



Curriculum Map for Information Technology in a Global Society (Group 3) DP1

Unit Title (Time frame)	Standards	IB Objectives	Knowledge/Content	Skills	Assessments	Key resources
Introduction to ITGS (1 week)	Students will understand the effects of technology development and use on social, ethical, and human issues. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.	Demonstrate an awareness of the social and ethical significance of specified IT applications and developments AO1 Analyse the social and ethical significance of specified IT applications and developments AO2	ITGS Aims ITGS Triangle Course Overview Social & Ethical considerations: <ul style="list-style-type: none"> Reliability Integrity Security Privacy and anonymity Intellectual property Authenticity The digital divide and equality of access Surveillance Globalization and cultural diversity Policies Standards and protocols People and machines Digital citizenship 	<ul style="list-style-type: none"> Understanding the core ITGS course Identifying social issues Applying ethical understanding Determining course requirements Analyzing ITGS processes 	Formative Social and Ethical Issues discussion and debate (includes Stakeholder Analysis)	Information Technology in a global society IB subject guide Ethical Dilemma Bank PowerPoint. Textbook: Discovering Computers, Complete International edition, Shelly, Vermatt ISBN 978111530645 Chapters 1 & 11 http://itgsopedia.wikispaces.com/
Introduction to Higher level (1 week)	Students will: gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools Investigate and apply expert systems, intelligent agents and simulations to real-world situations.	Demonstrate knowledge and understanding of topics related to the annually issued case study Demonstrate an awareness of the social and ethical significance of specified IT applications and developments AO1 Analyse the social and ethical significance of specified IT applications and developments AO2	HL Extension topics <ul style="list-style-type: none"> IT systems in organizations Robotics, AI & Expert Systems Case study 	<ul style="list-style-type: none"> Understanding the HL course Identifying issues Applying ethical understanding Determining course requirements Analyzing scenarios to understand the information presented 	Formative Case Study discussion exercises	ITGS IB guide
IT systems Hardware and Software (1 week)	Students will understand basic technology operations and concepts.	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments Demonstrate technical knowledge of ITGS terminology, concepts and tools Demonstrate technical knowledge of IT systems AO1	Computer systems Input & output devices Operating systems Applications Utilities	<ul style="list-style-type: none"> Comparing Operating Systems Identifying hardware components, platforms, software features Understanding role of utilities Classifying applications 	Summative Operating Systems Comparison	Model ITSys – HW&SW PPT Chapters 5-8
Robotic, AI and Expert Systems (1 week)	Investigate and apply expert systems, intelligent agents and simulations to real-world situations.	Demonstrate technical knowledge of IT systems AO1	Robot anatomy	<ul style="list-style-type: none"> Understanding the elements of a robot 	Formative Class blog	Robotic engineering website Robotic videos from YouTube



Unit Title (Time frame)	Standards	IB Objectives	Knowledge/Content	Skills	Assessments	Key resources
IT systems Networks (2 weeks)	Students will understand basic technology operations and concepts.	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments Demonstrate technical knowledge of ITGS terminology, concepts and tools Demonstrate technical knowledge of IT systems AO1	Network: Technologies Functionality Administration	<ul style="list-style-type: none"> Researching networks Determining function of all parts of a network Discovering the control factors of a network 	Formative Summative Network Design Scenario	Model devices ITSys – Networks PPT Chapter 9
Robotic, AI and Expert Systems (1 week)	Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity	Analyse the social and ethical significance of specified IT applications and developments AO2	Analysis of Robotics Social/Ethical Issues	<ul style="list-style-type: none"> Analyzing the effect of robotics in everyday life Discovering how simulations work 	Formative Social And Ethical Implications of Robots – Case Study and decision making	Robotic engineering website Robotic videos from YouTube
Robotic, AI and Expert Systems (1 week)		Demonstrate technical knowledge of IT systems AO1	Expert System Design Knowledge Base Inference Engine Programmable Logic Control	<ul style="list-style-type: none"> Understanding the elements of expert systems and how they function 	Formative: quiz and worksheet	Robotic engineering website Robotic videos from YouTube
IT systems Internet (3 weeks)	Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments Demonstrate technical knowledge of ITGS terminology, concepts and tools Demonstrate technical knowledge of IT systems AO1	Internet: Fundamentals Tools Services Threats & security Practical techniques	<ul style="list-style-type: none"> Efficiently surfing the web to find what is required Creating websites using drag&drop online software Designing website from scratch Practicing skills previously gained 	Summative Viruses and Biometrics Task	ITSys – Internet PPT Chapter 2
Expert Systems (1 week)	Investigate and apply expert systems, intelligent agents and simulations to real-world situations. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity	Explain the impacts of IT applications and developments in specified scenarios AO2	Expert System Management	<ul style="list-style-type: none"> Planning and Writing answers Developing arguments and opinions 	Formative: essay- “Who are the real experts”	Robotic engineering website Robotic videos from YouTube
Artificial Intelligence (2 week)		Explain the impacts of IT applications and developments in specified scenarios AO2	AI Development	<ul style="list-style-type: none"> Discovering the functioning of an AI 	Summative Expert Systems in Action, Analysis Task	Robotic engineering website Robotic videos from YouTube
IT systems Personal and Public Communications (2 weeks)	Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments	Technologies Services	<ul style="list-style-type: none"> Creating a website Understanding the place of digital technologies in society Experiencing portable and non-portable devices and 	Summative PAN Development Task Web 2.0 Task (both in groups)	ITSys – Personal & Public communication PPT Chapter 9



