Basic Computer Skills Syllabus

for preschool

(BCS-101)

Ministry of Education

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**Course Title: Basic Computer Skills for Preschool**

**Course Code: BCS-101**

**Credit Hour: 1hr**

**Contact Hour: 2 hrs**

**Rationale:**

In today’s world ICT is becoming more and more integrated into the lives of a society. Due to the advancement of computer technology, the different ICTs have been converged together and become accessible to the wider population easily. A simple mobile phone can be used as a Radio, TV, Music player, internet browser, etc. Thus, the educational system is under the influence of the dynamic ICT. In this flexible and lifelong learning process, all teachers are finding that ICT is becoming pivotal to the teaching and learning process.

We can hardly imagine an educational institution today, of any stage, without any presence of ICT in any corner of the world. As Siraj-Blatchford and Whitebread (2003) pointed out, young children today are growing up in a world which not only contained by is also increasingly shaped by ICT. More and more children are encounter a computer before they go to school, even before they go to pre-school. It is then natural to notice that they are exposed to all kinds of impacts of ICT. Thus, pre-school teachers training institutions must look for procedures and strategies on how to equip teachers to harness the potentials of ICT so that the learning objectives are achieved in a way closer to 21st century expectations and requirements.

When used appropriately, ICT can be a productive tool for supporting young children‘s learning and development. Studies suggest that ICT use can provide a context for positive learning experience between children, or between children and adults. However, in order to obtain this, practitioners must adopt new pedagogical strategies to harness this potential. Therefore, this course is designed with the intention to equip pre-school teachers in Ethiopia with the basic knowledge of ICT and how to infuse ICT into the teaching and learning process of young children.

**Course Description**

The course introduce students with the ICT tools used in preschool teaching, how to plan and use those tools in preschool, supports students to understand the basic hardware and software components of a computer system, using Computers and developing documents and Safety concerns while using ICT in preschool**.**

**Learning Outcomes**

Upon completion of this course prospective teachers should be able to:

* Understand the basics of ICT
* Apply ICT tools in the teaching learning process
* Use computers for preparing teaching tools
* Use MS-Office Word to create documents
* Become more competent ,Confident and capable for integrating the use of ICT into their teaching learning process

**Chapter One**

**Fundamental Concepts of ICT (2 Hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Understand the basic concepts of ICT
* Know the basic terminologies used in ICT
* Recognise the tools used in preschool education
* Understand the role of ICT in preschool

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Explain what an ICT mean * Identify ICT tools * Define terminologies used in ICT * Identify why the prospective teachers use ICT in preschool education * Explain how they use the tools in preschool education | * 1. Introduction to ICT      1. Definitions of ICT      2. Meaning of Data, Information, Communication and Technology      3. Tools Used in ICT   2. The role of ICT in preschool Education | 1 hr | * Brainstorm on the general concept of ICT * Students discuss in group the definitions of terminologies used in ICT * Demonstrate ICT tools and discuss their uses * Field observation of tools used in ICT * Role play in groups on using ICT tools in preschool education * Brainstorm on the role of ICT in preschool * Discuss in groups on the benefits of ICT in preschool. | * Computer * Radio * TV * Printer * Mobile phones * CD/DVD player * Scanner * Public phones * Digital camera * Tape recorder | * Ask the students key questions on ICT and check their responses * Give a list of data, Information and ask them to identify * Ask students to give examples of ICT tools |

References: Peter Nortons, Introduction to Computer, 6th ed., McGraw Hill, (2005).

**Chapter Two**

**The Computer System (4 hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Know definition and basic functions of a computer system
* Understand the characteristics and types of computer
* Know the basic components of a computer system

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Define the computer system * Explain the basic tasks that a computer can perform * Explain the capabilities and limitations of a computer | 2.1 Definition of a computer system  2.2 Characteristics of a computer   * + 1. Capabilities of computer     2. Limitations of computer | 1hrs | * Brainstorm on what a computer is and its functions * Explain the characteristics of computer * Discuss in groups on the capabilities and limitations of a computer system * Cross over groups to discuss the findings of each group | * Computer * Tablets * Mobile phone * Laptop | * Ask the students to explain the computer system and characteristics of a computer * Check the students labelling of the part of the computer * Project work |
| * Identify the components of computer system * Define hardware and software * List different hardware components of computer system * Classify hardware components into different categories * Explain functions of each hardware components. * Discuss the purpose of system and application softwares * Explain the basic tasks of an operating system | * 1. Components of computer system   2.4.1 Hardware components   * + - 1. Input devices   2.4.1.2 Processing devices  2.4.1.3 Output devices  2.4.1.4 Storage devices   * + 1. Software components        1. System software   2.4.2.2 Application software | 3hrs | * Discuss the main components of computer * Demonstrate the main hardware components * Discuss basic functions of the hardware components * Discuss the common types of software and their uses * Discuss the difference between system and application software | * Computer * LCD projector * Printer * CD/DVD/Flash disk/External Hard disk * Digital camera * Headphone or Earphone * Microphone * Speaker * Scanner * Mouse * RAM * Windows |

