ICT DepartmentCourse Outline, Teaching Group–KS4 Y10

Course Overview–The Information Communication Technology syllabus combines theoretical and practical studies focusing on the ability to use common software applications, including word processors, spreadsheets, databases, interactive presentation software, e-mail, web browsers and website design. Students will develop a greater awareness of how applications are used in the workplace, and consider the impact of new technologies on methods of working and on social, economic, ethical and moral issues. The skills learnt will be useful to them in their work across the curriculum, and will prepare them for future employment.

Resources

- Laptops/Personal Computers.
- Fully functioning version of Microsoft Office (Word, PowerPoint, Publisher, Access & Excel. Plus either Front Page, Expression or any other Website Authoring software likeKompozer, Dreamweaver etc.).
- USB/Flash Drive.
- Folder to store printouts.
- Basic Stationary (pens, pencils).
- Homework Diary.
- Text Books/Past Papers (Yrs 10 & 11).

Additional Points…
Pupils should bring chargers for their Laptops, and any other additional hardware that may be required e.g. Mouse, Mats etc. Headphones are not allowed, unless required for a lesson on which occasion notice will given.
The use of External Flash drives is highly recommended, but any additional content should not be accessed without permission (e.g. Movies, Music etc.)
Make sure you carry stationary and your homework diary to make note of any additional work that has been set, along with notes on what you may not have completed in class and will need to finish at home.

Teacher's Expectations/Discipline Policy

Laptops MUST be brought to EVERY lesson!
During the lesson, only programs instructed by the teacher are to be used.
Pupils must not access the Internet without permission.
All portable wireless USB internet connections are banned, as are Mobile Phones & MP3 players.
Any Volume Controls on the Laptops must be muted in class.
Pupils MUST speak in English at all times.

Good Practice…
Arrive to the lesson on time.
Line up quietly outside the Lab before entering the lesson in an orderly fashion.
While waiting for your teacher, make sure you are wearing your uniform correctly.
Sit down at a computer, log on and unpack all of the equipment you will need for the lesson.
Listen carefully to your teacher and carry out the instructions given to you.
At the end of the lesson, save your work, log off and pack away, tuck your stool in tidily and wait quietly to be dismissed.
Set the Language & Dictionary on all Office programs to 'English (UK)'

Do's and DON'T's
PLEASE DO!
Put your hand up if you have any questions or would like assistance, as not to raise the noise level in the class.
Help each other to work and always try your hardest.
Be on time to meet deadlines.
Follow instructions and listen carefully.
All class and homework given.

PLEASE DON'T!
Shout out or speak whilst someone else is talking.
Be rude or talk back to ANYONE in the class.
Get out of your chair. (Unless given permission to do so.)
Disturb those around you!
Do not drink / chew / eat in class or drop litter.
Access software or files that you have not been given permission to open or use!

Organisation
- Organise your store directory into logical folders & sub-folders.
- Start each piece of work with the subject title and include a header of your name and the days date.
- Always save your work as a name that reflects the topic/subject matter you are working on.
- Make sure that you have utilised any facilities (canteen/bathroom) during breaks, or before/after class as missing any parts of the lesson could result in a limited understanding of the work being undertaken and hamper any future learning, assessment or collation of marks.

Always aim to be:-
Eager and willing to learn.On time and fully equipped for lessons.Polite and well mannered.Kind, considerate and thoughtful.Quiet and hardworking.

Rewards☺
Praise, Success, Certificates, Merits, Competition Entries, Prizes, Glowing references, Fame (KNES Website/Yearbook/News Articles)
Consequences☹
Moved to another seat in class,Behaviour Report Sheet Completed, Break Time Detention and thenWeekend Detention.
Placement on ICT report,Parents will be informed…ALSO Misdemeanors will be noted on your end of term report (which could affect your University application after you leave KNES.)Possibility of being excluded!