		Demonstrate technical knowledge of ITGS terminology, concepts and tools Demonstrate technical knowledge of IT systems AO1		synchronizing of information		
Artificial Intelligence (1 week)	<i>Investigate and apply expert systems, intelligent agents and simulations to real-world situations</i>	<i>Demonstrate an awareness of IT applications and developments in specified scenarios</i> <i>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</i> <i>Demonstrate technical knowledge of ITGS terminology, concepts and tools</i> <i>Demonstrate technical knowledge of IT systems</i>	AI Techniques	<ul style="list-style-type: none"> Understanding the technique of: Searching, pattern recognizing, heuristics and machine learning 	Summative Expert Systems in Action, Analysis Task	Robotic engineering website Robotic videos from YouTube
Unit Title (Time frame)	Standards	IB Objectives	Knowledge/Content	Skills	Assessments	Key resources
Artificial Intelligence (1 week)	<i>Investigate and apply expert systems, intelligent agents and simulations to real-world situations</i>	<i>Demonstrate an awareness of IT applications and developments in specified scenarios</i> <i>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</i> <i>Demonstrate technical knowledge of ITGS terminology, concepts and tools</i> <i>Demonstrate technical knowledge of IT systems</i> AO1	AI Capabilities, Limitations Fuzzy Logic	<ul style="list-style-type: none"> Understanding technical terms and how things work Discovering AI capabilities and drawbacks including problems with implementation 	Formative: quiz, worksheet	Robotic engineering website Robotic videos from YouTube
<ul style="list-style-type: none"> Mid Semester Break – Research Task 						
IT systems Introduction to Multimedia (2 weeks)	Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments Demonstrate technical knowledge of ITGS terminology, concepts and tools Demonstrate technical knowledge of IT systems AO1	Theoretical concepts Data collection Product development Components: Text; Graphics; Audio; Video Integrating components	<ul style="list-style-type: none"> Conceptualizing multimedia, broadcasting and publishing Creating multimedia elements Using features of multimedia Classifying media 	Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding Summative: How IT is used in Society Multimedia Task	ITSys – Multimedia PPT Chapter 3
Artificial Intelligence (1 week)	<i>Investigate and apply expert systems, intelligent agents and simulations to real-world situations</i>	<i>Demonstrate an awareness of IT applications and developments in specified scenarios</i> <i>Demonstrate an awareness of the social and</i>	AI Languages and Neural Networks	<ul style="list-style-type: none"> Comparing AI to the human brain 	Summative Social and Ethical implications of the use of AI in three scenarios	Robotic engineering website Robotic videos from YouTube



