APPLIED INFORMATION TECHNOLOGY

FOUNDATION COURSE

Year 11 syllabus

IMPORTANT INFORMATION

This syllabus is effective from 1 January 2018.

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

Introduction to the Foundation courses

Foundation courses are designed for students who have not demonstrated the Western Australian Certificate of Education (WACE) standard of numeracy and Standard Australian English (SAE) literacy skills. These standards are based on Level 3 of the Australian Core Skills Framework (ACSF) which outlines the skills required for individuals to meet the demands of everyday life and work in a knowledge-based economy.

Foundation courses provide support for the development of functional literacy and numeracy skills essential for students to meet the WACE standard of literacy and numeracy through engagement with the ACSF Level 3 reading, writing, oral communication and numeracy core skills.

The Foundation courses are:

- Applied Information Technology (AIT) (List B)
- Career and Enterprise (List A)
- English (List A)
- English as an Additional Language or Dialect (EAL/D) (List A)
- Health, Physical and Outdoor Education (List B)
- Mathematics (List B)

Eligibility

Eligibility to enrol in Foundation courses is restricted to students who meet the eligibility criteria. For further information regarding eligibility refer to the *WACE Manual* at www.scsa.wa.edu.au/publications/wace-manual.

Literacy and numeracy focus

While much of the explicit teaching of literacy and numeracy occurs in the English, English as an Additional Language or Dialect, and Mathematics Foundation courses, all Foundation courses provide opportunities for the development of the literacy and numeracy capabilities identified in the Pre-primary to Year 10 Western Australian curriculum. Further, a set of literacy and numeracy skills, drawn from both the ACSF (Level 3) core skills of reading, writing, oral communication and numeracy, and the Pre-primary to Year 10 English and Mathematics curriculum, have been identified. These skills are common to all Foundation courses. Where appropriate, opportunities for students to engage in activities with significant literacy and numeracy demands should be the focus of teaching, learning and assessment programs.

Literacy

Literacy involves students:

- developing the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for effective participation in society
- listening to, reading, viewing, speaking, writing and creating, which includes oral, print, visual and digital texts
- using and modifying language for different purposes and for different audiences
- understanding how the English language works in different social contexts.

Foundation courses provide meaningful contexts for learning and practising specific literacy (L) skills as outlined below:

L1   acquiring words leading to an appropriately expanding vocabulary

L2   developing pronunciation and spelling of key words

L3   using Standard Australian English (SAE) grammar and punctuation to communicate effectively

L4   expressing increasingly complex ideas using a range of simple and complex sentence structures

L5   using a range of language features, including the use of tone, symbols, simple description, and factual as opposed to emotive language

L6   organising ideas and information in different forms and for different purposes and audiences

L7   achieving cohesion of ideas at sentence, paragraph and text level

L8   editing work for accuracy, coherence, clarity and appropriateness

L9   using a range of speaking and listening skills

L10 comprehending and interpreting a range of texts

L11 developing visual literacy skills.

Numeracy

Numeracy involves students:

- recognising and understanding the role of mathematics in the world
- developing the dispositions and capacities to use mathematical knowledge and skills purposefully
- increasing their autonomy in managing everyday situations.

Foundation courses provide meaningful contexts for learning and practising specific numeracy (N) skills and mathematical thinking processes as outlined in the examples below:

N1   identifying and organising mathematical information

N2   choosing the appropriate mathematics to complete a task

N3   applying mathematical knowledge, tools and strategies to complete the task

N4   representing and communicating mathematical conclusions

N5   reflecting on mathematical results in order to judge the reasonableness of the conclusions reached.

The level of complexity of mathematical information to which the above numeracy skills are applied is outlined below:

- whole numbers and familiar or routine fractions, decimals and percentages

- dates and time, including 24 hour times

- familiar and routine 2D and 3D shapes, including pyramids and cylinders

- familiar and routine length, mass, volume/capacity, temperature and simple area measures

- familiar and routine maps and plans

- familiar and routine data, tables, graphs and charts, and common chance events.

Representation of the other general capabilities

In addition to the literacy and numeracy capabilities, teachers may find opportunities to incorporate the remaining capabilities into the teaching and learning program for the Applied Information Technology Foundation course. The general capabilities are not assessed unless they are identified within the specified unit content.

