| | L | T | P | C |
|---|---|---|---|---|
| **I Year - II Semester** | **0** | **0** | **3** | **2** |

## ENGINEERING WORKSHOP & IT WORKSHOP

### ENGINEERING WORKSHOP:

**Course Objective:** To impart hands-on practice on basic engineering trades and skills.

Note: At least two exercises to be done from each trade.

**Trade:**

| | |
|---|---|
| **Carpentry** | 1. T-Lap Joint |
| | 2. Cross Lap Joint |
| | 3. Dovetail Joint |
| | 4. Mortise and Tennon Joint |
| **Fitting** | 1. Vee Fit |
| | 2. Square Fit |
| | 3. Half Round Fit |
| | 4. Dovetail Fit |
| **Black Smithy** | 1. Round rod to Square |
| | 2. S-Hook |
| | 3. Round Rod to Flat Ring |
| | 4. Round Rod to Square headed bolt |
| **House Wiring** | 1. Parallel / Series Connection of three bulbs |
| | 2. Stair Case wiring |
| | 3. Florescent Lamp Fitting |
| | 4. Measurement of Earth Resistance |
| **Tin Smithy** | 1. Taper Tray |
| | 2. Square Box without lid |
| | 3. Open Scoop |
| | 4. Funnel |

<u>**IT WORKSHOP:**</u>

**OBJECTIVES:**

- Understand the basic components and peripherals of a computer.
- To become familiar in configuring a system.
- Learn the usage of productivity tools.
- Acquire knowledge about the netiquette and cyber hygiene.
- Get hands on experience in trouble shooting a system?

**1. System Assembling, Disassembling and identification of Parts / Peripherals**

2. **Operating System Installation**-Install Operating Systems like Windows, Linux along with necessary Device

    Drivers.

**3. MS-Office / Open Office**

        a. **Word** - Formatting, Page Borders, Reviewing, Equations, symbols.
        b. **Spread Sheet** - organize data, usage of formula, graphs, charts.
        c. **Power point** - features of power point, guidelines for preparing an effective presentation.
        d. **Access**- creation of database, validate data.

4. **Network Configuration & Software Installation**-Configuring TCP/IP, proxy and firewall settings. Installing application software, system software & tools.

5. **Internet and World Wide Web**-Search Engines, Types of search engines, netiquette, cyber hygiene.

6. Trouble Shooting-Hardware trouble shooting, Software trouble shooting.

7. **MATLAB-** basic commands, subroutines, graph plotting.

8. **LATEX**-basic formatting, handling equations and images.

**OUTCOMES:**

- Common understanding of concepts, patterns of decentralization implementation in
  Africa †
- Identified opportunities for coordinated policy responses, capacity building and implementation of best practices †
- Identified instruments for improved decentralization to the local level †
- Identified strategies for overcoming constraints to effective decentralization and sustainable management at different levels

**TEXT BOOKS:**

1. Computer Hardware, Installation, Interfacing, Troubleshooting and Maintenance, K.L. James, Eastern Economy Edition.
2. Microsoft Office 2007: Introductory Concepts and Techniques, Windows XP Edition ByGary B. Shelly, Misty E. Vermaat and Thomas J. Cashman (2007, Paperback).
3. LATEX- User's Guide and Reference manual, Leslie Lamport, Pearson, LPE, 2/e.
4. Getting Started with MATLAB: A Quick Introduction for Scientists and ngineers, Rudraprathap, Oxford University Press, 2002.
5. Scott Mueller's Upgrading and Repairing PCs, 18/e, Scott. Mueller, QUE, Pearson, 2008
6. The Complete Computer upgrade and repair book, 3/e, Cheryl A Schmidt, Dreamtech.
7. Comdex Information Technology course tool kit Vikas Gupta, WILEY Dreamtech.
8. Introduction to Information Technology, ITL Education Solutions limited, Pearson Education.