital industries 	 describe screen and media design in the film, television and digital industries
 apply screen and media techniques 	 apply a variety of visual storytelling techniques to create a screen and media product that addresses user(s) / audience needs 	 apply screen and media techniques

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Design process		
 analyse a range of platforms and apply the relevant technology to meet the requirements of the given brief 	 critically analyse a range of platforms and apply the relevant technology to meet the requirements of the given brief 	 describe a range of platforms and apply the relevant technology to meet the requirements of the given brief
 understand elements and principles of design and apply to products for a range of platforms 	 understand elements and principles of design and apply to products for a range of platforms 	
 use the design process to evaluate opportunities, constraints and implications for decision making 	 use the design process to evaluate opportunities, constraints and implications for decision making 	

Value: 1.0

Value: 0.5 Value: 0.5

A Course	e T Course M Course	
Strategies, methodologies and procedures		
 apply strategies, tools and processes required to produce design solutions, including; graphics software and computer hardware and explain their significance research solutions to 	 evaluate strategies, tools and processes required to produce design solutions, including; graphics software and computer hardware and explain their significance research and investigate 	 apply strategies, tools and processes required to produce design solutions, including; graphics software and computer hardware and explain their significance
design problems and justify decisions in the design process	solutions to design problems and justify decisions in the design process	
 apply strategies and procedures for data conversion, data storage and data manipulation 	 evaluate strategies and procedures for data conversion, data storage and data manipulation 	
 create media files using bit rate, bit depth, colour spaces, frame rates, and sampling frequency to predict file sizes of audio and video assets, capture and record digital media according to specific industry standard requirements for resolution, file formats, storage and file management protocols for digital media types 	 create media files using bit rate, bit depth, colour spaces, frame rates, and sampling frequency to predict file sizes of audio and video assets, capture and record digital media according to specific industry standard requirements for resolution, file formats, storage and file management protocols for digital media types 	• create media files
 design solutions to problems, using strategies, including, brainstorming, mind mapping, prototyping 	 design solutions to problems, using strategies, including, brainstorming, mind mapping, prototyping 	 design solutions to problems, using strategies, including, brainstorming, mind mapping, prototyping
 apply strategies to work both independently and collaboratively 	 apply strategies to work both independently and collaboratively 	 apply strategies to work both independently and collaboratively

A Course	T Course	M Course
Theories, concepts and materials		
 evaluate the effectiveness of a variety of platforms to deliver, manage and store content 	 evaluate the effectiveness of a variety of platforms to deliver, manage and store content 	
 analyse the social and ethical aspects of the design brief as well as intellectual property 	 critically analyse the social and ethical aspects of the design brief as well as intellectual property 	
 describe factors that make good design for platforms 	 critically analyse factors that make good design and evaluate similar content across different platforms 	 identify factors that make good design
Contexts		
 analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups analyse ethical and sustainable 	 critically analyse how design is influenced by context including social, historical and cultural, and how design may impact on individuals or groups critically analyse ethical and sustainable 	 describe how design addresses the needs of individuals and groups in different contexts
considerations in the application of design	considerations in the application of design	
Communication		
 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate ideas to others using technical terms, both orally and in writing
 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	
 explain the capabilities of a range of platforms available and discuss the issues faced in converting products into different platforms 	 explain the capabilities of a range of platforms available and discuss the issues faced in converting products into different platforms 	

A Course	T Course	M Course
 justify ideas using appropriate evidence and accurate referencing 	 justify ideas using appropriate evidence and accurate referencing 	 communicate ideas and describe choices
Reflection		
 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on how to manage deadlines and improve own learning

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 9-11.

Independent Study

Independent Study a Independent Study b

Prerequisites

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Unit Description

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

Duplication of Content

Students must not duplicate topics, case studies or issues studied in this course.

Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
 analyse design theories, strategies, processes and methodologies 	 evaluate design theories, strategies, processes and methodologies 	 describe design theories, strategies, processes and methodologies
 create a design product 	 create a design product that addresses user(s) needs 	 create a design product

Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
Design process		
 apply design methodology to create and produce a product 	 apply design methodology to create and produce a product that addresses user(s) needs 	 apply the design process to create a product
Strategies, methodologies and procedures		
 explore the features of the area of study in design and graphics 	 analyse the features of the area of study in design and graphics 	 use appropriate techniques to manufacture a product

Value: 1.0

Value: 0.5 Value: 0.5

A Course	T Course M Course	
 apply project and risk management strategies 	 analyse and apply project and risk management strategies 	
 work independently and/or collaboratively 	 use opportunities to work independently and/or collaboratively 	 work independently and/or collaboratively
Theories, concepts and materia	ls	
 analyse design theories, concepts and materials related to the area of study 	 evaluate design theories, concepts and materials related to the area of study 	 describe design concepts related to the area of study
Contexts		
 investigate contexts relevant to the area of study 	 investigate contexts relevant to the area of study 	 explore styles and influences in products
 explain ethical, environmental and social responsibilities of designers 	 evaluate ethical, environmental and social responsibilities of designers 	
Communication		
 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate accurately with others using correct terms in an appropriate format, both orally and in writing including structured reports 	 communicate ideas to others using technical terms, both orally and in writing
 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	 communicate ideas and insights in a range of appropriate mediums to a variety of audiences 	
 justify ideas using appropriate evidence and accurate referencing 	 justify ideas using appropriate evidence and accurate referencing 	 communicate ideas and describe choices
Reflection		
 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on own learning style and performance, including planning and time management, to develop strategies to improve own learning 	 reflect on how to manage deadlines and improve own learning

A guide to reading and implementing content descriptions

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

Assessment

Refer to pages 9-11.

Appendix A – Implementation Guidelines

Available course patterns

A standard 1.0 value unit is delivered over at least 55 hours. To be awarded a course, students must complete at least the minimum units over the whole minor, major, major/minor or double major course.

Course	Number of standard units to meet course requirements
Minor	Minimum of 2 units
Major	Minimum of 3.5 units

Units in this course can be delivered in any order.

Prerequisites for the course or units within the course

Students must have studied at least three standard 1.0 units from this course in order to access the Independent Study unit. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

Arrangements for students continuing study in this course

Students who studied the previous course may undertake any units in this course provided there is no duplication of content.

Duplication of Content Rules

Students cannot be given credit towards the requirements for a Senior Secondary Certificate for a unit that significantly duplicates content in a unit studied in another course. The responsibility for preventing undesirable overlap of content studied by a student rests with the principal and the teacher delivering the course. Students will only be given credit for covering the content once.

Guidelines for Delivery

Program of Learning

A program of learning is what a school provides to implement the course for a subject. This meets the requirements for context, scope and sequence set out in the Board endorsed course. Students follow programs of learning in a college as part of their senior secondary studies. The detail, design and layout of a program of learning are a college decision.

The program of learning must be documented to show the planned learning activities and experiences that meet the needs of particular groups of students, taking into account their interests, prior knowledge, abilities and backgrounds. The program of learning is a record of the learning experiences that enable students to achieve the knowledge, understanding and skills of the content descriptions. There is no requirement to submit a program of learning to the OBSSS for approval. The Principal will need to sign off at the end of Year 12 that courses have been delivered as accredited.

Content Descriptions

Are all content descriptions of equal importance? No. It depends on the focus of study. Teachers can customise their program of learning to meet their own students' needs, adding additional content descriptions if desired or emphasising some over others. A teacher must balance student needs with their responsibility to teach all content descriptions. It is mandatory that teachers address all content descriptions and that students engage with all content descriptions.

Half standard 0.5 units

Half standard units appear on the course adoption form but are not explicitly documented in courses. It is at the discretion of the college principal to split a standard 1.0 unit into two half standard 0.5 units. Colleges are required to adopt the half standard 0.5 units. However, colleges are not required to submit explicit documentation outlining their half standard 0.5 units to the BSSS. Colleges must assess students using the half standard 0.5 assessment task weightings outlined in the framework. It is the responsibility of the college principal to ensure that all content is delivered in units approved by the Board.

Moderation

Moderation is a system designed and implemented to:

- provide comparability in the system of school-based assessment
- form the basis for valid and reliable assessment in senior secondary schools
- involve the ACT Board of Senior Secondary Studies and colleges in cooperation and partnership
- maintain the quality of school-based assessment and the credibility, validity and acceptability of Board certificates.

Moderation commences within individual colleges. Teachers develop assessment programs and instruments, apply assessment criteria, and allocate Unit Grades, according to the relevant Course Framework. Teachers within course teaching groups conduct consensus discussions to moderate marking or grading of individual assessment instruments and unit grade decisions.

The Moderation Model

Moderation within the ACT encompasses structured, consensus-based peer review of Unit Grades for all accredited courses over two Moderation Days. In addition to Moderation Days, there is statistical moderation of course scores, including small group procedures, for T courses.