The Structure of the National Curriculum

The national curriculum applies to pupils of compulsory school age in maintained schools. It is organised on the basis of three key stages. For each subject, in each of the key stages listed, programmes of study set out what pupils should be taught and, for Key Stages 2 and 3, attainment targets set out the expected standards of pupils' performance.

At the end of Key Stages 2 and 3, standards of pupils' performance are set out in eight level descriptions of increasing difficulty, with an additional description above Level 8 to help define Exceptional Performance.

At Key Stage 4, external qualifications are the main means of assessing attainment in the national curriculum. The syllabus for the Cambridge International Examination combines theoretical and practical studies focusing on the ability to use common software applications. Divided into three examinations, totaling 7 hours, The two assessment objectives in ICT are:

AO1 Practical skills, where candidates should be able to demonstrate their ability to use a range of software packages in practical and work-related contexts. Plus, **AO2 Knowledge and understanding**, where candidates should be able to demonstrate their knowledge and understanding of the structure of ICTsystems, the roles of these systems in organisations and their impact on society.

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Key Stage	Year Grouping	Average Age Range	Estimated Level Range	Expected Attainment
Key Stage 2	3 - 6	7 – 11	2 – 5	4
Key Stage 3	7 - 9	11 – 14	3 – 7 (8)	5/6
Key Stage 4	10 - 11	14 - 16	Examination	Performance

IGCSE Course Aims

The aims, which are not listed in order of priority, are to:

1. help candidates to develop and consolidate their knowledge, skills and understanding in ICT and be aware of new and emerging technologies;
2. encourage candidates to develop further as autonomous users of ICT;
3. encourage candidates to continue to develop their ICT skills in order to enhance their work in a variety of subject areas;
4. provide opportunities for candidates to analyse, design, implement, test and evaluate ICT systems;
5. encourage candidates to consider the impact of new technologies on methods of working in the outside world and on social, economic, ethical and moral issues;
6. help candidates to improve their skills and increase their awareness of the ways in which ICT is used in practical and work-related situations.

The practical skills contained in the syllabus are directly applicable to the study of other subjects; in order to provide opportunities for their candidates to apply their ICT skills to a range of contexts as follows:

Term Topic Areas

The programme of study for KS4 will be taught within a 2 year cycle, in order to cover all of the key focus areas. 3 lessons per week will give focus to the practical element of the course and one session within the week will be given to the study of the theory topics.

Theory Topics

The curriculum content is set out in eight interrelated sections. These sections should be read as anintegrated whole and not as a progression. The sections are detailed below:

Candidates should be familiar not only with the types of software available and the range of ICT knowledgeand skills detailed below, but also with their uses in practical contexts. Examples of such uses are given ineach section of the subject content, as a teaching guide.
As ICT is a subject that is constantly developing, marks will be awarded for relevant answers which relate tonew or emerging technology that has not been specified in the syllabus.

Year 1,Term 1, Month 1	Year 1,Term 1, Month 2	Year 1,Term 1, Month 3
Components of Computer Systems	**Input & Output Devices**	**Software**
◉ Hardware and Software ◉ Main components of computer systems ◉ Operating Systems ◉ Types of Computers	◉ Inputs ◉ Outputs ◉ Control Devices & Processing	◉ Application software ◉ OS Software & GUI ◉ Utilities ◉ Help & Documentation ◉ Software Licensing

Year 1,Term 2, Month 1	Year 1,Term 2, Month 2	Year 1,Term 2, Month 3
Storage Devices & Media	**Computer Networks**	**Data Types**
◉ Backing up data ◉ Types of Access & Memory ◉ Backing Storage Media	◉ Common types of Networks ◉ Network devices ◉ The Internet ◉ Intranets ◉ Network Security ◉ Communication Methods	◉ Types of Data ◉ Data Structures ◉ Databases ◉ Analogue and Digital Data

