Law Ting Pong Secondary School
Information and Communication Technology (ICT)
Course Outline (Secondary 4)

General Description

The senior secondary Information and Communication Technology (ICT) curriculum provides students with knowledge, practical skills and an understanding of the processes involved in problem-solving using technology. It encompasses problem identification, solution and design, and the application of ICT knowledge and skills in these processes.

Learning Objectives

Through the study of the ICT subjects for S4-S6, students will be able to:

- develop knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data;
- Realise the social, ethical and legal issues pertaining to the use of ICT;
- Use a range of application software effectively, ethically and with discrimination to support information processing and problem-solving; and
- Demonstrate an understanding of methods for analysing problems, and planning and implementing solutions using ICT.

Topics and teaching schedule

Date(Week)	Topic(s)	Learning Objectives
3/9 to 4/9 (Week 1)	Introduction to the NSS ICT curriculum	
7/9 to 6/11 (Week 2-10)	1. **Introduction to Information Processing** 2. **Data Organization and Data Control** 3. **Number and Character Coding Systems** 4. **Multimedia Elements and Digitization** 5. **Introduction to Office Automation (Wor** ● Word Processing ● Spreadsheets ● Database ● Data Organization and Data Control	Students will be able to apply and understand: ● information systems and processes in real-life contexts; ● the difference between information and data; ● how data are organised and represented inside a computer; ● the integrated use of office automation software, and the appropriate processing and presentation of different types of information; and ● how advances in ICT foster the development of the information Age and its impact on society. **Formative Assessment** ● Kahoot ● Create a video ● Individual Project: What is multimedia? **Summative Assessment** ● Dictation ● Chapter quiz ● Unit Test
Week 11 Term Break		
16/11 to 18/12 (Week 12-16)	6. **Input and Output Devices** 7. **Secondary Storage Devices** 8. **The System Unit of a Computer System** 9. **Computer Systems** 10. **System Software and Application Software**	Students will be able to apply and understand: ● the functions and properties of the major components of a computer system and how these components interact together to perform tasks; ● the functions and properties of major peripheral devices, and their ● uses in specific situations; ● the use of different utility programs in managing systems and files; and ● the capabilities of different operating systems, and the basic concepts of a computer network and its applications

		<u>Formative Assessment</u> ● Research ● Assemble a computer ● Kahoot **<u>Summative Assessment</u>** ● Dictation ● Chapter quiz ● Unit Test
Week 17-18 Christmas and New Year Holidays		
4/1 to 15/3 (Week 19-29)	**11. <u>My First C Program</u>** **12. <u>Simple Data Types and Statements</u>** **13. <u>Selection Statements</u>**	Students will be able to apply and understand: ● the systematic approach to problem-solving; ● the application of concepts of systematic problem-solving to real-life problems; ● the use of pseudocode and/or a program flowchart to represent the algorithm; ● how to identify the objectives of an algorithm, trace the logical flow and examine values of variables during execution; and ● various ways of solving the same problem, and the differences between them. **<u>Formative Assessment</u>** ● C Program ● Flowchart ● pseudocode **<u>Summative Assessment</u>** ● C Program ● Unit Test
Week 30-32 ELW and Easter Holidays		

12/12 to 21/5 (Week 33-38)	**14. <u>The Networking and Internet Basics</u>** **15. <u>Communication Software and Protocols</u>**	Students will be able to apply and understand: ● How to connect to the Internet, and the hardware, software and Internet Service Provider(ISP) involved in accessing the Internet. ● The personal, social and commercial activities that are available on the Internet. ● How to participate in various Internet activities such as searching for information, sharing opinions, and exchanging messages and files. ● The technologies involved in transmitting and displaying multimedia elements on the Internet ● The design and construction of simple web pages for an intended audience. **<u>Formative Assessment</u>** ● Group project: Setup a local area network ● Research ● Kahoot **<u>Summative Assessment</u>** ● Dictation ● Chapter quiz ● Unit Test
24/5 to 9/6 (Week 39-41)	**<u>Revision for Final Exam</u>**	

Assessment Methods

During a module of study, students will utilise formative assessment in the form of classwork, homework, quizzes , tests , projects and extended learning in order to prepare them on ICT skills and concepts for summative assessment. A typical 'summative' component would involve mid-term test and final examination, it is all about summarising how much learning has taken place.

To assist students further with formative and summative assessment, our ICT teachers will provide lunchtime intervention sessions (in respective ICT rooms) for interested and concerned students.