		<p><i>ethical significance of specified IT applications and developments</i></p> <p><i>Demonstrate technical knowledge of ITGS terminology, concepts and tools</i></p> <p><i>Demonstrate technical knowledge of IT systems</i></p> <p><u>AO1</u></p>				
<p>Artificial Intelligence (1 week)</p>	<p><i>Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools</i></p>	<p><i>Demonstrate an awareness of IT applications and developments in specified scenarios</i></p> <p><i>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</i></p> <p><i>Demonstrate technical knowledge of ITGS terminology, concepts and tools</i></p> <p><i>Demonstrate technical knowledge of IT systems</i></p> <p><u>AO1</u></p>	<p>Pattern Recognition and Storage</p>	<ul style="list-style-type: none"> • Discovering the use of pattern recognition In our modern society 	<p>Formative: class quiz</p>	<p>Robotic engineering website</p> <p>Robotic videos from YouTube</p>
<p>IT systems: Modelling Introduction to Spreadsheets (3 weeks)</p>	<p>Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools</p>	<p>Demonstrate an awareness of IT applications and developments in specified scenarios</p> <p>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</p> <p>Demonstrate technical knowledge of ITGS terminology, concepts and tools</p> <p>Demonstrate technical knowledge of IT systems</p> <p><u>AO1</u></p>	<p>Spreadsheet: Theoretical and practical concepts</p> <p>Modelling</p> <p>Simulation: Technologies</p> <p>Considerations</p> <p>Developing and using models</p> <ol style="list-style-type: none"> 1. Intro to models and spreadsheet program: applications of everyday models and excel software 2. Create markbook to demonstrate features and functions of application: worksheet, cells, formulae, functions, formatting, cell format 3. Create an Airline efficiency model to demonstrate Advanced features: charting, sort, filter, find & replace, conditional formatting, pivot table, data validation, macros. 4. Visualisation: Create a missile trajectory. Modelling: what-if-analysis; scenario, seek goal 5. Create climate model 6. Prepare A3 poster using 727 marketplaces to present topics: Why 	<ul style="list-style-type: none"> • Setting up tables, charts, reports, forms • Importing and exporting data • Creating & running formulas and functions • Validating and verifying data • Testing "what-if" scenarios • Recording macros • Sorting, filtering and formatting data 	<p>Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative: Modelling Development Task</p>	<p>Models</p> <p>ITSys – Spreadsheet PPT Chapter 3</p>



			<p>model? Problems with models, variables, simplification; High performance computers; Computer simulations: advantages and disadvantages</p> <p>7. Model the 727 strategy using MMORPG as the topic</p> <p>8. Discuss verification and validation of data using a powerpoint presentation</p> <p>9. Demonstration of traffic simulator</p> <p>10. Research Virtual and Augmented reality (view commoncraft.com and how stuff works)</p> <p>11. Create a 5 slide presentation to explain: 2D graphics; 3D graphics; 3D printing and 3D scanner</p>			
Robotic, AI and Expert Systems (3 weeks)	Investigate and apply expert systems, intelligent agents and simulations to real-world situations	<p>Demonstrate an awareness of IT applications and developments in specified scenarios</p> <p>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</p> <p>Demonstrate technical knowledge of ITGS terminology, concepts and tools</p> <p>Demonstrate technical knowledge of IT systems</p> <p>AO1</p>	Applications	<ul style="list-style-type: none"> • Discovering where AI, robots and expert systems are used. • Classifying automated devices • Evaluating issues raised in robotic study 	Summative Portfolio/Research into applications, scenarios and social/ethical issues	Robotic engineering website Robotic videos from YouTube
IT systems Databases (4 weeks)	Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools	<p>Demonstrate an awareness of IT applications and developments in specified scenarios</p> <p>Demonstrate an awareness of the social and ethical significance of specified IT applications and developments</p> <p>Demonstrate technical knowledge of ITGS terminology, concepts and tools</p> <p>Demonstrate technical knowledge of IT systems</p> <p>AO1</p>	<p>Database: Organization</p> <p>Function</p> <p>Storage & access methods</p> <p>Practical techniques</p>	<ul style="list-style-type: none"> • Setting up tables, forms, queries, fields, reports • Importing and exporting data • Creating relationships • Validating and verifying data 	<p>Formative:</p> <p>Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative:</p> <p>Practice database</p>	<p>Model</p> <p>ITSys – Database PPT</p> <p>Chapter 10</p>
Robotic, AI and Expert Systems (4 weeks)	Investigate and apply expert systems, intelligent agents and simulations to real-world situations	<p>Explain the impacts of IT applications and developments in specified scenarios</p> <p>Analyse the social and ethical significance of specified IT applications and developments</p> <p>Transfer IT knowledge and make connections between specific scenarios</p> <p>Apply technical knowledge of IT systems</p>	Past Papers	<ul style="list-style-type: none"> • Analyzing questions • Researching answers • Answering previous exam papers 	Formative Past Papers	Robotic engineering website Robotic videos from YouTube