Year 1,Term 3, Month 1	Revision	Past Paper Practice

Year 2,Term 1, Month 1	Year 2,Term 1, Month 2	Year 2,Term 1, Month 3
Systems Analysis & Design	**The Effects of Using ICT**	**ICT Uses**
◉ Introduction ◉ Analysis ◉ Design ◉ Development and Testing ◉ Implementation ◉ Documentation ◉ Evaluation ◉ The ICT System life cycle	◉ Software Copyright ◉ Viruses and Hacking ◉ Effects of ICT on society ◉ Internet Information and Developments ◉ Health and Safety	◉ Communication Applications ◉ Satellite and Mobile Networks ◉ Data Handling ◉ Modelling ◉ Types of Processing ◉ Control ◉ Robotics

Year 2,Term 2, Month 1	Year 2,Term 2, Month 2	Year 2,Term 2, Month 3
ICT Uses	**ICT Uses**	**& Year 2, Term 3**
◉ Batch Processing ◉ Automatic Stock Control ◉ Online Bookings ◉ Banking ◉ Library Systems ◉ Expert Systems ◉ A typical Day ◉ Payroll ◉ Airline Bookings	◉ Supermarkets ◉ Banking ◉ Engineering and Manufacturing ◉ Education ◉ The Law ◉ Health Care ◉ Social Impact of ICT ◉ Crime ◉ Security	***Past Paper Practice & Revision for Final Course Assessment*** Paper 1 - 2 hours Written paper testing sections 1–8 of the curriculum content and assessing the skills in Assessment Objective AO2, Knowledge and understanding, where candidates should be able to demonstrate their knowledge and understanding of the structure of ICTsystems, the roles of these systems in organisations and their impact on society. All questions compulsory: mostly multiple choice or short answer questions, but also some requiringlonger responses 100 marks weighted at 40% of total

Practical Topics

Year 1, Term 1	Year 1, Term 2	Year 1, Term 3	Year 2, Term 1	Year 2, Term 2	Year 2, Term 3
Communicating Information.	Presentation Authoring & Email	Data Handling.	Modelling Data.	Website Authoring.	Revision
Software: Microsoft Word, Publisher &PowerPoint.	Software: Microsoft Word, PowerPoint&Outlook or other web based email providers.	Software: Microsoft Access&PowerPoint.	Software: Microsoft Excel, Word &PowerPoint.	Software: Microsoft FrontPage&PowerPoint.	Past Paper Practice.

Year 1, Term 1	Year 1, Term 2	Year 1, Term 3
Communicating Information Word Processing, DTP & Graphics ◉ Word Processing ◉ Editing text ◉ Formatting ◉ Page Setup ◉ Templates ◉ Mail Merge ◉ Graphics ◉ Symbols and Special Characters ◉ Drawing Tools ◉ DTP Document Production * Keying in Text * Editing * Importing Images * Formatting Pages * Headers and Footers * Widows and Orphans * Font Styles and Sizes * Tables * Text Alignment * Lines Spacing * Generic File Types * Entering Data from Existing Files * Importing Images * Resizing * Wrapping Text around Images * Cropping * Formatting Pages * Page, Section & Column Breaks * Using Columns * Emphasising Text * Lists * Tables * Correcting Errors	Presentation Authoring * Master Slides * Creating Slides * Creating Charts * Adding Presenter notes * Images * Transitions * Animation * Saving& Printing Communication * Using Email * Opening the Mailbox * Organising Mail * Email Etiquette * Sending * Receiving * Managing Contacts * Attachments * Saving Files * Using the Internet * Opening a website from a URL * Using a Search Engine Output Data * Saving Documents * Printing	Data Handling/Databases ◉ Creating ◉ Designing ◉ Tables ◉ Queries ◉ Reports ◉ Macros Data Manipulation * Database Structures * Creating a Database from an Existing File. * Entering Data * Searches * Reports * Formulas in Queries * Formulas in Reports * Sorting Data Data Analysis * Data Models * Creating * Testing * Selecting Subsets of Data * Sorting * Using Display Features * Producing Charts

