**TEC1301 Workshop Practice (Core)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Period perWeek | ContactHour perSemester | WeightedTotal Mark | WeightedExam Mark | WeightedContinuous Assessment Mark | CreditUnits |
| LH | PH | TH | CH | WTM | WEM | WCM | CU |
| 00 | 300 | 00 | 30 | 100 | 0 | 100 | 2 |

**Rationale**

This course is designed to give the student practical exposure to setting up and repairing the hardware of a computer. The student is also introduced to practical work done outside Computer Engineering in preparation for multidisciplinary work. **Objectives**

The course aims to:

 Provide the student with basic vocational skills.

 Enable the student to appreciate the work of technicians hence prepare him or her for managerial positions.

 Develop student’s technical reporting and writing on practical work.

**Course Content**

***1. The Computer Workshop***

 PC assembly

 PC cleaning (blowing)

 Computer repairs and upgrade

 Hardware troubleshooting

 Installation of motherboard, sound card, video card, DVD burner, modem,

wireless network card, disk drives

 Installation and troubleshooting of printers, scanners, digital cameras

 Operating system installation

 BIOS configuration

 Network cable termination

 Data backup and recovery

***2. Manual Practice***

 Introduction to tools

 Marking off

 Measurement

 Fitting

***3. Machine Shop Processes***

 Turning

 Milling

 Grinding

 Drilling

***4. Fabrication Practice***

 Joining processes (screw fastening, riveting, welding, adhesive bonding)

 Fabrication of items

***5. Electrical House Wiring***

 Regulations

 Consumer circuits and wiring accessories

 Diagnosis and Repair of Electric appliances

***6. Repair of Electronic Equipment***

 Radios

 TVs

***7. Building Construction***

 Brickwork

 Concrete work

 Trusses and Plumbing

***8. Building Finishing Processes***

 painting,

 varnishing and

 decorating