Information and communication technology capability

Students develop information and communication technology (ICT) capability as they learn to use ICT effectively and appropriately to access, create and communicate information and ideas, solve problems and work collaboratively, and in their lives beyond school. The ICT capability involves students in learning to make the most of the digital technologies available to them. They adapt to new ways of doing things as technologies evolve, and limit the risks to themselves and others in a digital environment.

Critical and creative thinking

Students develop capability in critical and creative thinking as they learn to generate and evaluate knowledge, clarify concepts and ideas, seek possibilities, consider alternatives and solve problems. Critical and creative thinking are integral to activities that require students to think broadly and deeply, using skills, behaviours and dispositions such as reason, logic, resourcefulness, imagination and innovation in all learning areas at school and in their lives beyond school.

Personal and social capability

Students develop personal and social capability as they learn to understand themselves and others, and manage their relationships, lives, work and learning more effectively. Personal and social capability involves students in a range of practices, including: recognising and regulating emotions; developing empathy for others and understanding relationships; establishing and building positive relationships; making responsible decisions; working effectively in teams; handling challenging situations constructively; and developing leadership skills.

Ethical understanding

Students develop ethical understanding as they identify and investigate concepts, values, character traits and principles, and understand how reasoning can help ethical judgement. Ethical understanding involves students in building a strong personal and socially oriented, ethical outlook that helps them to manage context, conflict and uncertainty, and to develop an awareness of the influence that their values and behaviour have on others.

Intercultural understanding

Students develop intercultural understanding as they learn to value their own cultures, languages and beliefs and those of others. They come to understand how personal, group and national identities are shaped, and the variable and changing nature of culture. The capability involves students in learning about, and engaging with, diverse cultures in ways that recognise commonalities and differences, create connections with others and cultivate mutual respect.

Representation of the cross-curriculum priorities

The cross-curriculum priorities address 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 Applied Information Technology Foundation 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

The Applied Information Technology Foundation course may provide opportunities for students to learn about Aboriginal and Torres Strait Islander histories and cultures. Students could explore creative, engaging and diverse learning contexts so they can value and appreciate the contribution by the world's oldest continuous living cultures to past, present and emerging technologies.

Asia and Australia's engagement with Asia

The Applied Information Technology Foundation course may provide opportunities for students to explore contemporary and emerging technological achievements that the Asia region and Pacific region have made, and continue to make, to global technological advances, including: innovation in hardware and software design and development; the regions' role in outsourcing of information and communications technologies (ICT) services; and globalisation. Students could also consider the contribution of Australia's contemporary and emerging technological achievements to the Asia and Pacific region.

Sustainability

The Applied Information Technology Foundation course may provide an opportunity for students, within authentic contexts, to choose and evaluate digital technologies and information systems with regard to the risks and opportunities they present. Students could evaluate the extent to which information systems solutions can embrace sustainability. Students could also reflect on current practices, and assess new and emerging technologies from a sustainability perspective.

Progression from the Year 7–10 curriculum

This course builds on the content within the Year 7–10 Digital Technologies curriculum. The course continues student learning within the knowledge, understandings and skills from the following strands and their associated sub-strands.

- Knowledge and understanding: Digital systems

- Processes and production skills: Collecting, managing and analysing data and creating digital solutions.

Rationale for the Applied Information Technology Foundation course

The development and application of digital technologies impacts upon most aspects of living and working in our society. Information and communication technologies have changed how people interact and exchange information. These technologies have created new opportunities and challenges in lifestyle, entertainment, education and business. Possessing an awareness of the potential, and the ability to use and exploit these technologies, provides individuals with the ability to participate within the wider community.

A key focus of this course is the development of literacy and numeracy skills, within an information and communication technologies context, relevant to a range of career, further study and work pathways. Students will explore and apply the essential skills of literacy and numeracy in both work and personal contexts.

This course provides students with the opportunity to develop the knowledge, understandings and skills to use information and communication technologies in a responsible and informed manner.

The course caters for a range of students' needs and interests. The course structure enables a flexibility of approach and delivery to meet these needs through a combination and/or integration of core modules and electives. Each unit is comprised of a combination of core modules and electives modules that provide a focus and extension to meet students' needs.

Course outcomes

The Applied Information Technology Foundation course is designed to facilitate achievement of the following outcomes.

Outcome 1 – Design process

Students apply a design process when creating or modifying information solutions using digital technologies for personal use.