		<i>acquired through independent research to provide supporting AO2</i>				
Christmas Vacation – Research Task						
Revision (1 week)						
End of Semester Examinations (1 week)						
Semester 2						
Scenarios Business and Employment (6 weeks)	Students will understand basic technology operations and concepts.	Explain the impacts of IT applications and developments in specified scenarios Analyse the social and ethical significance of specified IT applications and developments Transfer IT knowledge and make connections between specific scenarios Apply technical knowledge of IT systems acquired through independent research to provide supporting AO2	Traditional Business Online Business Transportation	<ul style="list-style-type: none"> Presenting information Laying out portfolio Problem solving what to include and display in the portfolio 	Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding Summative Storyboard Portfolio (ongoing throughout the course)	
IT systems in organizations (6 weeks)	Students will understand basic technology operations and concepts.	Demonstrate technical knowledge of IT systems AO1	Information systems, people & teams			Chapters 12&14
Scenarios Home & Leisure (5 weeks)	Students will understand basic technology operations and concepts.	Explain the impacts of IT applications and developments in specified scenarios Analyse the social and ethical significance of specified IT applications and developments Transfer IT knowledge and make connections between specific scenarios Apply technical knowledge of IT systems acquired through independent research to provide supporting AO2	Home networks Digital entertainment Social networking Published and broadcast information Digital policing Hardware, software and networks	<ul style="list-style-type: none"> Video taping Vodcasting Analyzing digital policing Publishing and broadcasting vodcasting 	Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding Summative: Create VideoCast of setting up a home network	
Systems Development Life Cycle (6 weeks)	Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Make informed choices among technology systems, resources, and services	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments AO1	Product System development life cycle Practical techniques	<ul style="list-style-type: none"> Creating slides using multimedia software Brainstorming design ideas Slide editing, formatting, and inserting transitions & animations Understanding the technical terms Presenting ideas to entire group 	Formative Create a Collaborative powerpoint on SDLC	Chapter 12
Unit Title (Time frame)	Standards	IB Objectives	Knowledge / Content	Skills	Assessments	Key resources
Project management Issues (6 weeks)	Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal,	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and	Development methodologies Modelling systems Support systems	<ul style="list-style-type: none"> Defining system development phases Describing modelling and support systems Analyzing system development issues 	Summative System development at AIC case study	



	lifelong learning, and workplace needs. Make informed choices among technology systems, resources, and services	ethical significance of specified IT applications and developments <u>AO1</u>		<i>especially in an education institution</i>		
Introduction to Project Management and Internal Assessment (1 week)	Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Make informed choices among technology systems, resources, and services	Demonstrate an awareness of IT applications and developments in specified scenarios Demonstrate an awareness of the social and ethical significance of specified IT applications and developments AO1	Project Proposal	<ul style="list-style-type: none"> Proposal writing Creating website using drag&drop software 	Formative Project Proposal Summative Practice website	
Unit Title (Time frame)	Standards	IB Objectives	Knowledge/ Content	Skills	Assessments	Key resources
Project Criterion A: Initial investigation and initial consultation with client (1 week)	Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Make informed choices among technology systems, resources, and services.	Assessment objective 4: Use of ITGS skills Demonstrate evidence of project management in the development of a well-organized product to resolve a specific issue Use IT tools and the product development life cycle (PDLC) to create an original product in consultation with a client Demonstrate evidence of the use of appropriate techniques to develop an original IT product	Criterion A: <ul style="list-style-type: none"> Identification of client & Information problem 	<ul style="list-style-type: none"> Evaluating the current situation Listening actively to the client to discover the brief 	Formative: Daily presentation to group of aspects of selected works Summative: Submission for semester 2 grade IA component	ITGS IB guide. OCC forms for Internal Assessment. Project checklist Project PPT. IBO Model submissions. Past students work.
Project Criterion B: Analysis (2 weeks)			Criterion B: <ul style="list-style-type: none"> Analysis form Required Specifications Justification & proposed solutions 	<ul style="list-style-type: none"> Problem solving to satisfy the client brief Brainstorming solutions Determining specifications 		
Project Criterion C: Project schedule (1 week)			Criterion C: <ul style="list-style-type: none"> Schedule form Key events Issues 	<ul style="list-style-type: none"> Planning project's sequence Problem solving issues confronted 		
Summer Vacation – Research Task – Project Design investigation						



