

**Federal Democratic Republic of Ethiopia
Ministry of Education**

**Information Communication Technology
Syllabus Grade 11**

2009

Participants

Addis Ababa and other Regions ICT (Teacher)

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Coordinator

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Development
Department (MOE)

ICT Grade 11

<i>Competencies</i>	<i>Content</i>	<i>Suggested Activities</i>
	<p>computers in offices</p> <ul style="list-style-type: none">• Impact of mobile phones• Impact of satellite broadcasting• Differences between information poor and information rich society	

Assessment

The teacher should assess each student's work continuously over the whole unit and compare it with the following description, based on the specific objectives, to determine whether the student has achieved the minimum required level.

A student working at the minimum requirement level will be able to: Describe some applications of ICT, Explain the definition of each types of IS, Explain the application of each types of IS and Describe the impact of ICT in everyday life

Students working above the minimum requirement level should be praised and their achievements recognized. They should be encouraged to continue working hard and not become complacent.

Students working below the minimum requirement level will require extra help if they are to catch up with the rest of the class. They should be given extra attention in class and additional lesson time during breaks or at the end of the day.

Unit 2 Enhancing the Use of Software (24 periods)

Unit Outcome: Students will be able to

- Recognise to choose appropriate software tools to solve problems, illustrate ideas, and clarify thinking in the other subjects chosen for study in grade 11

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Solve problems by specific software • Illustrate their ideas • Organising their contents • Testing their hypotheses 	<p>2. Using application software</p> <ul style="list-style-type: none"> • Word Processing, <ul style="list-style-type: none"> - overview - Section breaks - Mail merge - Header & Footer • Presentation Software <ul style="list-style-type: none"> - overview • Spreadsheets, <ul style="list-style-type: none"> - overview - If condition with AND or OR • Publishing Software <ul style="list-style-type: none"> - overview • Database Management <ul style="list-style-type: none"> - overview - Main/sub Reports - Group section 	<ul style="list-style-type: none"> • Students should Use the correct software tool and will enhance knowledge of IT at the same time as the chosen subject • This should be done joint assessment by It teacher and subject teacher • Students should use appropriate software tools e.g. spread sheet package to solve a mathematical problem

Assessment

The teacher should assess each student's work continuously over the whole unit and compare it with the following description, based on the specific objectives, to determine whether the student has achieved the minimum required level.

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Unit 3 Basic Troubleshooting (18 periods)

Unit Outcomes: Students will be able to

- Recognise basic idea in preventive maintenance
- Apply the knowledge gained in preventive maintenance to prolong the life of the computer
- Be aware of basic safety issues
- Recognise major hardware components inside the computer
- Acquire knowledge on how to format hard disc and install software

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Identify proper location for the computer • Protect computers from harm and damage • Explain possible problems that may occur with the power supply • Explain the use of stabilisers and UPS • Back up files stored in the computer • Use defragmenter and disk cleanup to improve hard disk performances <ul style="list-style-type: none"> • Apply safe methods • Define ESD • Identify some ESD types • List some types of ESD protection Devices <ul style="list-style-type: none"> • Explain the concept of ergonomically correct computer and seating 	<p>3.1 Basics of Preventative Maintenance(2 periods)</p> <ul style="list-style-type: none"> • Environment and location of a computer • Electric power • Back up methods • Manual • Using utility programs <ul style="list-style-type: none"> • Improving hard disk performance • Disk Defragmenter • Disk cleanup <p>3.2 Basic Safety Issues (1 period) <i>should mention eye strain some where!!</i></p> <ul style="list-style-type: none"> • Overview of safety measures • Electro Static Discharge (ESD) • Hidden ESD • Catastrophic ESD • Degradation 	<ul style="list-style-type: none"> • The teacher will explain and demonstrate • The students will practice as the teacher instructs about <ul style="list-style-type: none"> • Environment and location of a computer, Computer cleaning tools ,Compressed air, Liquid cleaning compounds, Clean or soapy water and a damp cloth, Glass cleaner, Lint free cloth, • Electric power, Input voltage (220V), Plugging power cable, Electric power fluctuation, Power surge, Power sags, Power spike, Avoiding electrical problems, UPS expand ups, Standby power system, Surge suppressors <ul style="list-style-type: none"> ▪ Back up methods, Manual • Using utility programs • Improving hard disk performance • Disk Defragmenter • Disk cleanup <ul style="list-style-type: none"> • Explain the concept of safety precautions, ESD and its effect. Explain and demonstrate • ESD protection devices and an ergonomically correct computer

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<ul style="list-style-type: none"> • Plug properly input and output devices with the system unit. • Describe the general steps to troubleshoot problems • Troubleshoot minor Problems related with some common input and output devices. • Install and uninstall applications software 	<ul style="list-style-type: none"> • Some common ESD protection devices • Anti- Static Wrist and ankle Straps • Anti-Static mats • Setting up an Ergonomic Computer and seating <p>3.3 Hardware Maintenance Basics (2p)</p> <ul style="list-style-type: none"> • Connecting basic input and output devices with the system units • Checking dead system <ul style="list-style-type: none"> • general steps to troubleshoot problems • Troubleshooting common input and output devices <p>3.4. Installing and uninstalling applications software (2 periods)</p> <ul style="list-style-type: none"> • Installing application software e.g. (Microsoft Office) <p>uninstalling application software e.g. (Microsoft Office)</p>	<ul style="list-style-type: none"> • The teacher will demonstrate how to plug properly input and output devices with a system unit. • Explain the basic steps to follow while troubleshooting problems • The teacher will explain and demonstrate how to install and uninstall application software <p>The students will practice used computer and Application software CD, Ask the students to install and uninstall an application system.</p>

Assessment

The teacher should assess each student's work continuously over the whole unit and compare it with the following description, based on the specific objectives, to determine whether the student has achieved the minimum required level.

