ST. MARY'S COLLEGE
FORM L6
SUBJECT- COMPUTER SCIENCE
Course Outline
Term 1

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1	**Computer Architecture and Organisation**	Introduction to Computer Hardware	:01 - What is a computer :02 - The CPU :03 - Input devices :04 - Output devices
Wk 2		Types of Memory	:01 - RAM :02 - ROM :03 - Hybrids
Wk 2		Features of Memory	:01 - Speed :02 - Size :03 - Volatility
Wk 3		Ports	:01 - Serial :02 - Parallel :03 - USB :04 - Firewire :05 - DIN :06 - PS/2 :07 - VGA :05 - Power :06 - Modem :07 - Ethernet
Wk 3		Computer Architecture	:01 - CISC :02 - RISC :03 - Addressing (Immediate, Direct & Indirect) :04 - Fixed Length vs Variable Length Instructions
Wk 3		Types of Computers	:01 - Micro Computer :02 - Mini Computer :03 - Mainframe :04 - Super Computer :05 - PDA :06 - Laptop :07 - Netbook
Wk 4		Filp Flops-Registers	:01 - What is a Flip Flop :02 - Types of Registers :03 - Cache

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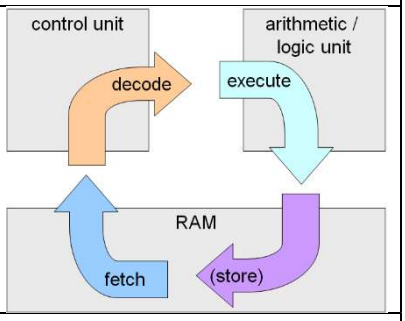
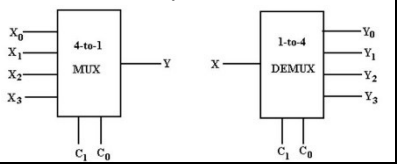
Wk 4		The Fetch Decode Execute Cycle	
Wk 5	**Programming**	Algorithms	:01 - Pseudo Code :02 - Flowcharts
Wk 5-6		Introduction to C Programming	:01 - Declaring Variables :02 - Input Output :03 - Decision Structures :04 - Loops :05 - Functions :06 - Logical Operators and Switch :07 - Arrays :08 - Files
Wk 7	**Computer Architecture and Organisation**	Truth Tables/Logic Gates	:01 - AND :02 - OR :03 - NOT :04 - NAND :05 - XOR :06 - Implication :07 - Equivalence :08 - Addition (half and full adder)
Wk 7		Multiplexors	:01 - Mux :02 - DeMux :03 - 4-1 mux/demux 

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 8		Number Bases	:01 - Representation of Data (Bit, byte, ASCII, EBCDIC) :02 - Decimal to Binary :03 - Binary to Decimal :04 - Octal to Binary :05 - Binary to Octal :06 - Hex to Binary :07 - Binary to Hex :08 - BCD :09 - Sign and Magnitude :10 - 1's complement :11 - 2's complement :12 - Fixed point representation :13 - Floating point representation
Wk 9	**Problem Solving with Computers**	Problem Solving	:01 - Steps in Program Development
Wk 9		Generations of Programming Languages	:01 - 1GL :02 - 2GL :03 - 3GL :04 - 4GL :05 - 5GL
Wk 9		Compilers & Interpreters	:01 - Source code :02 - Object code :03 - What is a compiler :04 - What is an interpreter :05 - Stages of compilation :06 - Pre-processor :07 - Linker
Wk 10		Procedural Paradigms	:01 - Structured Design :02 - Imperative Languages :03 - Declarative Languages :04 - Functional Languages :05 - Object Oriented Languages :06 - Visual Languages :07 - Special Purpose Languages
Wk 10		Program Development Aides	:01 - Editors :02 - Debuggers :03 - Libraries :04 - Packages :05 - Component Assembly
Wk 11-12	First Draft of Internal Assessment Due		

Term 2

Internal Assessment Work

Revision and Past Papers

Final Internal Assessment Due – Carnival Friday

Term 3

CAPE EXAMINATIONS