In achieving this outcome, students:

- research ideas, considering alternatives
- analyse, design, produce, communicate and evaluate proposals in an efficient and appropriate manner.

Outcome 2 – Understanding digital communication technologies

Students understand the nature and use of computer hardware and software to achieve digital solutions.

In achieving this outcome, students:

- understand the digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use
- understand procedures, techniques and time management skills relevant to personal use
- produce a quality solution that adheres to the accepted standards and conventions associated with the content relevant to personal use.

Outcome 3 – Impacts of technology

Students understand how legal, ethical and social considerations are interconnected in the development of digital solutions.

In achieving this outcome, students:

- understand the legal, ethical and social consequences that digital developments have in effectively securing data
- understand the legal, ethical and social implications of data distribution.

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 11 syllabus is divided into two units, each of one semester duration, which are typically delivered as a pair. The notional time for each unit is 55 class contact hours.

Unit 1

This unit is comprised of five core modules, which are compulsory.

C11.1	The computer system
C11.2	Word processing and data management
C11.3	Presentation software
C11.4	Digital citizenship
C11.5	Project management

Unit 2

This unit is comprised of two core modules and two electives modules selected from a set of four elective modules.

C11.6	Spreadsheets
C11.7	Social collaboration

Elective modules

E11.1	Keyboarding
E11.2	Desktop publishing
E11.3	Databases
E11.4	Digital photography and graphics manipulation

To ensure breadth and depth of learning, core modules and elective modules cannot be repeated.

Each core module and elective module includes:

* module description – a short description of the focus of the module
* module content – the content to be taught and learned

Learning activities which could be included in a teaching and learning program can be found in the teacher support materials on the Applied Information Technology course page on the Authority website at www.scsa.wa.edu.au.

The table below illustrates the structure of the Year 11 syllabus.

Unit	Time allocation for the unit (hours)	Core modules	Time allocation (hours)	Electives	Elective time allocation (hours)
1	55	C11.1 The computer system	12		0
		C11.2 Word processing and data management	12		
		C11.3 Presentation software	12		
		C11.4 Digital citizenship	7		
		C11.5 Project management	12		
2	55	C11.6 Spreadsheets	12	Choose two from four elective modules	36
		C11.7 Social collaboration	7		

When deciding which elective modules to be taught, teachers should consider the needs, interests and abilities of students.

Resources

It is recommended that, for delivery of the course, students have access to the following resources:

- computers with access to the internet

- peripheral devices, including:
  - scanner/photocopier/printer (multi-function device)
  - printer(s)
  - digital still and video cameras
  - microphones and speakers
  - mobile devices

- applications software
  - spreadsheet software
  - word processing software
  - presentation software
  - multimedia software
  - digital photograph editing software
  - personal communication software
  - collaborative management software
  - browser software
  - web authoring software

Unit 1

This unit is comprised of five core modules which are compulsory.

Core modules

C11.1   The computer system
C11.2   Word processing and data management
C11.3   Presentation software
C11.4   Digital citizenship
C11.5   Project management

To ensure breadth and depth of learning, core modules cannot be repeated.

Literacy and numeracy skills developed through the study of Unit 1

The core modules should involve, where appropriate, explicit teaching of the following literacy (L) and numeracy (N) skills in the context of the Applied Information Technology Foundation course.

Literacy

L1   acquiring words leading to an appropriately expanding vocabulary; for example, hardware, software secondary memory and virus

L2   developing pronunciation and spelling of key words; for example, ergonomic, troubleshooting and syndrome

L3   using Standard Australian English (SAE) grammar and punctuation to communicate effectively

L4   expressing increasingly complex ideas using a range of simple and complex sentence structures

L5   using a range of language features, including the use of tone, symbols, simple description, and factual as opposed to emotive language

L6   organising ideas and information in different forms and for different purposes and audiences; for example, providing information in dot point form and/or providing information in an explosion chart

L7   achieving cohesion of ideas at sentence, paragraph and text level

L8   editing work for accuracy, coherence, clarity and appropriateness; for example, ensuring subject and verb agreement, the correct use of apostrophes, and the appropriate use of vocabulary and verb forms

L9   using a range of speaking and listening skills; for example, using the etiquette of 'turn taking' in conversation and discussion, asking clarifying questions when listening, matching tone of voice to audience, and using a pause for emphasis

L10   comprehending and interpreting a range of texts; for example, different job application formats

L11   developing visual literacy skills; for example, creating images, designing graphs, reading tables and interpreting diagrams and symbols.