A student working at the minimum requirement level will be able to Identify proper location for the computer, Protect computers from harm and damage, Explain possible problems that may occur with the power supply, Explain the use of stabilisers and UPS, Identify proper location for the computer, Protect computers from harm and damage, Explain possible problems that may occur with the power supply, Explain the use of stabilisers and UPS, Back up files stored in the computer, Use defragmenter and disk cleanup To improve hard disk performances, Apply safe methods, Define ESD, Identify some ESD types, List some types of ESD protection Devices, Explain the concept of ergonomically correct computer and seating, Plug properly input and output devices with the system unit, Describe the general steps to

troubleshoot problems, Troubleshoot minor problems related with some common input and output devices. and Install and uninstall applications software

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Unit 4 Exploiting the Internet (18 periods)

Unit Outcomes: Students will be able to

- Find specific information on the world wide web in the form of text, images or sound required to solve a problem
- Develop an awareness of web developments in making information available in different formats.

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Use Boolean searching techniques • Report on improvements • Explain the function ability of wikis, blogs and pod casts list the advantages of their use • Explain what is meant by” social networking ‘ • Design a simple Webpage • Implement the webpage Publish webpage 	<p>4.1 Advanced Searching (1 period Exact match “x”or “y” “x” and “y” “x”but “y” Language limitations</p> <p>4.2 Using Wikis, Blogs and Podcasts (periods</p> <p>4.3 Social Networking (periods),</p> <p>4.4 Producing a Webpage using simple Web design software</p> <p>4.5 Publishing to a web server (or free web server or a wikipedia webserver)</p>	<ul style="list-style-type: none"> • Using handout from teacher to solve problems involving It in some way e.g. Explore connection between Newman Hollenith and the millennium bug • Visit at least one wiki e.g. wikipedia • Set up a blog about life in their community • View and listen to a podcast e.g. BBC • Students should join a social network e.g. face book ,his etc • Students should have computers and access to the internet and Webpage software • Students should implement the webpage by selecting free web server or a wikipedia webserver

Assessment

The teacher should assess each student's work continuously over the whole unit and compare it with the following description, based on the specific objectives, to determine whether the student has achieved the minimum required level.

A student working at the minimum requirement level will be able to Use Boolean searching techniques, Report on improvements, Explain the function ability of wikis, blogs and pod casts list the advantages of their use, and Explain what is meant by "social networking"

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Unit 5 Image Processing and multimedia Systems (27 periods)

Unit Outcomes: Students will be able to

- Understand the concept of image processing.
- Differentiate image file format.
- Recognize the function of image processing software.
- Recognize Interface layout of Image processing software
- Edit images properly using image processing software.

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> • Define Image processing • List and explain different types of image file formats • Open and setup a new document. • Save an image document. • List and explain common Interface layout of image processing software 	<p>5.1 Overview of Image Processing (period)</p> <ul style="list-style-type: none"> • Overview of Image processing • Definition of image processing • Image processing software • Image file format <p>5.2 Basics of Image Processing (periods)</p> <ul style="list-style-type: none"> • Getting Started <ul style="list-style-type: none"> • Opening new document • Setting up a document • Creating an image • Saving image document • Interface layout • Inserting image from a file or other devices 	<ul style="list-style-type: none"> • Give a brief explanation of Image processing • Describe about image processing software and it's function. • List and explain the different image file format • Image file format Gif, Jpg, Bmp, and Tif • Demonstrate how to get started of Image processing software. • Demonstrate and explain the properties to be set in a document • List and Demonstrate interface layout of the image processing software listed under the content. • Students should Setting up a document like Page size and orientation, Resolution, Colour mode and Background content • Students should Interface layout like Menu bar, Tool bar, Image area, Palettes, Navigator and Colour swatch, , style, History, Layers, Tool box , Selection tools, Alteration tools, Drawing and Selection tools, Assisting tools and Colour boxes and Modes

<i>Competencies</i>	<i>Contents</i>	<i>Suggested Activities</i>
<ul style="list-style-type: none"> Edit an image in a desired way. 	<p>5.3 Basic Image editing(cropping, resizing, correcting, sharpening/softening) (2 periods)</p> <ul style="list-style-type: none"> Basic Image editing <ul style="list-style-type: none"> Cropping Resizing Correcting Sharpening / Softening -Sharpening Softening 	<ul style="list-style-type: none"> Students should define what an image editing is. Demonstrate and explain the image editing options listed under the content. Students should editing image with cropping like Cropping with the crop tool, Cropping to a specific size, and Cropping with the marquee tool Students should resize image like Resizing to a specific size, Resizing Digital photo and Enlarging Students should correct image like Red Eye removal, Hot Spot Removal, Adding Flash, and Colour Adjustment Ask the students to scan their photograph and edit in the desired size and colour Resources: Computer ,Image Processing Software, Scanner, Digital camera

Assessment

The teacher should assess each student’s work continuously over the whole unit and compare it with the following description, based on the specific objectives, to determine whether the student has achieved the minimum required level.

A student working at the minimum requirement level will be able to Define Image processing, List and explain different types of image file formats, Open and setup a new document, Save an image document, List and explain common Interface layout of image processing software, and Edit an image in a desired way

Students working above the minimum requirement level should be praised and their achievements recognized. They should be encouraged to continue working hard and not become complacent.

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