Moderation by Structured, Consensus-based Peer Review

Consensus-based peer review involves the review of student work against system wide criteria and standards and the validation of Unit Grades. This is done by matching student performance with the criteria and standards outlined in the Achievement Standards, as stated in the Framework. Advice is then given to colleges to assist teachers with, or confirm, their judgments. In addition, feedback is given on the construction of assessment instruments.

Preparation for Structured, Consensus-based Peer Review

Each year, teachers of Year 11 are asked to retain originals or copies of student work completed in Semester 2. Similarly, teachers of a Year 12 class should retain originals or copies of student work completed in Semester 1. Assessment and other documentation required by the Office of the Board of Senior Secondary Studies should also be kept. Year 11 work from Semester 2 of the previous year is presented for review at Moderation Day 1 in March, and Year 12 work from Semester 1 is presented for review at Moderation Day 2 in August. In the lead up to Moderation Day, a College Course Presentation (comprised of a document folder and a set of student portfolios) is prepared for each A, T and M course/units offered by the school and is sent into the Office of the Board of Senior Secondary Studies.

The College Course Presentation

The package of materials (College Course Presentation) presented by a college for review on Moderation Days in each course area will comprise the following:

- a folder containing supporting documentation as requested by the Office of the Board through memoranda to colleges, including marking schemes and rubrics for each assessment item
- a set of student portfolios containing marked and/or graded written and non-written assessment responses and completed criteria and standards feedback forms. Evidence of all assessment responses on which the Unit Grade decision has been made is to be included in the student review portfolios.

Specific requirements for subject areas and types of evidence to be presented for each Moderation Day will be outlined by the Board Secretariat through the *Requirements for Moderation Memoranda* and Information Papers.

Visual evidence for judgements made about practical performances

It is a requirement that schools' judgements of standards to practical performances (A/T/M) be supported by visual evidence (still photos or video).

The photographic evidence submitted must be drawn from practical skills performed as part of the assessment process.

Teachers should consult the BSSS website for current information regarding all moderation requirements including subject specific and photographic evidence.

Appendix B – Course Developers

Name	College
Kulvinder Chopra	Canberra College
Salvatore Papasidero	Canberra Girls Grammar School

Appendix C – Common Curriculum Elements

Common curriculum elements assist in the development of high-quality assessment tasks by encouraging breadth and depth and discrimination in levels of achievement.

Organisers	Elements	Examples
create, compose and apply	apply	ideas and procedures in unfamiliar situations, content and processes in non-routine settings
	compose	oral, written and multimodal texts, music, visual images, responses to complex topics, new outcomes
	represent	images, symbols or signs
	create	creative thinking to identify areas for change, growth and innovation, recognise opportunities, experiment to achieve innovative solutions, construct objects, imagine alternatives
	manipulate	images, text, data, points of view
analyse,	justify	arguments, points of view, phenomena, choices
synthesise and	hypothesise	statement/theory that can be tested by data
evaluate	extrapolate	trends, cause/effect, impact of a decision
	predict	data, trends, inferences
	evaluate	text, images, points of view, solutions, phenomenon, graphics
	test	validity of assumptions, ideas, procedures, strategies
	argue	trends, cause/effect, strengths and weaknesses
	reflect	on strengths and weaknesses
	synthesise	data and knowledge, points of view from several sources
	analyse	text, images, graphs, data, points of view
	examine	data, visual images, arguments, points of view
	investigate	issues, problems
organise,	sequence	text, data, relationships, arguments, patterns
sequence and	visualise	trends, futures, patterns, cause and effect
explain	compare/contrast	data, visual images, arguments, points of view
	discuss	issues, data, relationships, choices/options
	interpret	symbols, text, images, graphs
	explain	explicit/implicit assumptions, bias, themes/arguments, cause/effect, strengths/weaknesses
	translate	data, visual images, arguments, points of view
	assess	probabilities, choices/options
	select	main points, words, ideas in text
identify,	reproduce	information, data, words, images, graphics
summarise and	respond	data, visual images, arguments, points of view
pian	relate	events, processes, situations
	demonstrate	probabilities, choices/options
	describe	data, visual images, arguments, points of view
	plan	strategies, ideas in text, arguments
	classify	information, data, words, images
	identify	spatial relationships, patterns, interrelationships
	summarise	main points, words, ideas in text, review, draft and edit

