ELE1301 VOCATION PRACTICE

Hours per Semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
0	0	180	45	100	60	40	3

Brief Course Description

At the end of first year students should be subjected to vocational training in which they attain practical skills in a workshop environment. Depending on the level of facilitation of the university this can be arranged either at the university or organized with the industries.

Course Objectives

- To help students acquire practical skills in a workshop environment

Detailed Course Content:

Safety Precautions: [6 Hours]

Use and care of tools and measuring instruments; Electric shock and its treatment, use of insulation meter, multi-meters wire-guage, phase tester and other electrician's tools; Cables: sizes, current rating, jointing and termination; Solders and soldering; Main features of domestic installations and appliances, e.g. D.B. system, fluorescent lamps, fans etc.; Necessity and methods of earthing, faults and remedies, in wiring circuits; Winding practice of machine coils

Elementary Machine Shop: [6 Hours]

Detailed study of centre lathe and accessories; Plain and taper turning, simple screw cutting; Cutting tools and their grinding; Introduction of shaper, slotter, planner, pillar and radial drilling machines.

Fitting Shop: [6 Hours]

Use and care of fitter's tools; Marking out of jobs; Practice in metal filing, sawing, drilling, Die sinking, tapping and reaming; Introduction and use of power jack saw and arbor press

Smithy Shop: [6 Hours]

The use and care of forging tools and blacksmith tools; Open hearth forge, practice in upsetting, drawing out spreading, bending, cutting and punching, hardening and tempering of small cutting tools; Brazing, electric and gas welding.

Electronics and Computer Shop: [9 Hours]

Windows XP, Office automation and use of internet; Software and hardware maintenance

Building Construction: [6 Hours]

Brick work, concrete work, trusses and plumbing; Building finishing processes; painting, varnishing and decorating.

Technology Incubation: [6 Hours]

Projects in designing technology based solutions to simple problems.

Learning Outcomes

On completing the course the student should be able to:

- ƒ Have attained the hands-on skills and working experience in the repair of roads, use of road materials in road and building works, handling and using of simple surveying tools, arranging of bricks in masonry work, mixing of cement/sand/water to make mortar, painting of old building surfaces, and others.
- ƒ Write a simple report reporting on what technical work he/she has been involved in.

Method of Teaching /Delivery

The course will be conducted through a lectures but mainly by practical work in workshops/laboratories and on sites.

Mode of Assessment

Assessment will be based on super-vision (Academic and Field supervisor), inspection and a technical report compiled by the student. The Academic and field supervisor assessments will carry a total of 70% and the final report will carry 30% of the final grade mark.

Proposed Staff

Mr. Ivan Rwendeire

Mr. John
Clifton Mr.
Fred Mukasa
Mr. Yunus
Luswa

Reading/Reference Materials

1. Written pamphlet with Guides on how to do Workshop Practice.
2. Previous reports by Students in Higher classes.