References: Peter Nortons, Introduction to Computer, 6th ed., McGraw Hill, (2005).

**Chapter Three**

**Introduction to Microsoft Windows (10 hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Understand the basic features of MS Windows
* Know how to operate the computer system
* Accomplish different tasks using a computer

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Properly turn on and off a computer system * Explain what a desktop is * Identify desktop elements * Use mouse actions * Identify basic window Components * Use the window components to manage a window | 3.1 Starting and Closing a  Computer System   * 1. Exploring the desktop * Background * Icon * Taskbar * Start button * Mouse pointer   3.3 Mouse Operations   * Point * Click * Right Click * Double Click * Drag and Drop   3.4 Basic Window Components   * Title Bar * Minimize Button * Maximize/Restore Button * Close Button * Menu Bar * Scroll Bar | 4hrs | * Demonstrate how to restart and turn off computers properly * Assist student to restart and turn off their computer * Show each desktop components * Demonstrate how to use mouse * Explain the functions of each mouse operation * Demonstrate to the students how to start, minimize, maximize and close windows program * Let students to exercise on how to start, minimize, maximize and close windows program | * Computer * LCD Projector * White board * CD * Flash * Hard Disk | * Observation on students activities * Checking students group activities * Checking the students performance by giving pair work, group work and class activity |
| * Distinguish files and folders * Create files and folders * Rename, delete and restore files and folders * Access different storage devices * Search files and folders from the computer | 3.5 Managing files and folders   * + 1. Create files and folders     2. Rename files and folders     3. Delete and restore files and folders   3.6 Accessing Disk drives   * Accessing Hard Disk * Accessing Compact Disk * Accessing Flash Disk   3.7 Searching files and folders | 4hrs | * Discuss the main concepts of files and folders * Show the steps how to create folders and files * Demonstrate the steps how to rename, delete and restore files and folders * Let the students to practice how creating, renaming, deleting and restoring files and folders * Let students to exercise on how to access disk drives * Demonstrate how to search files and folders | * Computer * LCD Projector * White board * CD * Flash * Hard Disk | * Observing the students practical activities * Checking the students practical activities * Supervise Students while practicing using paint and calculator |
| * Use Windows accessories like paint and calculator | 3.7 Using Windows Accessories   * + 1. MS Paint     2. Calculator | 2hrs | * Demonstrate students how to draw, edit and view pictures using paint * Assist students to draw different shapes * Demonstrate how to open a calculator * Show students how to perform simple to advanced calculation |

References: Shelly Microsoft Office 2007: Introductory Concepts Cashman Vermaat Software: Microsoft Word Office Professional 2007 (Word, Excel, Access, Winedit and PowerPoint)

**Chapter Four**

**Introduction to Microsoft Office Word (14hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Understand basic functions of Word processing Software.
* Know commonly used features of Microsoft Office Word.
* Use Microsoft Office Word to create and edit professional looking documents.