Numeracy

N1   identifying and organising mathematical information; for example, finding information about the relationship between typing speed and keyboard accuracy

N2   choosing the appropriate mathematics to complete a task; for example, identify a rule required to calculate typing speed and keyboard accuracy

N3   applying mathematical knowledge, tools and strategies to complete the task; for example, use a calculator and the rule to determine the keyboard accuracy and typing speed

N4   representing and communicating mathematical conclusions; for example, represent the typing speed and keyboard accuracy for a period of time in table form

N5   reflecting on mathematical results in order to judge the reasonableness of the conclusions reached; for example, check the calculated typing speed and keyboard accuracy is consistent with a predicted result.

C11.1 The computer system

Module description

This module focuses on identifying and applying skills to operate a personal computer safely, and identifying basic workplace safety and health (WSH) practices. Students learn of the key components of a computer system in relation to the user's needs.

Time allocation

The notional time for this module is 12 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with the computer system:
  - hardware
  - software
  - user
  - desktop
  - computer system
  - input
  - output
  - processing
  - storage
  - operating system
  - application

- the purpose of a computer system

- the concept of a computer system, including:
  - hardware
  - software
  - user

- types of computer systems, including:
  - desktop
  - mobile

- purpose and types of hardware devices of a computer system
  - input
  - processing
  - output
  - storage
  - communication

- purpose and types of computer software
    - operating system
    - application
    - utility

- troubleshooting techniques to resolve common computer system faults

- ergonomic and workplace safety and health (WSH) considerations in the setup and use of a computer workstation, including:
    - lighting
    - ventilation
    - correct posture
    - regular exercise

- health risks associated with prolonged use of ICT, including:
    - occupational overuse syndrome (OOS)
    - back strain
    - eye strain

Applied Information Technology skills

- use troubleshooting techniques to resolve common computer system faults

- apply appropriate ergonomic practices when using a computer

- identify WSH and health risks related to ICT use

C11.2   Word processing and data management

Module description

This module focuses on developing the knowledge, understandings and skills to operate word processing software, and apply a simple data management structure to manage and organise a personal digital workspace. Students learn to perform simple operations, including creating, formatting and printing documents and managing personal data.

Time allocation

The notional time for this module is 12 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with the computer system:
  - font
  - alignment
  - format
  - header/footer
  - file
  - folder

- features of word processing software for personal use, including:
  - document creation
  - fonts, including:
    - size
    - style
  - document formatting, including:
    - format
    - table
    - line spacing
    - alignment
    - graphics and objects
    - headers/footers

- edit and proofreading functions, including:
  - spell check and grammar check
  - print preview and print options

- data management techniques for a personal digital workspace, including the use of:
  - passwords
  - files and folders
  - file and folder naming conventions
  - document version control

Applied Information Technology skills

- use word processing software for personal use
- use word processing software for personal use to create, format and print documents
- apply edit and proofreading functions when using word processing software
- apply simple personal data management techniques to store and access electronic documents

C11.3 Presentation software

Module description

This module focuses on developing the knowledge, understandings and skills to operate presentation software. Students learn to perform simple operations, including creating and formatting presentations. Students create presentations that cater for a target audience.

Time allocation

The notional time for this module is 12 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with presentation software:
  - layout
  - template
  - transitions
  - animation
  - hyperlinks
  - font
  - target audience
  - elements of design
  - principles of design

- features of presentation software, including:
  - document creation
  - design layout and/or templates
  - transitions
  - animation
  - hyperlinks
  - bullets
  - graphics/clip art
  - print preview and print options

- features of fonts, including:
  - size
  - alignment
  - format
  - spacing

- the concept of target audience

- the elements of design
  - line
  - shape
  - space
  - colours

- the principles of design
  - balance
  - emphasis

Applied Information Technology skills

- use presentation software

- plan and create a digital presentation that meets the requirements of a target audience and applies the appropriate elements of design and the principles of design

- present a digital presentation using presentation software

- apply edit and proofreading functions when using presentation software

C11.4   Digital citizenship

Module description

This module focuses on developing the knowledge, understandings and skills to use email software and the internet efficiently and safely. Students develop skills that can be applied while working online to make them competent users. They also learn of the aspects of online privacy and copyright. Students will learn strategies to minimise online risks.