Assessment Components and Weightings

Term	Component	Weighting
Term 1 (Sept to Jan)	Continuous Assessments	30%
	Mid-term test	10%
Term 2 (Feb to June)	Continuous Assessments	30%
	Final Examination	30%

Grade Boundaries and Descriptors

Grade	Performance Criteria	Boundaries
5*	*Demonstrate advanced skills and excellent use of a range of application software to support information processing and problem-solving.* *Analyse problems from a wide range of perspectives, and design and implement solutions incorporating a variety of methods.*	80+
5	*Demonstrate comprehensive knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply thorough analytical and interpretive skills to construct and improve on their own practices in using ICT.*	70-79
4	*Demonstrate sound knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply broad analytical and interpretive skills to construct and reflect on their own practices in using ICT.*	60-69
3	*Demonstrate adequate knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply relevant analytical and interpretive skills to construct their own practices in using ICT.*	50-59
2	*Demonstrate basic knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply basic analytical and interpretive skills to explain practices in using ICT.*	40-49
1	*Demonstrate elementary knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply simple analytical and interpretive skills to describe practices in using ICT.*	39 or below

Law Ting Pong Secondary School
Information and Communication Technology (ICT)
Course Outline (Secondary 5)

General Description

The senior secondary Information and Communication Technology (ICT) curriculum provides students with knowledge, practical skills and an understanding of the processes involved in problem-solving using technology. It encompasses problem identification, solution and design, and the application of ICT knowledge and skills in these processes.

Learning Objectives

Through the study of the ICT subjects for S4-S6, students will be able to:

- develop knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data;
- Realise the social, ethical and legal issues pertaining to the use of ICT;
- Use a range of application software effectively, ethically and with discrimination to support information processing and problem-solving; and
- Demonstrate an understanding of methods for analysing problems, and planning and implementing solutions using ICT.

Topics and teaching schedule

Date(Week)	Topic	Expected Outcome
3/9 to 4/9 (Week 1)	Induction Week	
7/9 to 6/11 (Week 2-10)	1. **Programming** 2. **Programming Languages** 3. **System Development**	Students will be able to apply and understand: ● How to define and analyse problems ● The importance of good programming skills and good programming styles. ● The importance of formulating appropriate algorithms in solving problems ● Creative design and development of computer programs ● How to illustrate different programming paradigms with appropriate programming languages ● How to choose different languages to meet different needs ● The importance of a systematic approach to software development ● How to apply concepts underlying software development in a systematic way **Formative Assessment** ● Case study ● C program ● Research **Summative Assessment** ● C Program ● Chapter quiz ● Unit Test
Week 11 Term Break		
16/11 to 18/12 (Week 12-16) SBA	**SBA Introduction** ● Weighting ● Aims and Objective ● Requirements **Task 1** ● Design & Implementation	The SBA component consists of two guided tasks, which comprises 20% of the subject mark. The guided tasks focus on ' Design & Implementation' and 'Testing & Evaluation' in the development of an information system.
Week 17-18 Christmas and New Year Holidays		
4/1 to 10/2	**Task 2**	

(Week 22-24)	● Testing & Evaluation	
Week 24-25 Lunar New Year Holidays		
22/2 to 15/3 (Week 26-29)	**4. <u>The Networking and Internet Basics</u>** **5. <u>Communication Software and Protocols</u>** **6. <u>Internet Services and Applications</u>** **7. <u>Elementary Web Authoring</u>**	Students will be able to apply and understand: ● How to connect to the Internet, and the hardware, software and Internet Service Provider(ISP) involved in accessing the Internet. ● The personal, social and commercial activities that are available on the Internet. ● How to participate in various Internet activities such as searching for information, sharing opinions, and exchanging messages and files. ● The technologies involved in transmitting and displaying multimedia elements on the Internet ● The design and construction of simple web pages for an intended audience. **<u>Formative Assessment</u>** ● Group project: Setup a cloud based system ● Case study ● Research **<u>Summative Assessment</u>** ● Dictation ● Chapter quiz ● Unit Test
Week 30-32 ELW and Easter Holidays		
12/12 to 21/5 (Week 33-38)	**8. <u>Equity, Work and Health Issues</u>** **9. <u>Intellectual Property</u>** **10. <u>Threats and Security on the Internet</u>**	Students will be able to apply and understand: ● Equity issues relating to access to ICT ● Health hazards and preventive measures in using ICT ● Major issues regarding intellectual property and privacy ● The potential threats on the Internet and measures to reduce them ● The need to use ICT safely, sensible, legally and ethically.

		Formative Assessment ● Individual project: google site ● Case study ● Research **Summative Assessment** ● Dictation ● Chapter quiz ● Unit Test
24/5 to 9/6 (Week 39-41)	**Revision for Final Exam**	

Assessment Methods

During a module of study, students will utilise formative assessment in the form of classwork, homework, quizzes , tests , projects and extended learning in order to prepare them on ICT skills and concepts for summative assessment. A typical 'summative' component would involve mid-term test and final examination, it is all about summarising how much learning has taken place.

