Course Code:	PHS 292
Course Title:	Physics Laboratory
Number of Unit:	2 Units
Course Duration Per Week:	3 Hours

COURSE DETAILS:

Course coordinator	Akinboro Festus
E-mail	akinbofg@unaab.edu.ng
Office Location	Room A307 COLNAS Main Building

COURSE CONTENT:

Experiments are chosen to cover the span of the 300 level courses (Optics, Electricity, Electronics, Atomic, Molecular, Nuclear and Low-temperature Physics). Special techniques to measure high temperatures and pressures and to achieve low temperature and high vacuum. Aspects which cannot be done experimentally will be treated theoretically.

COURSE REQUIREMENTS:

This is a compulsory course for all students in the Department of Physics. In view of this, students are expected to participate in all the practical classes and have minimum of 75% attendance..

READING LIST:

A.I.I. ETTE - An Introductory Practical Physics Mamal for University – Longman Nigeria.

F. Tayler – A laboratory manual of Physics, F. Edelon

Honddeo & Stoughton

LECTURE NOTES

Experiment: 1

Aim: Specific Heat Capacity of a liquid by the method of Cooling

Apparatus: A copper calorimeter, Thermometer. Stop Watch and the given liquid Bunsen burner.

Experiment: 2

Aim: Determination of Moment of inertia using a bifilar suspension

Apparatus: Two heavy stand and clamps, two threaded corks, meter rule, brass rod, stop watch, spirit level.

Experiment: 3

Aim: Determination of the Viscosity of a given Liquid by Stokes' Method

Apparatus: A tall jar, given liquid, small steel balls, stop watch and a scale.

Experiment: 4

Aim: Determination of the Specific Heat Capacity of a bad conductor

Apparatus: Copper calorimeter with stirrer (of thick copper wire), double-walled enclosure with cold water between the walls, thermometer reading 1/10th^{o}C, stop watch, steam heater, and a piece of rubber (e.g. large rubber stopper).

Experiment: 5

Aim: Refraction through a Triangular prism

Apparatus: Prism, drawing board, pins and protractor.

Experiment: 6

Aim: Verification of Ohm's Law

Apparatus: Battery, rheostat, Ammeter, Voltmeter, two (2) standard resistors in series and unknown resistor.