Time allocation

The notional time for this module is 7 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with digital citizenship:
  - search
  - privacy
  - netiquette
  - Boolean
  - phishing
  - virus
  - SPAM

- features of email software, including:
  - To
  - CC
  - BCC
  - Subject
  - Message
  - Attachments

- the concept of email netiquette

- Boolean search operators
  - AND
  - OR
  - NOT

- components of the Uniform Resource Locator (URL):
  - protocol (http://)
  - server (www)
  - domain
  - purpose (com, edu, gov, net, org)
  - country

- considerations for the determination of the validity and accuracy of online sources, including:
    - date last updated
    - publication date
    - author

- the concept of privacy in an online environment related to the use of email and social media

- methods of maintaining personal privacy and the non-disclosure of personal details when online, including:
    - turning off location services (GPS location)
    - using online security techniques, including; passwords
    - using privacy settings in social media software
    - using avatars

- risks of personal online use, including:
    - cyber stalking
    - identity theft
    - cyber bullying
    - phishing
    - slander
    - viruses
    - SPAM

- the concept of copyright in an online environment related to the use of email and social media

- strategies for acknowledging copyright, including:
    - citing references
    - bibliographies

Applied Information Technology skills

- use email software for personal use

- conduct an online search using Boolean search operators

- apply personal strategies when using email to ensure online security

- apply strategies to assess the accuracy of information from an online site

- apply strategies for acknowledging copyright

C11.5 Project management

Module description

This module focuses on developing knowledge, understanding and skills to use aspects of a design process when producing a digital product and/or digital solution. Students learn time management strategies which can be applied to all aspects of personal ICT use, and which can assist students to become more efficient in the development of a digital product and/or solution.

Time allocation

The notional time for this module is 12 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with project management:
  - target audience
  - design process
  - digital product
  - digital solution
  - time management
  - storyboards

- components of a design process for the design of a digital product and/or digital solution, including:
  - investigate and plan
  - design and draft
  - produce
  - evaluate

- the concept of target audience

- the concept of time management

- time management strategies, including:
  - time plans
  - journals

- techniques for representing the design of a digital product and/or digital solution, including:
  - annotated diagrams/sketches
  - storyboards

- criteria and methods for evaluating a digital product and/or digital solution, including:
  - peer
  - self
  - target audience

Applied Information Technology skills

- apply time management techniques

- apply techniques to represent a draft/storyboard

- apply a design process to create a digital product and/or digital solution

Unit 2

This unit is comprised of two core modules, which are compulsory and two elective modules. The unit builds on the content covered in Unit 1.

Core modules

C11.6   Spreadsheets
C11.7   Social collaboration

Elective modules

E11.1   Keyboarding
E11.2   Desktop publishing
E11.3   Databases
E11.4   Digital photography and graphics manipulation

To ensure breadth and depth of learning, core modules and elective modules cannot be repeated.

A description, learning outcomes and content for each elective module is provided in Appendix 2.

Literacy and Numeracy skills developed through the study of Unit 2

The core modules should involve, where appropriate, explicit teaching of the following literacy (L) and numeracy (N) skills in the context of the Applied Information Technology Foundation course.

Literacy

L1   acquiring words leading to an appropriately expanding vocabulary; for example, discipline-related words such as server, protocol and secondary memory

L2   developing pronunciation and spelling of key words; for example, discipline-related words such as phishing

L3   using Standard Australian English (SAE) grammar and punctuation to communicate effectively

L4   expressing increasingly complex ideas using a range of simple and complex sentence structures

L5   using a range of language features, including the use of tone, symbols, simple description, and factual as opposed to emotive language

L6   organising ideas and information in different forms and for different purposes and audiences; for example, providing information in dot point form, and/or providing information in an explosion chart

L7   achieving cohesion of ideas at sentence, paragraph and text level

L8   editing work for accuracy, coherence, clarity and appropriateness; for example, ensuring subject and verb agreement, the correct use of apostrophes, and the appropriate use of vocabulary and verb forms

L9   using a range of speaking and listening skills; for example, using the etiquette of 'turn taking' in conversation and discussion, asking clarifying questions when listening, matching tone of voice to audience, and using a pause for emphasis

L10   comprehending and interpreting a range of texts

L11   developing visual literacy skills; for example, create images, designing graphs, reading tables and interpreting diagrams and symbols.

