School administrators, Heads of Learning Area – Technologies and Teachers of Computer Science ATAR Year 12 are requested to note for 2026 the following minor syllabus changes. The syllabus is labelled as 'For teaching from 2026'.

Computer Science | ATAR Year 12 | Summary of minor syllabus changes for 2026

The content identified by ~~strikethrough~~ has been deleted from the syllabus and the content identified in *italics* has been revised in the syllabus for teaching from 2026.

Unit 3

Programming skills and concepts

Knowledge

- program control structures, including:
  - sequence
  - selection
  - iteration
    - *fixed*
    - post-test
    - pre-test
- modular coding using functions, parameters and arguments
  - scope of variables (Global, Local)
  - *parameter passing (value and reference)*

Skills

- apply, using pseudocode and*/or* ~~a~~ *the Python* programming language, program control structures in solutions
- apply, using pseudocode and*/or* ~~a~~ *the Python* programming language, data types used in solutions as variables
- apply, using pseudocode and*/or* ~~a~~ the *Python* programming language, modular coding using functions, parameters and arguments
- apply, using pseudocode ~~and a *Python* programming language~~, the following data structures:
  - arrays
    - one-dimensional arrays
    - two-dimensional arrays

Good programming practice

Knowledge

- Framework for development
  - develop
    - develop and debug code
    - unit testing ~~and use of live data~~

Structured algorithms

Knowledge

- common algorithms
  - *purpose of* Big O notation
  - *identify Big O notation for search and sort algorithms*

Skills

- use pseudocode and/or *Python* programming language for representing algorithms

Error detection and debugging code

Knowledge

- the process of detecting and correcting errors, including:
  - types of error
    - runtime errors, including:
    - ~~arithmetic overflow~~
      - division by zero
      - index out of range

Skills

- detecting and correcting errors, including:
  - types of error
  - syntax errors
  - logic errors
  - runtime errors, including:
    - ~~arithmetic overflow~~
    - division by zero
    - index out of range

Object-oriented programming

Skills

- apply, using pseudocode and*/or the Python* programming language, object-oriented programming concepts, including:
  - classes
  - objects
  - attributes
  - methods~~/operations~~
  - abstraction
  - instantiation
  - inheritance

Ethical and legal implications for developers of software

Knowledge

- ~~concepts associated with privacy and copyright law in relation to software development in Australia~~

Models of networking

Knowledge

- *subnetting*
  - subnet masks
  - *Classless Inter-Domain Routing (CIDR) notation*

Skills

- identify *and* design *subnets,* ~~and~~ apply*ing* subnet masks *and CIDR notation*

Network components

Knowledge

- role of components at different network layers
  - transmission media
  - *modem*
  - router
  - gateway
  - switch
  - wireless access point
  - firewalls

Network performance

Knowledge

- bandwidth
  - mapping networks using diagrams including intermediary and end devices
  - subnetting and ~~collision~~ *broadcast* domains (segmentation)

Unit 4

Network threats

Knowledge

- external network threats
  - types of malware
    - *viruses*
    - *worms*
    - *trojan horses*
    - *spyware*
    - *adware*
    - *ransomware*

Security frameworks

Knowledge

- *the CIA triad model of security analysis*
  - confidentiality
  - integrity
  - av*ailability*
- *the AAA framework for securing systems*
  - authentication
  - authorisation
  - accounting

Skills

- *use the CIA triad to analyse security threats and incidents*
- *use the AAA framework for security analysis and auditing*

Data modelling

Skills

- analyse ER diagrams written in crow's foot notation (~~three~~ *up to* 10 tables)

Database creation and manipulation

Knowledge

- know techniques to retrieve required information through querying data sets *using SQL* ~~including:~~
- ~~searching, sorting and filtering to identify relationships and patterns~~
- *purpose of* cleaning and manipulating data sets to import required data into a database

Skills

- use SQL to create, modify and ~~manipulate~~ *query* a database including:
  - CREATE and MODIFY tables, including:
    - use of constraints to ensure validity of data
    - enforcing referential integrity
- ~~apply techniques to retrieve required information through querying data sets, including:~~
- ~~searching, sorting and filtering to identify relationships and patterns~~
- clean~~ing~~ and *manipulate* data sets to import required data into a database