Verbs	Definition
Analyse	Consider in detail for the purpose of finding meaning or relationships, and identifying patterns, similarities and differences
Apply	Use, utilise or employ in a particular situation
Argue	Give reasons for or against something
Assess	Make a Judgement about the value of
Classify	Arrange into named categories in order to sort, group or identify
Compare	Estimate, measure or note how things are similar or dissimilar
Compose	The activity that occurs when students produce written, spoken, or visual texts
Contrast	Compare in such a way as to emphasise differences
Create	Bring into existence, to originate
Critically analyse	Analysis that engages with criticism and existing debate on the issue
Demonstrate	Give a practical exhibition an explanation
Describe	Give an account of characteristics or features
Discuss	Talk or write about a topic, taking into account different issues or ideas
Evaluate	Examine and judge the merit or significance of something
Examine	Determine the nature or condition of
Explain	Provide additional information that demonstrates understanding of reasoning and /or application
Extrapolate	Infer from what is known
Hypothesise	Put forward a supposition or conjecture to account for certain facts and used as a basis for further investigation by which it may be proved or disproved
Identify	Recognise and name
Interpret	Draw meaning from
Investigate	Planning, inquiry into and drawing conclusions about
Justify	Show how argument or conclusion is right or reasonable
Manipulate	Adapt or change
Plan	Strategize, develop a series of steps, processes
Predict	Suggest what might happen in the future or as a consequence of something
Reflect	The thought process by which students develop an understanding and appreciation of their own learning. This process draws on both cognitive and affective experience
Relate	Tell or report about happenings, events or circumstances
Represent	Use words, images, symbols or signs to convey meaning
Reproduce	Copy or make close imitation
Respond	React to a person or text
Select	Choose in preference to another or others
Sequence	Arrange in order
Summarise	Give a brief statement of the main points
Synthesise	Combine elements (information/ideas/components) into a coherent whole
Test	Examine qualities
Translate	Express in another language or form, or in simpler terms

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Appendix D – Glossary of Verbs

Appendix E – Glossary for ACT Senior Secondary Curriculum

Courses will detail what teachers are expected to teach and students are expected to learn for year 11 and 12. They will describe the knowledge, understanding and skills that students will be expected to develop for each learning area across the years of schooling.

Learning areas are broad areas of the curriculum, including English, mathematics, science, the arts, languages, health and physical education.

A **subject** is a discrete area of study that is part of a learning area. There may be one or more subjects in a single learning area.

Frameworks are system documents for Years 11 and 12 which provide the basis for the development and accreditation of any course within a designated learning area. In addition, frameworks provide a common basis for assessment, moderation and reporting of student outcomes in courses based on the framework.

The **course** sets out the requirements for the implementation of a subject. Key elements of a course include the rationale, goals, content descriptions, assessment, and achievement standards as designated by the framework.

BSSS courses will be organised into units. A unit is a distinct focus of study within a course. A standard 1.0 unit is delivered for a minimum of 55 hours generally over one semester.

Core units are foundational units that provide students with the breadth of the subject.

Additional units are avenues of learning that cannot be provided for within the four core 1.0 standard units by an adjustment to the program of learning.

An **independent study unit** is a pedagogical approach that empowers students to make decisions about their own learning. Independent study units can be proposed by a student and negotiated with their teacher, but must meet the specific unit goals and content descriptions as they appear in the course.

An **elective** is a lens for demonstrating the content descriptions within a standard 1.0 or half standard 0.5 unit.

A lens is a particular focus or viewpoint within a broader study.

Content descriptions refer to the subject-based knowledge, understanding and skills to be taught and learned.

A **program of learning** is what a college develops to implement the course for a subject and to ensure that the content descriptions are taught and learned.

Achievement standards provide an indication of typical performance at five different levels (corresponding to grades A to E) following completion of study of senior secondary course content for units in a subject.

ACT senior secondary system curriculum comprises all BSSS approved courses of study.

Appendix F – Course Adoption

Conditions of Adoption

The course and units of this course are consistent with the philosophy and goals of the college and the adopting college has the human and physical resources to implement the course.

Adoption Process

Course adoption must be initiated electronically by an email from the principal or their nominated delegate to <u>bssscertification@ed.act.edu.au</u>. A nominated delegate must CC the principal.

The email will include the **Conditions of Adoption** statement above, and the table below adding the **College** name, and circling the **Classification/s** required.

College:	
Course Title:	Design & Graphics
Classification/s:	АТМ
Accredited from:	2020
Framework:	Technologies 2018