DESIGN

GENERAL COURSE

Year 12 syllabus

IMPORTANT INFORMATION

This syllabus is effective from 1 January 2016.

Users of this syllabus are responsible for checking its currency.

Syllabuses are formally reviewed by the School Curriculum and Standards Authority on a cyclical basis, typically every five years.

Content

Rationale

'Design is the human power to conceive, plan, and realise products that serve human beings in the accomplishment of any individual or collective purpose.' (Richard Buchanan, Carnegie Mellon University)

Design involves the strategic development, planning and production of visual and tactile communication. It deals with the effective and efficient communication of ideas, values, beliefs, attitudes, messages and information to specific audiences for specific purposes and with specific intentions.

Design has its own set of theories and practices and incorporates a wide range of principles, methods and techniques drawn from a variety of different disciplines such as: psychology, communication studies, digital design, technical graphics, art, engineering, architecture, sociology, cultural studies, marketing and economics. The disciplined application of these elements forms a design process that guides the development of creative and functionally effective solutions to identified possibilities or problems.

We live in a diverse and constantly changing information-rich society and culture, constantly immersed in design communication. Sometimes the intention of design is to inform, express, educate or entertain. Often the intention is also to influence or persuade. An understanding of design and how it works can enhance an individual's ability to interact with their environment, to learn from it and to grow within it. It also empowers the individual by making them more discerning of, and therefore less susceptible to, manipulation and influence via design.

The goals of the Design General course are to facilitate a deeper understanding of how design works; and how ideas, beliefs, values, attitudes, messages and information are effectively communicated to specific audiences with specific intentions or purposes via visual media forms. This course aims to achieve these goals by exposing students to a variety of communication forms and a thorough exploration of design.

Design projects allow students to demonstrate their skills, techniques and application of design principles and processes; to analyse problems and possibilities; and to devise innovative strategies within design contexts. There is potential for students to develop transferable skills and vocational competencies while devising innovative designs.

In this course, students develop a competitive edge for current and future industry and employment markets. This course also emphasises the scope of design in professional and trade based industries allowing students to maximise vocational and/or university pathways.

Course outcomes

The Design General course is designed to facilitate achievement of the following outcomes.

Outcome 1 – Design understandings

Students understand that design theory, audience response, and design principles are reflected in design.

In achieving this outcome, students:

- understand that communication theories are demonstrated in design

- understand that design and audience behaviours are related.

Outcome 2 – Design process

Students apply the design process to develop design solutions.

In achieving this outcome, students:

- generate ideas to develop design solutions

- refine the development of design solutions.

Outcome 3 – Application of design

Students use skills, techniques and methods to plan, construct and produce design creations.

In achieving this outcome, students:

- use interpretative skills when constructing design creations

- use design skills, techniques and methods to construct creations

- use planning and production methodologies to construct design creations.

Outcome 4 – Design in society

Students understand the relationship between design, society and culture.

In achieving this outcome, students:

- understand how values, beliefs and attitudes are communicated and learned through design

- understand responsibilities and issues in developing design

- understand relationships between social practices and design.

Organisation

This course is organised into a Year 11 syllabus and a Year 12 syllabus. The cognitive complexity of the syllabus content increases from Year 11 to Year 12.

Structure of the syllabus

The Year 12 syllabus is divided into two units which are delivered as a pair. The notional time for the pair of units is 110 class contact hours.

Unit 3 – Product design

The focus for this unit is product design. Students learn that the commercial world is comprised of companies, requiring consumer products, services and brands for a particular audience.

Unit 4 – Cultural design

The focus for this unit is cultural design. Students learn that society is made up of different groups of people who share diverse values, attitudes, beliefs, behaviours and needs; and that different forms of visual communication transmit these values and beliefs.

Each unit includes:

- a unit description – a short description of the focus of the unit

- unit content – the content to be taught and learned.

Organisation of content

Four different contexts have been defined in this course: Photography, Graphic Design, Dimensional Design and Technical Graphics. Students can enrol in more than one context in this course. The course units in each context have different codes.