Curriculum Map for Information Technology in a Global Society (Group 3) DP2

Unit Title (Time frame)	Standards	IB Objectives	Knowledge / Content	Skills	Assessments	Key resources
Project Criterion D: Product design (1 week)	<p>Students will gather, analyze, interpret, synthesize, apply, and communicate information and designs using technology tools</p> <p>Use technology tools and resources for managing and communicating personal/professional information. Evaluate technology - based options, including distance and distributed education for lifelong learning. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity. Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning. Investigate and apply expert systems, intelligent agents and simulations to real-world situations. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models, and other creative works</p>	<p>Assessment objective 4: Use of ITGS skills</p> <ul style="list-style-type: none"> • Demonstrate evidence of project management in the development of a well-organized product to resolve a specific issue • Use IT tools and the product development life cycle (PDLC) to create an original product in consultation with a client • Demonstrate evidence of the use of appropriate techniques to develop an original IT product 	<p>Criterion D:</p> <ul style="list-style-type: none"> • Design form • Methodologies • Draft design • Resources • Functionality • Client agreement 	<ul style="list-style-type: none"> • Designing a functioning product • Negotiating with the client • Using resources 	<p>Formative: Daily presentation to group of aspects of selected completed stages of project</p> <p>Summative: Submission for semester 1 grade IA component</p>	<p>ITGS IB guide. OCC forms for Internal Assessment. Project checklist Project PPT. IBO Model submissions. Past students work. http://itgsopedia.wikispaces.com/</p>
Project Criterion E: Product development (2 weeks)			<p>Criterion E:</p> <ul style="list-style-type: none"> • Create using: Specifications used in Criterion B, Schedule (C) Design (D) 	<ul style="list-style-type: none"> • Creating a functioning product from the design • Using specifications • Working to a schedule 		
Project Criterion F: Product Evaluation and future development (1 week)			<p>Criterion F:</p> <ul style="list-style-type: none"> • Client feedback • Future recommendations 	<ul style="list-style-type: none"> • Evaluating product • Active listening to client and questioning of client • Innovating the product 		
Project Criterion G: Required elements (1 week)			<p>Criterion G:</p> <ul style="list-style-type: none"> • Product content & functionality • Linked cover page • Folder structure & file naming. 	<ul style="list-style-type: none"> • Form filling • Problem solving and organizing of information 		



Unit Title (Time frame)	Standards	IB Objectives	Knowledge / Content	Skills	Assessments	Key resources
Introduction to Case Study (24 weeks)	Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Make informed choices among technology systems, resources, and services.	Through their investigation of the case study, students should be able to: <ul style="list-style-type: none"> • demonstrate an understanding of the IT concepts fundamental to the IT system(s) in the case study (assessment objective 1) • demonstrate an understanding of how the IT system(s) in the case study work (assessment objective 1) • analyse the social impacts and ethical issues relevant to the case study (assessment objective 2) • explain how scenarios specified in the case study may be related to other similar local and global scenarios (assessment objective 2) • explain technical issues relating to the case study (assessment objective 2) • use and quote, where appropriate, information that may be gathered from local and global sources including field trips, interviews, primary and secondary research, invited guest speakers and online interviews, as a basis for the strategic developments linked to the case study (assessment objective 3) • evaluate, formulate or justify strategic solutions based on the synthesis of information from the case study itself, additional research and new stimulus material provided in the examination paper (assessment objective 3). 	HL CASE STUDY ITGS issues and/or concepts. <ul style="list-style-type: none"> • ITGS terminology. • conclusions, judgments or future strategies • Explicit references to the information in the case study and independent research 	<ul style="list-style-type: none"> • Analyzing case study • Defining and describing terms used • Researching scenarios • Questioning experts • Evaluating resources 	<p>Formative</p> <p>Case Study discussion exercises</p> <p>Summative</p> <p>Produce a report containing recommendations to satisfy the issues identified and/or raised in the annual case study</p> <p>Paper 3 component of semester 1 grade (open book) and Mock grade</p>	<p>ITGS IB guide & Case study scenario booklet.</p> <p>Visit to trade fair, visit to local industry, Guest speakers</p> <p>Online interviews as appropriate.</p> <p>Internet and You tube for secondary research of how things work.</p>



