



Curriculum

Outline of Content

Year 9



Assessment

Autumn Term

System Architecture -

Von Neumann Architecture, Purpose and Characteristics of Embedded Systems, Examples of Embedded Systems

Memory & Storage -

Need for secondary Storage

Binary -

Images, Pixels and Binary, Metadata, Digital Audio, Compression (Lossy, Lossless)

Spring Term

Networks Topologies -

Star, Bus, Mesh, Pros and Cons, Strengths and Weaknesses, LAN, WAN, Wireless, protocol layers

Network Security -

Network Vulnerabilities

Ethics Legal & Cultural -

Stakeholders, Environmental impact, Labour and Human right issues, Computers and the Law

Summer Term

Advanced Programming

Input Validation, Maintainability

Databases, Normalization, SQL, Create, Select, Insert, Update, Delete, From, Where, Sorting, Joins, Operators, Correlated Subselects, Database Projects, Defensive Design (SQL Injection)

Programming Languages

Autumn Term

- End of term assessment on Autumn term content

Spring Term

- End of term assessment on Autumn and Spring term content

Summer Term

- End of term assessment on Autumn, Spring and Summer term content

End of Year Grade

- Result from Summer term assessment