EN1301- Personal Computing
(Enhancement Course)
With Effect from 01st October 2013

INTRODUCTION

This is one of the 3 Enhancement courses offered in Semester 1 of Bachelor of Information Technology degree program. This course starts with all basic computer operation skills and moves towards the advanced information including file handling, data processing, information presenting, graphic and web designing methods using Computer Applications.

CREDITS: 02

LEARNING OUTCOMES

After successfully completing this course you will be able to:
- Handle and manage files and folders in a computer
- Identify different types of applications and their usage
- Create documents using a word processing application
- Create spreadsheets using a spreadsheets application
- Create databases using a database application
- Design presentations using a presentation application
- Design and edit graphics using a graphic design application

MINOR MODIFICATIONS

When minor modifications are made to this syllabus, those will be reflected in the Virtual Learning Environment (VLE) and the latest version can be downloaded from the relevant course page of VLE. Please inform your suggestions and comments through the VLE. http://vle.bit.lk

ONLINE LEARNING MATERIALS AND ACTIVITIES

You can access all learning materials and this syllabus in the VLE: http://vle.bit.lk, if you are a registered student of BIT degree program. It is very important to participate in learning activities given in the VLE to learn this subject.

ONLINE ASSIGNMENTS

The assignments consist of two quizzes, assignment quiz 1 (It covers the first half of the syllabus) and assignment quiz 2 (It covers the second half of the syllabus). Maximum mark for a question is 10; minimum mark for a question is 0 (irrespective of negative scores). Final assignment mark is calculated considering 40% of assignment quiz 1 and 60% of assignment quiz 2. Pass mark for the online assignments in a course is 50. You are advised to do online assignments before the final evaluation of the course. It is compulsory to pass online assignments to partially qualify to obtain year 1 certificate.

FINAL EVALUATION

At the end of this course you will be evaluated using two tests. First will be a 1 hour written paper consisting of multiple choice questions. Pass mark for this question paper is 50. Only those who pass the multiple choice test will be qualified to attempt the

second examination which is solely practical oriented. The practical exam will be designed in a way to evaluate your capability in using the applications mentioned on the syllabus using a 2 hour practical paper. Pass mark for the practical examination is 50. It is compulsory to pass both examinations in order to pass this course.

OUTLINE OF THE SYLLABUS

Topics	Hours
1. Introduction to Computer Application Software	01
2. Word Processing Applications	12
3. Spreadsheet Applications	08
4. Database Applications	08
5. Presentation Applications	05
6. Graphic Design and Image Editing Applications	06
Total	**40**

REQUIRED MATERIALS

Main Reading

Learner should use the following user manuals as main reference materials.

- Ref1: Lecture Notes for each section

OpenOffice.org 3.3 User Guides (PDF) can be downloaded from

http://wiki.openoffice.org/wiki/Documentation/OOo3_User_Guides/OOo3.3_User_ Guide_Chapters

- Ref2: Getting Started Guide V3.3
- Ref3: Writer Guide V3.3
- Ref4: Calc Guide V3.3
- Ref5: Impress Guide V3.3

GIMP 2.8 User Manual can be downloaded from

http://docs.gimp.org/2.8/en/

- Ref6: GNU Image Manipulation Program User Manual, Version 2.8

TOOLS

- OpenOffice.org 4.0
    - o OpenOffice.org Writer – for Word Processing
    - o OpenOffice.org Calc – for Spreadsheets
    - o OpenOffice.org Base – for Database
    - o OpenOffice.org Impress – for Presentations
- GIMP 2.8 – for Graphic Design

DETAILED SYLLABUS

1. Introduction to Computer Application Software (1 hrs.)

Instructional Objectives

- Identify different types of computer software
- Distinguish the difference between System and Application software
- Demonstrate software installation
- Practice different files and folder handling techniques

Material /Sub Topics

1.1. Introduction to Computer Software
    1.1.1. System Software
    1.1.2. Application Software
1.2. Computer Software Installation
1.3. Files and Folders

2. Word Processing Applications (12 hrs.)

Instructional Objectives

- Explain word processing
- Distinguish different word processing applications
- Discover the different features of a word processing application
- Prepare different types of documents using available functionalities
- Use and apply macros
- Apply and work with advanced options