Unit Title (Time frame)	Standards	IB Objectives	Knowledge / Content	Skills	Assessments	Key resources
Scenarios Education and Training (5 weeks)	<p>1. Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.</p> <p>2. Evaluate technology-based options, including distance and distributed education for lifelong learning. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.</p> <p>3. Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning.</p>	<p>Assessment objective 1: Knowledge and understanding of specified content</p> <ul style="list-style-type: none"> • Demonstrate an awareness of IT applications and developments in specified scenarios • Demonstrate an awareness of the social and ethical significance of specified IT applications and developments • Demonstrate technical knowledge of ITGS terminology, concepts and tools • Demonstrate technical knowledge of IT systems <p>Assessment objective 2: Application and analysis</p> <ul style="list-style-type: none"> • Explain the impacts of IT applications and developments in specified scenarios • Analyze the social and ethical significance of specified IT applications and developments • Transfer IT knowledge and make connections between specific scenarios 	<ul style="list-style-type: none"> • Distance learning • IT in teaching & learning (hardware, software and networks) • Special needs provision • School administration 	<ul style="list-style-type: none"> • Analyzing scenarios • Comparing traditional and 21st century aspects • Understanding impact of modern educational practice • Brainstorming solutions • Podcasting • Questioning experts • Problem solving to figure out how best to present mathematical concept/s or principles • Using technology to create solutions to the challenges presented 	<p>Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative: Produce a podcast on chosen topic as outlined in the scenario Create a multimedia e-learning module in a study of mathematics</p>	<p>How stuff works.com/ podcasts. Steps in making a podcast video. Models of commercial online teaching products. Education PPT.</p>
Scenarios Health (4 weeks)	<p>1. Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.</p>	<p>Assessment objective 1: Knowledge and understanding of specified content</p> <ul style="list-style-type: none"> • Demonstrate an awareness of IT applications and developments in specified scenarios • Demonstrate an awareness of the social and ethical significance of specified IT applications and developments • Demonstrate technical knowledge of ITGS terminology, 	<ul style="list-style-type: none"> • Diagnostic and therapeutic tools • Medical: information administration • marketing and sales • research • Internet addiction • Ergonomics • Repetitive strain injuries (RSI) 	<ul style="list-style-type: none"> • Researching innovations of online diagnosis; robotic surgery; e-health records; medical research; IT interface device design; problems caused by over use of IT. • Creating a wiki 	<p>Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative: Create a Health wiki</p>	<p>How stuff works.com/ wikis. Steps in making a wiki video. Infomercials of online health products. Health PPT.</p>



	<p>2.Evaluate technology-based options, including distance and distributed education for lifelong learning. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.</p> <p>3.Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning.</p>	<p>concepts and tools</p> <ul style="list-style-type: none"> • Demonstrate technical knowledge of IT systems <p>Assessment objective 2:</p> <p>Application and analysis</p> <ul style="list-style-type: none"> • Explain the impacts of IT applications and developments in specified scenarios • Analyze the social and ethical significance of specified IT applications and developments • Transfer IT knowledge and make connections between specific scenarios 				
<p>Scenarios Environment (5 weeks)</p>	<p>1.Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.</p> <p>2.Evaluate technology-based options, including distance and distributed education for lifelong learning. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.</p> <p>3.Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning.</p>	<p>Assessment objective 1:</p> <p>Knowledge and understanding of specified content</p> <ul style="list-style-type: none"> • Demonstrate an awareness of IT applications and developments in specified scenarios • Demonstrate an awareness of the social and ethical significance of specified IT applications and developments <p>Assessment objective 2:</p> <p>Application and analysis</p> <ul style="list-style-type: none"> • Explain the impacts of IT applications and developments in specified scenarios • Analyze the social and ethical significance of specified IT applications and developments • Transfer IT knowledge and make connections between specific scenarios 	<ul style="list-style-type: none"> • Modelling & simulations • Data logging • Satellite communications • Mapping • E-waste • Resource depletion 	<ul style="list-style-type: none"> • Creating an environment study guide. • Explaining e-waste and resource depletion issues. • Collaborating to create a useful guide. 	<p>Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative: In groups of 3 or 4 students, Produce a Study guide – design and create a document in a chosen format (blog, presentation, video etc.) to be used for revision of the Environment scenario that includes: Surveys, field work, issues and solutions to the questions raised in this unit.</p>	<p>Environment PPT. Youtube environment innovations</p> <ul style="list-style-type: none"> • WWF.com • Greenpeace.com • PlanetArk.com • World.org • EPA/recycle city • EPA/wastewise