Numeracy

N1   identifying and organising mathematical information; for example, in Foundation Applied Information Technology; finding information about the relationship between typing speed and keyboard accuracy

N2   choosing the appropriate mathematics to complete a task; for example, identify a rule required to calculate typing speed and keyboard accuracy

N3   applying mathematical knowledge, tools and strategies to complete the task; for example, use a calculator and the rule to determine the keyboard accuracy and typing speed

N4   representing and communicating mathematical conclusions; for example, represent the typing speed and keyboard accuracy for a period-of-time in table form

N5   reflecting on mathematical results in order to judge the reasonableness of the conclusions reached; for example, check the calculated typing speed and keyboard accuracy is consistent with a predicted result.

C11.6   Spreadsheets

Module description

This module focuses on developing the knowledge, understandings and skills to operate a spreadsheet program. Students learn simple spreadsheet operations, including: creating, formatting, incorporating charts and objects, and printing spreadsheets for personal use.

Time allocation

The notional time for this module is 12 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with spreadsheets:
    - row
    - column
    - cell
    - worksheet
    - formula
    - function
    - chart
    - border

- features of spreadsheet software for personal use, including:
    - document creation
    - components (rows, columns, cell reference, menus, formula bar, worksheets)
    - simple formulas (addition, subtraction, multiplication and division)
    - simple functions (sum, average)
    - cell formats (text, date, currency)
    - charts and graphics
    - print preview and print options

- considerations for the design and layout of spreadsheets for personal use, including:
    - font, size and type
    - colour
    - layout
    - alignment
    - border

Applied Information Technology skills

- apply formulas, functions and graphics to a spreadsheet

- create charts from a spreadsheet

- use spreadsheet software to create a simple spreadsheet for personal use

- apply design and layout concepts when creating design and layout of spreadsheets

- apply edit and proofreading functions when using spreadsheet software

C11.7   Social collaboration

Module description

This module focuses on developing the knowledge, understandings and skills to develop an awareness of the importance of e-learning, online communication, social media tools, and the role of e-commerce within a digital society.

Time allocation

The notional time for this module is 7 class contact hours.

Module content

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

Applied Information Technology knowledge

- key words associated with social collaboration:
    - blogs
    - forums
    - e-learning
    - e-commerce

- online communication and social media tools, including:
    - blogs
    - forums
    - news sites
    - photo-sharing sites
    - online games
    - YouTube

- the concept of e-learning

- the concept of e-commerce

- advantages and disadvantages of online banking

- advantages and disadvantages of online buying and selling

Applied Information Technology skills

- use online communication, social media and e-learning tools

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 Applied Information Technology Foundation Year 11 syllabus and the weighting for each assessment type.

Assessment table – Year 11

Type of assessment	Weighting
Project Students research information technology based ideas and processes to create digital solutions. This involves the application of project management approaches/techniques to a design process. The project can require students to respond to stimulus materials, which can include: extracts from newspapers or journal articles; screen captures of online media, diagrams, multimedia and/or graphics; and/or a scenario.	70%
Short answer Short answer questions require students to respond to specific questions and/or analyse digital technology products and/or trends. Formats can include multiple-choice, and open and closed questions that can be scaffolded or sectionalised. Scaffolded or sectionalised questions may increase in difficulty. Questions can require students to refer to stimulus materials, which can include: extracts from newspapers or journal articles; screen captures of online media, diagrams, multimedia and/or graphics; and/or a scenario.	20%
Extended answer Extended answer questions require students to respond to questions which are connected by a theme, idea or concept. Questions can require students to refer to stimulus materials, which can include: extracts from newspapers or journal articles; and/or screen captures of online media, diagrams, multimedia and/or graphics; and/or a scenario.	10%

Teachers are required to use the assessment table to develop an assessment outline for the pair of units (or for a single unit where only one is being studied).

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).

In the assessment outline for the pair of units, each assessment type must be included at least twice. In the assessment outline where a single unit is being studied, each assessment type must be included at least once.

The set of assessment tasks must provide a representative sampling of the content for Unit 1 and Unit 2.

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

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 (or for a unit where only one unit is being studied). 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 Applied Information Technology Foundation Year 11 syllabus are provided in Appendix 1.