Photography context

In this context, design may use analogue, and/or digital photographic systems and/or digital media.

Graphic Design context

This context may include elements of digital media, interactive media, graphics technology, technical graphics and visual communication. Whilst these fields share a common link through digital technology, graphics also includes traditional two dimensional design media.

Dimensional Design context

The Dimensional Design context may include elements of fashion, textiles, architecture, furniture design and 3D graphics, including computer-aided design. This context enables the design and production of objects having three dimensional content, including models, glass, jewellery, ceramics, sculpture or a series of design drawings in which any of the three dimensional examples are represented.

Technical Graphics context

The Technical Graphics context uses conventions of technical drawing and computer-aided design to create designs that deal with mainly three dimensional subjects, usually of an industrial nature.

Representation of the general capabilities

The general capabilities encompass the knowledge, skills, behaviours and dispositions that will assist students to live and work successfully in the twenty-first century. Teachers may find opportunities to incorporate the capabilities into the teaching and learning program for the Design General course. The general capabilities are not assessed unless they are identified within the specified unit content.

Literacy

Literacy is of fundamental importance in the study of the Design General course. Students will access design content through a variety of print, oral, visual, spatial and electronic forms, including data books, texts, computer software, images, and written technical materials. They learn to investigate, interpret, and apply design principles from a variety of sources to design solutions for tasks. They analyse and evaluate information for reliability, relevance and accuracy. They learn to monitor their own language use for accuracy in the use of design terms for clarity of ideas, processes and explanations of design activities and development and evaluation of functioning products.

Numeracy

Numeracy is fundamental in calculating materials quantities and evaluating design process costs. Students develop their understanding and skills of numeracy while undertaking tasks to produce, test and evaluate products. Common and context specific theory continues to be studied to forge greater understanding of the scientific, mathematical and technical concepts that explain how designed products function.

Information and communication technology capability

Information and communication technology (ICT) capability is important in all stages of the design process. Students use digital tools and strategies to locate, access, process and analyse information. They use ICT skills and understandings to investigate and devise design ideas. Students access information from websites and software programs to develop design solutions. Students use computer-aided drawing software and computer control software to produce products.

Critical and creative thinking

Critical and creative thinking is integral to the design process. The design thinking methodologies are fundamental to the Design General course. Students develop understandings and skills in critical and creative thinking during periods of evaluation at numerous stages of the design process. They devise plausible solutions to problems, and then through interrogation, critically assess the performance of the most efficient solution. Students identify possible refinements in their design solutions and analyse, evaluate and modify the developing solution to create a prototype.

Personal and social capability

Personal and social capability skills are developed and practiced in the Design General course by students enhancing their communication skills and participating in teamwork. Students have opportunities to work collaboratively during stages of investigation and production of products. Students develop increasing social awareness through the study of the impact of the use of materials and manufacturing technology in society and on the environment.

Ethical understanding

Students have opportunities to explore and understand the diverse perspectives and circumstances that shape the design process, actions and possible motivations of people in the past compared with those of today. Students have opportunities both, independently and collaboratively, to explore the values, beliefs and principles that have influenced past design achievements, and the ethical decisions required by global design processes of today.

Intercultural understanding

Students have opportunities to explore the different beliefs and values of a range of cultural groups and develop an appreciation of cultural diversity. Students have opportunities to develop an understanding of different contemporary perspectives with regard to design inspiration, product styles, building materials, energy supply and use, and design influences on different groups within society, and how they contribute to individual and group actions in the contemporary world.

Representation of the cross-curriculum priorities

The cross-curriculum priorities address the contemporary issues which students face in a globalised world. Teachers may find opportunities to incorporate the priorities into the teaching and learning program for the Design General course. The cross-curriculum priorities are not assessed unless they are identified within the specified unit content.

Aboriginal and Torres Strait Islander histories and cultures

Students may have opportunities to explore Aboriginal and Torres Strait Islander development and use of design and the interconnectedness between design, purpose and innovation, and how these relate to identity, People, Culture and Country/Place.

