



Curriculum Map For ICT Year 12

YEAR 12	Autumn 1	Autumn 2
Topics	<p align="center">Unit 1 Information Technology System</p> <p align="center">Learning Aim A:</p> <p align="center">Digital Devices in IT Systems</p> <p align="center">Learning Aim B: Transmitting Data</p> <p align="center">Learning Aim C: Issues Relating to Transmission of Data</p>	<p align="center">Unit 1 Information Technology System</p> <p align="center">Learning Aim D: Operating Online</p> <p align="center">Learning Aim E: Protecting Data and Information</p> <p align="center">Learning Aim F: Impact of IT Systems</p> <p align="center">Learning Aim G: Issues</p>
Substantive Knowledge – The Knowledge Taught By The Teacher	<p>Students will learn about:</p> <ul style="list-style-type: none"> Digital Devices - Their Functions and Use Peripheral Devices and Media Computer Software in an IT System Emerging Technologies Choosing IT Systems Connectivity Networks Issues Relating to Transmission of Data Online Systems Online Communities 	<p>Students will learn about:</p> <ul style="list-style-type: none"> Threats to Data - Information and Systems Protecting Data Online Services Impact on Organisations Using and Manipulating Data Moral and Ethical Issues Legal Issues
Disciplinary Knowledge – How The Knowledge Will Be Applied	<ul style="list-style-type: none"> Students will demonstrate knowledge and understanding of information technology terms, standards, concepts and processes. Students will apply knowledge and understanding of information technology terms, standards, concepts and processes. Students will select and use information technologies and procedures to explore likely outcomes and find solutions to problems in context. 	<ul style="list-style-type: none"> Students will analyse and evaluate information, technologies, and procedures in order to recommend and justify solutions to IT problems. Students will make connections between the application of technologies, procedures, outcomes and solutions to resolve IT problems.
Skills	<ul style="list-style-type: none"> Effective writing skills. Analytical skills. Creative assessment. Cognitive and problem-solving skills. Interpersonal skills. Researching organisations and their existing technology. 	<ul style="list-style-type: none"> Effective writing skills. Analytical skills. Creative assessment. Cognitive and problem-solving skills. Interpersonal skills. Researching organisations and their existing technology.

Links To Prior Learning	<ul style="list-style-type: none"> Students will need an existing understanding of real technologies for examples. Students will have prior understanding the existing technology and comparing the new technology with an older technology from the Years 10 and 11 course. 	<ul style="list-style-type: none"> Students will need an existing understanding of real technologies for examples. Students will have prior understanding the existing technology and comparing the new technology with an older technology from the Years 10 and 11 course.
Literacy/ Numeracy	<ul style="list-style-type: none"> Analysing and researching. Creating reports. Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. Evaluating forms. Accuracy of sourced information. 	<ul style="list-style-type: none"> Analysing and researching. Creating reports. Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. Evaluating forms. Accuracy of sourced information.
Cross Curricular	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical and moral issues with technology. Knowing the appropriate use of computing and understanding Netiquette. Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or using Excel for mathematical or scientific functions. 	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical and moral issues with technology. Knowing the appropriate use of computing and understanding Netiquette. Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or using Excel for mathematical or scientific functions.
Assessment	<ul style="list-style-type: none"> End of Learning Aim Tests 	<ul style="list-style-type: none"> End of Learning Aim Tests Externally Assessed Unit 1 Exam

YEAR 12	Spring 1	Spring 2
Topics	<p>Unit 2: Creating Information Systems/Database System For A Live Scenario</p> <p>Learning Aim A: The Purpose and Structure of Relational Database Management Systems.</p>	<p>Unit 2: Creating Information Systems/Database System For A Live Scenario</p> <p>Learning Aim B: Standard Methods and Techniques to Design Relational Database Solutions.</p>
Substantive Knowledge – The Knowledge Taught By The Teacher	<p>Students will learn about:</p> <ul style="list-style-type: none"> Relational Database Management Systems Manipulating Data Structures and Data in Relational Databases Normalisation Relational Database Design Design Documentation 	<p>Students will learn how to:</p> <ul style="list-style-type: none"> Produce a Database Solution Test and Refine the Database Solution Evaluate Database Design Evaluate Database Testing Evaluate a Database
Disciplinary Knowledge – How The	<ul style="list-style-type: none"> Students will demonstrate knowledge of database development terminology, standards, concepts and processes. 	<ul style="list-style-type: none"> Students will evaluate evidence to make informed judgements about the