Year 2, Term 1	Year 2, Term 2	Year 2, Term 3
Modelling/Spreadsheets • Basic Concepts • Formulas • Formatting • Sorting • Graphs & Charts • The IF Function • Lookup tables • Multiple Worksheets • Macros • Modelling Integration * Importing Documents * Showing Evidence of Methods * Combining Documents and Spreadsheets * Display Consistency * Precision Framing	Website Authoring * Format text using pre-defined styles * Opening existing websites and enhancing text * Working with Styles * Creating a cascading stylesheet * Lists * Colour * Hyperlinks * Tables * Images **Past Paper Practice & Revision**	**Final Course Assessment** Paper 2 - 2½ hours Practical test assessing knowledge, skills and understanding of Assessment Objective AO1 Practical skills, where candidates should be able to demonstrate their ability to use a range of software packages in practical andwork-related contexts. 80 marks weighted at 30% of total Paper 3 - 2½ hours Practical test assessing knowledge, skills and understanding of Assessment Objective AO1 Practical skills, where candidates should be able to demonstrate their ability to use a range of software packages in practical andwork-related contexts. 80 marks weighted at 30% of total

Year 1, Term 2	Task/Topic Area	Learning Outcomes
Week Range 1-11	**Communicating Electronically & Handling Information**	**Students will be able to: -**
1 - 2	Consolidation of work from Term 1, Recapping example answers from Term 1's Theory and Practical Papers.	Reinforce existing knowledge, find common errors through the marking of papers and be aware of what is required in the practicals.
3 - 6	Reinforce basic knowledge of electronic communicationby completing assessed tasks that are focussed on Emailing, and based on practical examination tasks.	Use and organise Emails, be aware of Email Etiquette, Manage Contacts, send Attachments and save the Files as well as be able to Use the Internet, search engine and be able to open a website from a URL.
6 -9	Introduction to Data Handling module, noting specifications of the IGCSE examinations. Emphasis on Skills learnt by performing a coursework style assessed project.	Consolidate existing knowledge of databases by creating tables, queries, reports and editing features of the software by attempting assessed tasks and past paper practice.
10 - 11	Spare week to cover printing, lessons lost due to holidays/other time tabling eventualities and revision for the examination week.	Complete all given tasks for the end of term assessment, print and submit for marking. Time for revision and consolidation of topics and resources will be given in order for pupils to successfully pass the examination.
One lesson per week.	Introduction of Theory Elements.	Place knowledge into context and prepare for the written examination by covering the topic areas listed below, along with the completion of past paper practice.

By undertaking relevant project work, students will be able to apply the above base knowledge to a range of differing scenarios whilst producing class or homework. By continued practicing of these key skills in lessons assessed tasks will grade and level the students understanding of the subject matter.

Attainment target for information and communication technology capability

Pupils evaluate software packages and ICT-based models, analysing the situations for which they weredeveloped and assessing their efficiency, ease of use and appropriateness. They suggest refinements toexisting systems and design, implement and document systems for others to use, predicting some of theconsequences that could arise from the use of such systems.When discussing their own and others' useof ICT, they use their knowledge and experience of information systems to inform their views on thesocial, economic, political, legal, ethical and moral issues raised by ICT.

Term Assessment

Description	Percentage	
Coursework: Assessed Tasks x 2	20 + 20%	= 40%
Coursework: Class Tasks (Practice) & Homework's	10%	**= 50%**
Internal Assessments (Lack of Equipment, Homework & Willingness to Learn)	Will be	Deducted
End of Term Exam	**50%**	

Students please remember:-
If you are absent, it is your responsibility to collect any class or homework assignments (either from the teacher or your peers) and submit it upon your return. Any work that has been lost as a result of formatting, or 'completed' but not brought to school will be regarding as not being attempted. Similarly, 0marks will be awarded to students who neglect to bring their laptops to school on the day of an assessed task. If you do miss an assessment for any reason, estimated marks/re-sits can be organised with the production of a medical note.