Material /Sub Topics

2.1. Introduction to Word Processing
    2.1.1. What is Word Processing
    2.1.2. Word Processing Applications
        2.1.2.1. History
        2.1.2.2. Examples
2.2. Get Started with Word Processing Applications
    2.2.1. Getting Familiarize with the working environment
    2.2.2. Basic File Operations
        2.2.2.1. Starting a New Document
        2.2.2.2. Opening an Existing Document
        2.2.2.3. Saving Documents
        2.2.2.4. Closing a Document
    2.2.3. Typing a simple document
    2.2.4. Working with Text and Symbols
        2.2.4.1. Text selecting Techniques
        2.2.4.2. Copy, Cut and Past techniques
        2.2.4.3. Finding and Replacing
        2.2.4.4. Inserting Special Characters
2.3. Document formatting
    2.3.1. Formatting Paragraphs & Characters
    2.3.2. Working with Numbered / Bulleted Lists
    2.3.3. Working with Fonts

      2.3.4.   Setting tab positions
      2.3.5.   Working with different page styles / Formatting pages
2.4. Working with Graphics and objects
      2.4.1.   Working with drawing tools
      2.4.2.   Inserting pictures, charts and other objects
2.5. Working with Tables
      2.5.1.   Basic table operations
      2.5.2.   Formatting tables
      2.5.3.   Converting techniques
          2.5.3.1.   Text to table
          2.5.3.2.   Table to text
          2.5.3.3.   Sorting and calculations
2.6. Creating a Booklet
      2.6.1.   Working with styles and templates
      2.6.2.   Working with section breaks
      2.6.3.   Adding a cover page
      2.6.4.   Adding a contents page
      2.6.5.   Working with bibliography
2.7. Mail Merge
      2.7.1.   Create a Mail merge data source
      2.7.2.   Creating and Editing Personalized Documents using Mail Merge
2.8. Document collaboration
      2.8.1.   Tracking Changes and commenting the document
      2.8.2.   Accepting and Rejecting changes
2.9. Working with Macros
      2.9.1.   Record Macros
      2.9.2.   Run Macros
2.10. Advanced Writer Options
      2.10.1. Working with security settings
      2.10.2. Changing language settings
      2.10.3. Key board shortcuts

3. Spreadsheet Applications (08 hrs)

Instructional Objectives

- Explain the use of spreadsheet applications
- Distinguish different spreadsheet applications
- Discover the different features of a spreadsheet application
- Apply different spreadsheet functions, formula abbreviations, to more efficiently manipulate spreadsheet data
- Prepare different types of spreadsheets using available functionalities
- Analyse and interpret data using advance data tools in spreadsheets
- Use and apply macros

Material /Sub Topics

3.1. Introduction to Spreadsheet Applications
      3.1.1. Importance of Spreadsheet Applications
      3.1.2. Different Spreadsheet Applications
3.2. Get Started with Spreadsheet Applications
      3.2.1. Getting Familiarise with the Working Environment
      3.2.2. Basic concepts in Spread sheet applications
      3.2.3. Basic File Operations

3.2.4. Navigation
3.2.5. Selection Technique
3.2.6. Working with Rows and Columns
3.2.7. Worksheet Viewing options
3.2.8. Working with Printing options
3.3. Editing and Formatting cell Entries
    3.3.1. Working with different cell entries
    3.3.2. Formatting cells
    3.3.3. Entering Hyperlinks
    3.3.4. Adding Comments
    3.3.5. Speeding up Data Entry
    3.3.6. Cell addressing
        3.3.6.1.   Using Absolute, Relative, and Mixed Cell References
        3.3.6.2.   Addressing by Name
        3.3.6.3.   Using References in Formulae and Functions
3.4. Working with different chart types
    3.4.1.   Creating Charts
    3.4.2.   Basic chart operations
    3.4.3.   Formatting a Chart
3.5. Working with different Formulae and Functions
    3.5.1.   Working with basic arithmetic operations
    3.5.2.   Combining different arithmetic operations
    3.5.3.   Working with different functions
    3.5.4.   Errors Associated with formulae and functions
3.6. Working with Conditional Logic
    3.6.1.   Working with different conditional logic functions
        3.6.1.1.   IF function
        3.6.1.2.   CountIf function
        3.6.1.3.   SumIf function
    3.6.2. Conditional Formatting
3.7. Data Processing using advance tools
    3.7.1.   Data Sorting
    3.7.2.   Data Filtering
    3.7.3.   Data Grouping
    3.7.4.   Pivot Table
    3.7.5. Goal Seek
3.8. Working with advanced options
    3.8.1.   Working with Macro
    3.8.2.   Adding and Changing Security levels

4. Database Applications (08 hrs)

Instructional Objectives

- Explain a database
- Distinguish different database applications
- Discover the different features of a database application
- Generate tables and relationships among tables
- Create and design queries using different options available in database applications
- Generate forms and reports
- Use other data sources to manipulate data