To assist students further with formative and summative assessment, our ICT teachers will provide lunchtime intervention sessions (in respective ICT rooms) for interested and concerned students.

Assessment Components and Weightings

Term	Component	Weighting
Term 1 (Sept to Jan)	Continuous Assessments	30%
	Mid-term test	10%
Term 2 (Feb to June)	Continuous Assessments	30%
	Final Examination	30%

Grade Boundaries and Descriptors

Grade	Performance Criteria	Boundaries
5*	*Demonstrate advanced skills and excellent use of a range of application software to support information processing and problem-solving.* *Analyse problems from a wide range of perspectives, and design and implement solutions incorporating a variety of methods.*	80+
5	*Demonstrate comprehensive knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply thorough analytical and interpretive skills to construct and improve on their own practices in using ICT.*	70-79
4	*Demonstrate sound knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply broad analytical and interpretive skills to construct and reflect on their own practices in using ICT.*	60-69
3	*Demonstrate adequate knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply relevant analytical and interpretive skills to construct their own practices in using ICT.*	50-59
2	*Demonstrate basic knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply basic analytical and interpretive skills to explain practices in using ICT.*	40-49
1	*Demonstrate elementary knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply simple analytical and interpretive skills to describe practices in using ICT.*	39 or below

Law Ting Pong Secondary School
Information and Communication Technology (ICT)
Course Outline (Secondary 6)

General Description

The senior secondary Information and Communication Technology (ICT) curriculum provides students with knowledge, practical skills and an understanding of the processes involved in problem-solving using technology. It encompasses problem identification, solution and design, and the application of ICT knowledge and skills in these processes.

Learning Objectives

Through the study of the ICT subjects for S4-S6, students will be able to:

- develop knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data;
- Realise the social, ethical and legal issues pertaining to the use of ICT;
- Use a range of application software effectively, ethically and with discrimination to support information processing and problem-solving; and
- Demonstrate an understanding of methods for analysing problems, and planning and implementing solutions using ICT.

Topics and teaching schedule

Date(Week)	Topic	Expected Outcome
3/9 to 4/9 (Week 1)	Induction Week	
7/9 to 6/11 (Week 2-10)	● **Equity, Work and Health Issues** ● **Intellectual Property** ● **Threats and Security on the Internet**	Students will be able to apply and understand: ● Equity issues relating to access to ICT ● Health hazards and preventive measures in using ICT ● Major issues regarding intellectual property and privacy ● The potential threats on the Internet and measures to reduce them ● The need to use ICT safely, sensible, legally and ethically. **Formative Assessment** ● Individual project: google site ● Case study ● Research **Summative Assessment** ● Dictation ● Chapter quiz ● Unit Test

Week 11 Term Break	
16/11 to 22/1 (Week 12-21)	Revision
Week 22-24 S6 Final Exam	

Assessment Methods

During a module of study, students will utilise formative assessment in the form of classwork, homework, quizzes , tests , projects and extended learning in order to prepare them on ICT skills and concepts for summative assessment. A typical 'summative' component would involve mid-term test and final examination, it is all about summarising how much learning has taken place.

To assist students further with formative and summative assessment, our ICT teachers will provide lunchtime intervention sessions (in respective ICT rooms) for interested and concerned students.

Assessment Components and Weightings

Term	Component	Weighting
Term 1 (Sept to Dec)	Continuous Assessments	60%
	Final Exam	40%

Grade Boundaries and Descriptors

Grade	Performance Criteria	Boundaries
5*	*Demonstrate advanced skills and excellent use of a range of application software to support information processing and problem-solving.* *Analyse problems from a wide range of perspectives, and design and implement solutions incorporating a variety of methods.*	80+
5	*Demonstrate comprehensive knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply thorough analytical and interpretive skills to construct and improve on their own practices in using ICT.*	70-79
4	*Demonstrate sound knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply broad analytical and interpretive skills to construct and reflect on their own practices in using ICT.*	60-69
3	*Demonstrate adequate knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply relevant analytical and interpretive skills to construct their own practices in using ICT.*	50-59
2	*Demonstrate basic knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply basic analytical and interpretive skills to explain practices in using ICT.*	40-49
1	*Demonstrate elementary knowledge and understanding of the range and organisation of computer systems, and the interrelationships between hardware, software and data.* *Apply simple analytical and interpretive skills to describe practices in using ICT.*	39 or below