<p>Scenarios Politics and Government (5 weeks)</p>	<p>1. Identify capabilities and limitation of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.</p> <p>2. Evaluate technology-based options, including distance and distributed education for lifelong learning.</p> <p>Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.</p> <p>3. Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning.</p>	<p>Assessment objective 1: Knowledge and understanding of specified content</p> <ul style="list-style-type: none"> • Demonstrate an awareness of IT applications and developments in specified scenarios • Demonstrate an awareness of the social and ethical significance of specified IT applications and developments • Demonstrate technical knowledge of ITGS terminology, concepts and tools • Demonstrate technical knowledge of IT systems <p>Assessment objective 2: Application and analysis</p> <ul style="list-style-type: none"> • Explain the impacts of IT applications and developments in specified scenarios • Analyze the social and ethical significance of specified IT applications and developments • Transfer IT knowledge and make connections between specific scenarios 	<ul style="list-style-type: none"> • Political process • Government: Information • Database update • Control of citizens • Law & Order • Military 	<ul style="list-style-type: none"> • Arguing a case for the essay. • Laying out and editing e-zine article with image. 	<p>Formative: Weekly quiz (especially key terms) / news article to demonstrate topic understanding</p> <p>Summative: E-zine article of chosen topic. Essay response to “robotic in war....should there always be a human control factor?”</p>	<p>Politics and government PPT. World wide web consortium. Robots at war video collection</p>
<p>MOCK EXAMS</p>						
<p>Past papers 1 and 2 (4 weeks)</p>	<p>Use technology tools and resources for managing and communicating personal/professional information.</p> <p>Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity.</p> <p>Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content</p>	<p>Assessment objective 3: Synthesis and evaluation</p> <ul style="list-style-type: none"> • Evaluate local and global impacts of specified IT developments through individually researched studies • Evaluate a solution involving IT to a specified problem using knowledge of IT systems • Discuss the social and ethical implications of specified IT policies and developments 	<ul style="list-style-type: none"> • Open book • Exam conditions • Write your own 	<ul style="list-style-type: none"> • Researching topics. • Writing answers • Understanding what is being asked for and what to ask. 	<p>Formative: Practice previous papers. Find articles (scenarios) that are related to previous questions studied. Prepare questions and scenarios to assist with revision. Respond to classmate’s prepared questions.</p>	<p>Past papers and worked solutions</p>



	learning.					
HL Paper 3 Case study (4 weeks)	<p>Use technology tools and resources for managing and communicating personal/professional information. Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity. Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning. Investigate and apply expert systems, intelligent agents and simulations to real-world situations. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models, and other creative works</p>	<p>Assessment objective 3: Synthesis and evaluation</p> <ul style="list-style-type: none"> Evaluate local and global impacts of specified IT developments through individually researched studies Evaluate a solution involving IT to a specified problem using knowledge of IT systems Discuss the social and ethical implications of specified IT policies and developments 	<ul style="list-style-type: none"> <i>Past paper format.</i> <i>Previous teacher written questions</i> <i>Write your own</i> 	<ul style="list-style-type: none"> <i>Researching topics.</i> <i>Writing answers</i> <i>Understanding what is being asked for and what to ask.</i> 	<p><i>Prepare questions to assist with revision.</i></p> <p><i>Respond to classmate's prepared questions.</i></p>	<p><i>Past papers and worked solutions</i></p>