Material /Sub Topics

4.1. Introduction to Databases
    4.1.1. What is a Database
    4.1.2. Different Database Applications
4.2. Get Started with Database Applications
    4.2.1. Get Familiarize with the Working Environment
    4.2.2. Basic Database elements
4.3. Working with Database Tables
    4.3.1. Creating and Designing Tables using different options
    4.3.2. Modifying an Existing Table Structure
    4.3.3. Working with Fields, Data Types, Primary Key
    4.3.4. Working with Relationships
    4.3.5. Data Normalization basics
        4.3.5.1. What is Normalization
        4.3.5.2. Levels of Normalization
4.4. Working with Database Queries
    4.4.1. Creating and Designing Queries using different options
4.5. Working with Forms
    4.5.1. Creating and Designing Forms using different options
    4.5.2. Working with Sub Forms
4.6. Working with Reports
    4.6.1. Creating a Static Report
    4.6.2. Creating a Dynamic Report
    4.6.3. Modifying a Report
4.7. Working with Other Data Sources

5. Presentation Applications (05 hrs)

Instructional Objectives

- Explain the usefulness of presentation materials
- Distinguish different presentation applications
- Apply appropriate designs for multimedia presentations
- Design presentations using different elements and objects
- Deliver presentations
- Reproduce presentation materials into other formats

Material /Sub Topics

5.1. Introduction to Presentation Applications
    5.1.1. Importance of Electronic Presentation Materials
    5.1.2. Design Considerations for Multimedia Presentations
    5.1.3. Different Presentation Applications
5.2. Get Started with Presentation Applications
    5.2.1. Getting Familiarize with the Working Environment
    5.2.2. Basic file operations
    5.2.3. Working with different Views
5.3. Adding and Formatting Slides, Notes and Handouts
    5.3.1. Working with different Slide Layouts
    5.3.2. Inserting, Deleting and Hiding Slides
    5.3.3. Changing the Order of Slides
    5.3.4. Formatting Backgrounds
    5.3.5. Adding and Formatting Notes
    5.3.6. Creating Handouts
5.4. Working with Slide Masters, Styles and Templates

5.4.1. Introduction to each element
5.4.2. Working with Slide master
5.4.3. Modifying Slide Master
5.4.4. Working with Styles
5.4.5. Working with Templates
5.5. Adding and Formatting Pictures
5.5.1. Inserting and formatting pictures
5.5.2. Creating an Image map
5.6. Creating and Formatting Graphic Objects
5.6.1. Working with lines and shapes
5.6.2. Grouping and formatting techniques
5.6.3. Animating Images
5.6.4. Creating, Modifying and Formatting Font work
5.7. Inserting Charts and Other Objects
5.8. Managing and Delivering Presentations
5.8.1. Setup Presentation
5.8.2. Using Slide Transition Effects
5.8.3. Creating Interactions
5.8.4. Using Animation effects
5.8.5. Rehearse Timing
5.8.6. Adding Notes for the Presenter
5.8.7. Printing, emailing, exporting and saving slide shows

6. Graphic Design Applications (06 hrs)

Instructional Objectives

- Explain graphic design
- Distinguish different graphic design tools
- Discover the different tools and features of a graphic design tools
- Design and edit graphics using available tools
- Use different layer options to create and design graphics
- Enhance a photograph using available tools
- Prepare images to print and publish on the Web

Material /Sub Topics

6.1. Introduction to Graphic Design
6.1.1. What is Graphic Design
6.1.2. Different Graphic Design Applications
6.2. Get Started with Graphic Design Applications
6.2.1. Getting Familiarize with the Working Environment
6.2.2. Basic Design Concepts
6.3. Working with Basic Functions
6.3.1. Creating a New Image
6.3.2. Loading Files and Images
6.3.3. Saving
6.3.4. Cutting, Copying and Pasting Images
6.3.5. Undoing and Redoing
6.3.6. Zooming
6.4. Drawing and Painting
6.4.1. Working with Drawing and Painting Tools
6.4.2. Adding and Modifying Text
6.4.3. Creating Paths

6.5. Working with Selections
    6.5.1. Basic Selection Tools
    6.5.2. Creating and Using Selections
    6.5.3. Combining Selections
    6.5.4. Cropping Images
6.6. Working with Transformation tools
6.7. Working with Layers
    6.7.1. Introduction to Layers
    6.7.2. Appling Layer Properties
    6.7.3. Creating New Layers
    6.7.4. Deleting Layers
    6.7.5. Duplicating Layers
    6.7.6. Organizing Layers
6.8. Colour Spaces and Blending Modes
6.9. Working with Masks
6.10.Touch-up and Enhancements
    6.10.1. Improving Tonal Range
    6.10.2. Improving Colours
    6.10.3. Adjusting Sharpness
    6.10.4. Removing Unwanted Objects
 6.11. Printing Images
 6.12. Creating and Saving Web Animations