Asia and Australia's engagement with Asia

Students may have opportunities to explore traditional, contemporary and emerging design achievements in the countries of the Asia region. Students explore Australia's rich and ongoing engagement with the peoples and countries of Asia to create appropriate products and services to meet personal, community, national, regional and global needs.

Sustainability

Students take action to create more sustainable patterns of living. They develop knowledge, understanding and skills necessary to choose design solutions with regard to costs and benefits. They evaluate the extent to which the process and designed solutions embrace sustainability. Students reflect on past and current practices and assess new and emerging designs from a sustainability perspective.

Unit 3 – Product design

Unit description

The focus of this unit is product design. Students learn that the commercial world is comprised of companies, requiring consumer products, services and brands for a particular audience. They are introduced to the concept of intellectual property. Using the design process, they create products/services, visuals and/or layouts with an awareness of codes and conventions. They use relevant and appropriate production skills and processes, materials and technologies relevant to the design.

Defined contexts

Within each context, teachers can choose a learning focus. The list of learning foci below is not exhaustive:

- Photography: magazine design; fashion label design; fashion photography; design of a billboard; product advert; still life photography; advertising photography; product advertisements; product catalogue; landscape photography; food photography/styling

- Graphic Design: product packaging, for example, drink, food processed/fresh, cosmetics, tote/paper bags; T-shirt and swing tag/packaging; corporate identity, for example, logo, business card, letterhead, business report; CD cover; fabric design; poster and flyer for school events, for example, musical, concerts

- Dimensional Design: ergonomic furniture; T-shirt design; ceramics; set design; public art; furniture design; architecture; 3D graphics; audience specific product, for example, use textile processes to develop a soft toy for a child; design of a pop-up picture book, a range of jewellery, costume or uniform design; a 'green' product; a product to solve a future problem or for an educational need

- Technical Graphics: promotional products, for example, lunch boxes, drink bottles; ergonomic design, for example, hair dryers, shavers; kitchen appliances, for example, toasters, could be re-designed to appeal to a broader demographic; motor vehicle styling, component parts, architecture, mechanical, geometric figures

Unit content

An understanding of the Year 11 content is assumed knowledge for students in Year 12. It is recommended that students studying Unit 3 and Unit 4 have completed Unit 1 and Unit 2.

This unit includes the knowledge, understandings and skills described below.

Design

Design elements and principles

- characteristics of elements of design and their application in design:
    - line
    - shape
    - value
    - 3D form
    - space
    - colour
    - type
    - texture

- characteristics of design principles and composition, including Gestalt design principles, such as similarity, proximity, continuation, closure, figure/field, layout principles, alignment, modular/grids, correspondence, visual hierarchy, proportion and unity to create designs

- application of colour theory

Design process and methods

- interpretation of a design brief

- development and documentation of a design process, including research and/or investigation, analysis, idea development and critical reflection

- creation and/or interpretation of diagrams, layouts, plans and drawings

- application of design process, such as visual research, idea generation techniques, synectics, mind maps, brainstorming

- control and manipulation of design skills and techniques in design development

- reflection and evaluation of solutions to design problems

Communication

Communication theories

- introduction to basic communication models relevant to design: Shannon and Weaver – sender (encoding), signal (transmission), noise, receiver (decoding)

- application of simple semiotics relevant to the design process

- consideration of communication environment relevant to the design:
  - physical
  - economic
  - social
  - cultural
  - geographic
  - interpersonal

- application of codes and conventions to reinforce product identification

Stakeholders

- identification of specific audiences in terms of lifestyle behaviour, values and beliefs

- use of representation to create product design

- awareness of copyright, intellectual property issues and personal responsibilities in product design

Production

Production processes and methods

- application of production processes, methods, skills and techniques relevant to the defined context, with an acknowledgement of sustainability and contemporary trends in production processes

- development of suitable formats of presentation for design solutions

Materials and technologies

- selection of safe handling of materials and/or technologies appropriate to the design brief

- occupational safety and health (OSH) concepts relevant to applied production process

Unit 4 – Cultural design

Unit description

The focus of this unit is cultural design. Students learn that society is made up of different groups of people who share diverse values, attitudes, beliefs, behaviours and needs, and that different forms of visual communication transmit these values and beliefs. Students are encouraged to create designs that link to a culture or sub-culture and are introduced to ethical issues concerning representation. Students develop a design process with an understanding of codes and conventions. They consider communication strategies and audience. They define and establish contemporary production skills and processes, materials and technologies.