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 11

<table>
<tr>
<td rowspan="3">A</td>
<td>**Design process**
Consistently researches ideas, considering options when creating or modifying digital solutions for personal use.
Consistently analyses, designs, produces, communicates and evaluates proposals in an efficient and appropriate manner.</td>
</tr>
<tr>
<td>**Understanding digital communication technologies**
Consistently applies the digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use.
Consistently applies the procedures, techniques and time management skills relevant to the personal use of digital technologies.
Consistently produces a quality digital solution that reflects the accepted standards and conventions associated with the provided context and that is relevant for personal use.</td>
</tr>
<tr>
<td>**Impacts of technology**
Consistently demonstrates an accurate understanding of the legal, ethical and social consequences that digital developments have in effectively securing data for personal use.
Consistently demonstrates an accurate understanding of the legal, ethical and social implications associated with data distribution and the use of digital communication technologies.</td>
</tr>
<tr>
<td rowspan="3">B</td>
<td>**Design process**
With minimal guidance, researches ideas, considering options when creating or modifying digital solutions for personal use.
With minimal guidance, analyses designs, produces, communicates and evaluates proposals in an efficient and appropriate manner.</td>
</tr>
<tr>
<td>**Understanding digital communication technologies**
Often applies the digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use.
Often applies the procedures, techniques and time management skills relevant to the personal use of digital technologies.
Often produces a quality digital solution that reflects the accepted standards and conventions associated with the provided context and that is relevant for personal use.</td>
</tr>
<tr>
<td>**Impacts of technology**
Demonstrates an understanding of the legal, ethical and social consequences that digital developments have in effectively securing data for personal use.
Demonstrates an understanding of the legal, ethical and social implications associated with data distribution and the use of digital communication technologies.</td>
</tr>
</table>

C	**Design process** With guidance, researches ideas, considering options when creating or modifying digital solutions for personal use. With guidance, analyses, designs, produces, communicates and evaluates proposals in an efficient and appropriate manner.
	Understanding digital communication technologies Sometimes applies the digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use. Sometimes applies the procedures, techniques and time management skills relevant to the personal use of digital technologies. Sometimes produces a digital solution that reflects the accepted standards and conventions associated with the provided context and that is relevant for personal use.
	Impacts of technology Sometimes demonstrates an understanding of the legal, ethical and social consequences that digital developments have in effectively securing data for personal use. Sometimes demonstrates an accurate understanding of the legal, ethical and social implications associated with data distribution and the use of digital communication technologies.

D	**Design process** Demonstrates a limited ability to research ideas or consider options when creating or modifying digital solutions for personal use. Demonstrates a limited ability to analyse, design, produce, communicate and evaluate proposals in an efficient and appropriate manner.
	Understanding digital communication technologies Demonstrates a limited capacity to apply digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use. Demonstrates a limited capacity to apply the procedures, techniques and time management skills relevant to the personal use of digital technologies. Demonstrates a limited capacity to apply the accepted standards and conventions associated with the provided context and that is relevant for personal use.
	Impacts of technology Demonstrates a limited understanding of the legal, ethical and social consequences that digital developments have in effectively securing data for personal use. Demonstrates a limited understanding of the legal, ethical and social implications associated with data distribution and the use of digital communication technologies.

E	**Design process** Demonstrates a very limited or no capacity to research ideas or consider options when creating or modifying digital solutions for personal use. Demonstrates a very limited or no capacity to analyse, design, produce, communicate and evaluate proposals in an efficient and appropriate manner.
	Understanding digital communication technologies Demonstrates little or no evidence of the digital concepts, formats and terminology required to select and use appropriate software and hardware for personal use. Demonstrates little or no evidence of the procedures, techniques and time management skills relevant to the personal use of digital technologies. Demonstrates little or no evidence of the capacity to apply that reflects the accepted standards and conventions associated with the provided context and that is relevant for personal use.
	Impacts of technology Provides little or no understanding of the legal, ethical and social consequences that digital developments have in effectively securing data for personal use. Provides little or no understanding of the legal, ethical and social implications associated with data distribution and the use of digital communication technologies.

Appendix 2 – Elective modules Year 11

The elective modules for unit 2 are listed below. Two elective modules are selected by the teacher to make up 36 hours of the 55 hour unit. The set of elective modules for unit 2 are:

E 11.1   Keyboarding

E 11.2   Desktop publishing

E 11.3   Databases

E 11.4   Digital photography and graphics manipulation

To ensure breadth and depth of learning, elective modules cannot be repeated.

Time allocation

The notional time for each elective module is 18 class contact hours.