Knowledge Will Be Applied	<ul style="list-style-type: none"> • Students will apply knowledge and understanding of database development terminology, standards, concepts and processes to create a software product to meet a client brief. • Students will analyse information about database problems and data from test results to optimise the performance of a database solution. 	<p>success of a database's design and performance.</p> <ul style="list-style-type: none"> • Students will be able to develop a database solution to meet a client brief with appropriate justification.
Skills	<ul style="list-style-type: none"> • Effective writing skills. • Analytical skills. • Creative assessment. • Cognitive and problem-solving skills. • Interpersonal skills. • Researching organisations and their existing technology. • Use of models to accurately represent data. 	<ul style="list-style-type: none"> • Effective writing skills. • Analytical skills. • Creative assessment. • Cognitive and problem-solving skills. • Interpersonal skills. • Researching organisations and their existing technology. • Use of models to accurately represent data.
Links To Prior Learning	<ul style="list-style-type: none"> • Knowledge of Unit 1 	<ul style="list-style-type: none"> • Knowledge of Unit 1
Literacy/ Numeracy	<ul style="list-style-type: none"> • Analysing and researching. • Creating reports. • Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. • Evaluating forms. • Accuracy of sourced information. • Representation and interpretation of data. 	<ul style="list-style-type: none"> • Analysing and researching. • Creating reports. • Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. • Evaluating forms. • Accuracy of sourced information. • Representation and interpretation of data.
Cross Curricular	<ul style="list-style-type: none"> • The knowledge of the effect of technology on people lives. • Awareness of the legal, ethical and moral issues with technology. • Knowing the appropriate use of computing and understanding Netiquette. • Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or using Excel for mathematical or scientific functions. 	<ul style="list-style-type: none"> • The knowledge of the effect of technology on people lives. • Awareness of the legal, ethical and moral issues with technology. • Knowing the appropriate use of computing and understanding Netiquette. • Cross Curricular: Use of Information Technology across subjects, e.g., creating presentations in PowerPoint or using Excel for mathematical or scientific functions.
Assessment	<ul style="list-style-type: none"> • Ongoing Questioning • Lesson/Topic Recaps • Mock Exam Base on a Past Scenario 	<ul style="list-style-type: none"> • Ongoing Questioning • Lesson/Topic Recaps • Mock Exam Base on a Past Scenario

YEAR 12	Summer 1	Summer 2
Topics	<p align="center">Unit 2</p> <p align="center">Learning Aim C: Creating a Relation Database Structure</p>	<p align="center">Unit 2 & Revision Via A Mock Controlled Assessment</p> <p align="center">Learning Aim D: Evaluating a Database Development Project</p>
Substantive Knowledge – The Knowledge Taught By The Teacher	<p>Students will be supported in:</p> <ul style="list-style-type: none"> Producing a Database Solution Testing and Refining The Database Solution 	<p>Students will be supported in:</p> <ul style="list-style-type: none"> Database Design Evaluation Evaluation of Database Testing Evaluation of the Database
Disciplinary Knowledge – How The Knowledge Will Be Applied	<ul style="list-style-type: none"> Students will select and configure appropriate RDBMS and SQL tools to produce a database solution to meet client's requirements. Students will be able to describe different types of testing, select and use appropriate test data. Students will record appropriate test documentation and use testing outcomes to improve and refine a database solution. 	<ul style="list-style-type: none"> Students will evaluate and monitor the characteristics, concepts, impact and implications of testing methodologies of a database design. Students will be able to evaluate the testing processes and understand the success of the solution.
Skills	<ul style="list-style-type: none"> Effective writing skills. Analytical skills. Creative assessment. Cognitive and problem-solving skills. Interpersonal skills. Researching organisations and their existing technology. Use of models to accurately represent data. 	<ul style="list-style-type: none"> Effective writing skills. Analytical skills. Creative assessment. Cognitive and problem-solving skills. Interpersonal skills. Researching organisations and their existing technology. Use of models to accurately represent data.
Links To Prior Learning	<ul style="list-style-type: none"> Knowledge of Unit 1. 	<ul style="list-style-type: none"> Knowledge of Unit 1.
Literacy/ Numeracy	<ul style="list-style-type: none"> Analysing and researching. Creating reports. Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. Evaluating forms. Accuracy of sourced information. Representation and interpretation of data. 	<ul style="list-style-type: none"> Analysing and researching. Creating reports. Evaluating a scenario for additional technology will help to develop literacy and numeracy skills. Evaluating forms. Accuracy of sourced information. Representation and interpretation of data.
Cross Curricular	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical and moral issues with technology. 	<ul style="list-style-type: none"> The knowledge of the effect of technology on people lives. Awareness of the legal, ethical and moral issues with technology.

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Assessment	<ul style="list-style-type: none"> • Mock Controlled Assessment - 10 Hours Allocated Time in ICT Lessons 	<ul style="list-style-type: none"> • Mock Controlled Assessment - 10 Hours Allocated Time in ICT Lessons