

Year 13

Timing	Unit Title	Key Question	Knowledge	Assessing Understanding
Autumn Term	Data Structures	How is data stored on a computer system?	• Lists • Linked lists • Stacks and Queues • Trees • Graphs	How understanding is assessedes : • Set exercises throughout unit Skills • Ability to analyse a situation and propose storage solution • Technical ability to structure data storage Assessment point information Exercises, together with BM data, feed into an AP.
	Algorithms	2.2 / 2.3 Standard Algorithms	• Sorting – including quick sort • Searching • Big O concepts	How understanding is assessed : • Written test Skills • Ability to demonstrate understanding of algorithms Assessment point information • Test feeds into AP

	Databases	How are Databases structured?	• Table-based systems • Normalisation and table structure • Advantages of Databases • SQL	How understanding is assessed : • In-lesson BM data, based on a series of challenging exercises • Homework task Skills • Ability to create a database structure from a given situation Assessment point information • The grades for the homework will feed into an AP.
	Advanced Methods	Sorting, searching and Traversals	• Methods for complex data structures including • Dijkstra • A*	How understanding is assessed : Homework exercises Skills Ability to write pseudocode for these Assessment point information Marks feed into an AP

	Small Topics	ACID Pagerank and Search Engines (Other small topics)	AL Extensions to a number of AS topics	How understanding is assessed : Written exercises Assessment point information Test feeds into the Assessment point, together with BM data.
	OOP with recursion	How can recursion be used with OOP	Comparison with procedural programming	How understanding is assessed : Written test Assessment point information Test feeds into the Assessment point, together with BM data.
Spring Term	Project	Can I run the full SA Cycle and write a program for someone else?	- Analysis - Design - Implementation - Testing - Documentation - Evaluation	How understanding is assessedesd : - Via the Board's MS Skills - Programming - Project Management Assessment point information Progress BM data is fed into an AP

Spring/Summer Term	Final Revision	What don't I know? How do I get the marks?	All Theory Topics	How understanding is assessed : - Weekly homeworks Skills - Various Assessment point information Weekly marks feed into an AP
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