E11.1 Keyboarding

Module description

This module focuses on developing the knowledge, understandings and skills to develop appropriate touch typing and keyboarding skills.

Time allocation

The notional time for this module is 18 class contact hours.

Module content

This elective module includes the knowledge, understandings and skills described below.

Applied Information Technology knowledge

- key words associated with keyboarding:
  - keyboard
  - mouse
  - screen
  - touch typing
  - keyboard speed
  - keyboard accuracy

- touch typing techniques

- the concepts of keyboard speed and keyboard accuracy

- proofreading and correction methods

- ergonomic considerations for keyboarding, including:
  - chair design, height, seat and back adjustment
  - keyboard, mouse and screen position
  - lighting
  - screen glare

- techniques to reduce injury related to keyboarding, including:
  - regular exercise breaks and rest periods
  - variation of tasks

Applied Information Technology skills

- set up of a personal workstation to apply appropriate ergonomic considerations

- use keyboard functions for both alpha and numeric keyboards layouts

- apply touch typing technique

- calculate keyboard speed and accuracy

- proofread a document and correct errors

E11.2 Desktop publishing

Module description

This module focuses on developing the knowledge, understandings and skills to use desktop publishing software. Students explore a range desktop publishing features and use them to create products for a purpose.

Time allocation

The notional time for this module is 18 class contact hours.

Module content

This elective module includes the knowledge, understandings and skills described below.

Applied Information Technology knowledge

- key words associated with desktop publishing:
  - desktop publishing
  - template
  - image frame
  - text frame

- the concept of desktop publishing

- the purpose of a desktop publishing template

- types of desktop publishing templates, including:
  - brochure
  - calendar
  - cards

- features of a desktop publishing applications, including:
  - image frame
  - text frame
  - margins
  - document size
  - basic editing functions, including:
    - insert
    - rotate
    - order
    - re-size
    - format options
    - colour scheme selections

Applied Information Technology skills

- use desktop publishing software for personal use

- use desktop publishing software templates

- use desktop publishing software to produce a digital product and/or digital solution

- apply edit and proofreading functions when using desktop publishing software

E11.3   Databases

Module description

This module focuses on developing the knowledge, understandings and skills of databases develop skills in accessing and searching online databases. Students will create a simple database for a given purpose.

Time allocation

The notional time for this module is 18 class contact hours.

Module content

This elective module includes the knowledge, understandings and skills described below.

Applied Information Technology knowledge

- key words associated with databases:
  - data
  - information
  - database
  - search
  - interface
  - filter
  - sort
  - field
  - record

- the concepts of data and information

- the concept of a database

- features of databases, including:
  - file
  - record
  - field
  - data type (text, number, date)
  - interface
  - data searching
  - data filtering and sorting

- strategies for use of an online database, including:
  - select an appropriate database
  - select an appropriate search terms and fields
  - use of Boolean operators (AND, OR, NOT)
  - determine accuracy of the search result

Applied Information Technology skills

- construct a search, using an appropriate database, including: search terms and/or Boolean operators

- create a simple database for a given purpose.

E11.4 Digital photography and graphics manipulation

Module description

This module focuses on developing the knowledge, understandings and skills to use digital cameras to take digital photographs. Students also learn the value of applying the design aspects of photo composition to take effective digital photographs, and the concepts and skills for simple photo editing to improve their digital photographs.

Time allocation

The notional time for this module is 18 class contact hours.

Module content

This elective module includes the knowledge, understandings and skills described below.

Applied Information Technology knowledge

- key words associated with digital photography and graphics manipulation:
  - file size
  - resolution
  - alignment
  - crop
  - red eye
  - layers
  - defamation
  - bias

- features of a digital camera

- considerations for taking digital photographs, including:
  - format, including: file size and file format
  - resolution
  - exposure/lighting

- considerations for the composition of digital photographs, including:
  - colour
  - space
  - horizontal and vertical alignment
  - contrast
  - rule of thirds

- features of digital image editing software, including:
  - crop
  - red eye removal
  - brightness
  - contrast
  - rotate
  - flip
  - background removal
  - use of layers
  - text in graphics

- social issues related to the manipulation of digital photographs and/or images, including:
  - defamation
  - bias

Applied Information Technology skills

- use a digital camera

- apply considerations for:
  - taking digital photographs
  - the composition of digital photographs

- use digital image editing software to edit digital images