

Module Title:	Practical Skills for Sport Science and Health 2
Academic year:	2009 2010
Credit Value:	5.0
Pre- requisites:	1.6
Assessment:	<p>This course is to be assessed through continuous assessment comprising of the following assessable components;</p> <p>(a) 50% for a demonstration of technical competency and the completion of practical reports during the semester;</p> <p>(b) 20% for accurate and effective recording of experimental data in laboratory notebooks.</p> <p>(c) 30% for an end of semester <i>viva voce</i>;</p>
Aims	<p>This module will be based on practical laboratory experience. It is intended that this practical module will cover numerous laboratory based topics from the Principles of Human Anatomy, and Material Science theoretical modules. In all practicals, students will be encouraged to develop their ability to integrate the use of various laboratory techniques in order to solve a prescribed scientific problem. The concept of team-work, good laboratory practice and the need for both validation and statistical evaluation of results will be emphasized throughout. An underlying theme will also be the development of students' oral and written presentation skills.</p> <p>Continuous assessment will be carried out through oral examination (<i>viva voce</i>) at the end of this module. It is intended that this form of assessment will test the students' ability to think laterally in relation to available techniques when solving specific problems. The students understanding of practicals along with the concept of controls, process of validation and safety considerations will also be assessed.</p>
Module Content	<p>Human Anatomy.</p> <ul style="list-style-type: none"> • Microscopic and Macroscopic examination of tissue samples. • Tissue Sample Histological Examination. • The Structure and Movement of the Human Skeleton.

	<ul style="list-style-type: none"> • Identification of tagged structures and specimens. • Muscle function and control. • Brain Structure and Function <p>(b) Recreational Material Science</p> <ul style="list-style-type: none"> • Polymers - Structure, morphology, thermal and mechanical behaviour • Intelligent plastics - textile embedded materials • Ceramic Materials - structure; synthetic ceramic for bone augmentation. • Composites - High performance composites • Biomaterials - Implantable components for Sport and Health • Materials Characterization Techniques - Microscopy
<p>Intended Learning Outcomes:</p>	<p>Having completed this practical module the student will be able to;</p> <ol style="list-style-type: none"> 1. Work individually or as part of a team; 2. Integrate laboratory techniques in order to solve prescribed problems; 3. Apply enhanced oral and written presentation skills; 4. Demonstrate the use of analytical methods and use appropriate statistical methods of evaluation; 5. Apply efficient time management in carrying out laboratory experiments; 6. Work within the boundaries of good laboratory practice and procedure. 7. Apply the principles of laboratory Health and Safety legislation to each laboratory session in Human Anatomy and Material Science.