Defined contexts

Within each context, teachers can choose a learning focus. The list of learning foci below is not exhaustive:

- Photography: festival posters; band promotions; harmony day; portrait, formal portrait photography; social/cultural documentary; community/social photographic studies; Fashion campaign poster; self-image; family portrait album; band poster design; stereotype; montage photography; portrait photography; documentary

- Graphic Design: skateboard/surfboard designs; music festival/ band promotional material; logo/advertising; design for non-profit organisation or sub-culture; sustainable design concepts, for example, green café, canvas shoe design and promotional poster; program design for event or function; advertisement for a particular sub-culture; horoscope symbols for a specific magazine such as Frankie; theme or issue inspired book/magazine/comic book covers; illustrated cover and pages for a teen novel/genre; game cover and promotional T-shirt; greetings cards with cultural context, for example, birthday, sympathy

- Dimensional Design: community projects, such as public art or interior design for a cultural space; signage, icons and fashion for cultural identity; costume design for a contemporary version of Shakespeare or a cultural event; universal design and design for need; cultural jewellery with a cultural reference; paraphernalia for a cause, a mardi gras or festival; a shop window display; giftware; an arts award (the 'new Logie')

- Technical Graphics: architectural design, such as a gallery or public building; dimensional, such as a tourist souvenir or graphic, such as a tattoo; architecture for communities; product design of cultural articles designing with materials appropriate to place and culture

Unit content

This unit builds on the content covered in Unit 3.

This unit includes the knowledge, understandings and skills described below.

Design

Design elements and principles

- characteristics of elements of design and their application in design:
  - line
  - shape
  - value
  - 3D form
  - space
  - colour
  - type
  - texture

- characteristics of design principles and composition, such as: Gestalt design principles, similarity, proximity, continuation, closure, figure/field, layout principles, alignment, modular/grids, correspondence, visual hierarchy, proportion and unity to create designs

- application of colour theory

Design process and methods

- interpretation of a design brief

- development and documentation of a design process: research and/or investigation, analysis, idea development and critical reflection

- creation and/or interpretation of diagrams, layouts, plans and drawings

- application of design process: visual research, idea generation techniques, synectics, mind maps, brainstorming

- control and manipulation of design skills and techniques in design development

- reflection and evaluation of solutions to design problems

Communication

Communication theories

- simple application of basic communication models relevant to design: Shannon and Weaver – sender (encoding) signal (transmission), noise, receiver (decoding) relevant to design

- application of simple semiotics relevant to the design process

- consideration of communication strategies: shock tactics, humour, metaphor and emotion

- application of codes and conventions to reinforce cultural identification

Stakeholders

- design for specific audiences in terms of lifestyle behaviour, values and beliefs with a cultural focus

- relationships between cultures and design forms

- use of representation to create designs that relate to a cultural focus

- awareness of copyright, intellectual property issues and personal responsibilities in cultural design

Production

Production processes and methods

- establishment of appropriate production processes, methods, skills and techniques in the defined context considering sustainability

- development of suitable formats of presentation for design solutions

Materials and technologies

- selection and use of appropriate materials and/or technologies relevant to the design brief with an awareness of alternative materials

- occupational safety and health (OSH) concepts relevant to applied production process

School-based assessment

The Western Australian Certificate of Education (WACE) Manual contains essential information on principles, policies and procedures for school-based assessment that needs to be read in conjunction with this syllabus.