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Open MS-Office Word 2007 or later version * Identify the main window components of MS-Word 2007 or later version * Create a new document using MS-Word * Save the file(document) in specific folder * Open an existing Word files * Save changes made to the files | 4.1 Starting MS-Word  2007  4.2 Exploring MS-Word  Window Components   * Title Bar * Office Button * Ribbon * Quick Access Toolbar * Views   4.3 Creating and Saving  a new document  4.3.1 Creating a new  document  4.3.2 Saving documents  4.4 Opening an existing  document and save  changes  4.4.1 Opening an  existing document  4.4.2 Save changes | 2hrs | * Discuss about a word processing Software * Show steps to open word application window * Let the students to practice opening the application * Help students to identify the word components * Demonstrate how to create and save word documents | * Computer * Projector * Printer * White board | * Follow up the students while they are opening word application window * Follow up the students while they are creating and saving documents * Asking students to open existing documents * Giving practical activities in their group |
| * Select, copy and move texts * Search a text within a document and replace it * Change appearance of text and paragraph of a document * Change alignment and indentation of a document * Add lists and borders | * 1. Editing Document      1. Selecting text      2. Inserting and deleting text      3. Undo and Redo      4. Cut, Copy and Paste   4.6 Formatting a Document  4.6.1 Character Formatting  4.6.2 Paragraph Formatting | 4hrs | * Demonstrate steps for students how to insert, delete, copy, cut and paste documents * Guide Students to insert, delete, copy, cut and paste their own documents individually and in pairs * Demonstrate how to format the word documents | * Computer * Projector * White board | * Giving practical activities for students to insert, delete, copy, cut and paste documents * Checking the students practical activities |
| * Create and Insert a table on the word document | * 1. Working with tables      1. Inserting table      2. Selecting cell, row   and column   * + 1. Merging and   Splitting Cells   * + 1. Deleting and   inserting cells, rows,  and columns | 3hrs | * Demonstrating steps how to create table * Demonstrating steps how to select, merge, split, delete and insert cells, columns and rows * Let the students to create tables with different number of rows and columns | * Computer * Projector * White board | * Giving practical exercise and following students progress |
| * Insert a picture, ClipArt, Shapes and WordArt | * 1. Inserting pictures, ClipArt, WordArt and shapes      1. Inserting pictures      2. Inserting Clip Art      3. Inserting shapes | 3hrs | * Demonstrating the steps how to insert pictures, ClipArt, WordArt and shapes * Let the students to insert pictures, ClipArt, WordArt and shapes | * Computer * Projector * White board | * Giving practical exercise and checking students progress |
| * Manage a document to be printed * Print documents created on word application | * 1. Printing Documents      1. Print Preview      2. Page Set up         1. Orientation         2. Margin      3. Printing         1. Selecting Printer         2. Page Range         3. Number of copies         4. Zoom | 2hrs | * Let the students to create word documents and let them to manage and print the files | * Computer * Projector * White board * printer | * Observe the students while they are creating, managing and printing files |

References: Shelly Microsoft Office 2007: Introductory Concepts Cashman Vermaat Software: Microsoft Word Office Professional 2007 (Word, Excel, Access, Winedit and PowerPoint)

**Chapter Five**

**Safety Concerns on Using ICT in Preschool (1hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Be aware of safety concerns in using ICT tool in preschool Education.
* Know safety issues related to Using ICT in preschool.
* Know how to prevent ICT tools from damage.

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Protect children from safety hazards in using ICT tools in preschool | * 1. Safety measures      1. Precautions on using electricity      2. Precautions on using tools causing health problem on children         1. Screen: Vision Problem         2. Seats : Back Pain Problem         3. Wrist Joint Problem | 1hrs | * Brainstorm on safety concerns using ICT in Preschool * Discuss the Issues of safety rules in group * Cross Over Discussion on the findings of Each group | * Computer * Projector * Antistatic wrist straps * Antistatic floor mats | * Presentation in groups * Asking students oral questions after their presentation * Written Exam |

**Chapter Six**

**Internet Basics (1hrs)**

**General Unit Objective:** After Completing this chapter the prospective teachers will be able to:

* Be aware of using Internet in preschool Education.
* Know how to download teaching materials for preschool education.

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| **Specific Objectives** | **Contents** | **Time** | **Teaching and Learning Methodology** | **Instructional Material** | **Assessment techniques** |
| * Can search teaching tools from the internet * Update the learning contents | * 1. Browser   2. Search Engine   5.3.1 how to search information  from internet | 2hrs | * Brainstorm on using Internet on Preschool education * Cross Over Discussion on the findings of Each group | * Computer * Projector * Internet | * Presentation in groups * Asking students oral questions after their presentation * Written Exam |

References:

* Interplay: Play, learning and ICT in pre-school settings, Lydia Plowman & Christine Stephen,

Institute of Education, University of Stirling

* The role and potential of ICT in early childhood education, New zealand council for educational research, wellington 2004

##### Methods of Assessment

1. Project work 20%
2. Practical group work I 20%
3. Practical group work II 20%
4. Midterm Examination 15%
5. Final Examination 25%.

Total 100%