Teachers design school-based assessment tasks to meet the needs of students. The table below provides details of the assessment types for the Design General Year 12 syllabus and the weighting for each assessment type.

Assessment table – Year 12

Type of assessment	Weighting
Production Extended production project in response to a design brief. Students investigate, explore ideas and follow a design process, collating evidence of choices and solutions. This will be completed in a format suitable for presentation to the client. Formats can include digital presentation, display board, prototypes.	65%
Response Students apply their knowledge and skills in responding to a series of stimuli or prompts related to the unit content, including the extended production project. Responses can include short answers, oral presentation, multimodal presentation, flowcharts and diagrams.	20%
Externally set task A written task or item or set of items of one hour duration developed by the School Curriculum and Standards Authority and administered by the school.	15%

Teachers are required to use the assessment table to develop an assessment outline for the pair of units.

The assessment outline must:

- include a set of assessment tasks

- include a general description of each task

- indicate the unit content to be assessed

- indicate a weighting for each task and each assessment type

- include the approximate timing of each task (for example, the week the task is conducted, or the issue and submission dates for an extended task).

All assessment types must be included in the assessment outline at least twice with the exception of the externally set task which only occurs once.

The set of assessment tasks must provide a representative sampling of the content for Unit 3 and Unit 4.

Assessment tasks not administered under test/controlled conditions require appropriate validation/authentication processes.

Externally set task

All students enrolled in the Design General Year 12 course will complete the externally set task developed by the Authority. Schools are required to administer this task in Term 2 at a time prescribed by the Authority.

Externally set task design brief – Year 12

Time	One hour
Format	Written
	Conducted under invigilated conditions
	Typically between two and five questions
	Can require students to refer to stimulus materials or prompts, including the extended production project
Content	The Authority informs schools during Term 3 of the previous year of the Unit 3 syllabus content on which the task will be based

Refer to the WACE Manual for further information.

Grading

Schools report student achievement in terms of the following grades:

Grade	Interpretation
A	Excellent achievement
B	High achievement
C	Satisfactory achievement
D	Limited achievement
E	Very low achievement

The teacher prepares a ranked list and assigns the student a grade for the pair of units. The grade is based on the student's overall performance as judged by reference to a set of pre-determined standards. These standards are defined by grade descriptions and annotated work samples. The grade descriptions for the Design General Year 12 syllabus are provided in Appendix 1. They can also be accessed, together with annotated work samples, through the Guide to Grades link on the course page of the Authority website at www.scsa.wa.edu.au

To be assigned a grade, a student must have had the opportunity to complete the education program, including the assessment program (unless the school accepts that there are exceptional and justifiable circumstances).

Refer to the WACE Manual for further information about the use of a ranked list in the process of assigning grades.

Appendix 1 – Grade descriptions Year 12

A	Presents a well-developed and clear relationship between the purpose of the design brief and the intended audience.
	Explores a range of creative solutions throughout the design process.
	Selects design elements and principles with discernment and applies these consistently with purpose.
	Provides thorough reflection and critical analysis of design thinking.
	Executes control and manipulation of skills and techniques relevant to the design brief.

B	Interprets the design brief and communicates effectively to a clearly identified intended audience.
	Explores some possible creative solutions throughout the design process.
	Effectively selects and applies with purpose design elements and principles.
	Provides clear reflection and some analysis of design thinking.
	Executes skills and techniques relevant to the design brief with control.

C	Satisfies the design brief and communicates to the intended audience.
	Explores solutions throughout some stages of the design process.
	Selects design elements and principles and applies these with some purpose.
	Provides reflective comments of design thinking.
	Uses some skills and techniques relevant to the design brief.

D	Interprets aspects of the brief poorly or incorrectly and communicates tenuously with the intended audience.
	Explores a few solutions throughout some stages of the design process.
	Uses design elements and principles in a basic manner.
	Provides simple reflective comments on aspects of design thinking.
	Applies skills and techniques in an inconsistent way.

E	Does not meet the requirements of a D Grade.