



Module Title:	Practical Course
Academic year:	2009 2010
Credit Value:	8
Pre- requisites:	None
Assessment:	Practical Assessment: 100%.
Aims	<p>It is intended that this practical subject will be organised as a series of mini-projects with a duration of two or more weeks and that the majority of these practicals will take place within the biopharmaceutical pilot plant facility. A series of practicals will be organised in which the students will be encouraged to develop their ability to integrate the a number of disciplines in order to produce, purify and analyse biopharmaceutical products. The concept of team-work will be emphasised. In addition, the practicals will be carried out according to cGMP, where possible, 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>A prescribed period of time will be set aside for students as a team to devise a suitable work strategy. This strategy will be discussed through the use of designated students acting as chairperson and speaker. The strategy will be critically evaluated by the students and amendments made where necessary. A specific period of time (10 to 12 hours per week) will be allocated to the implementation of the proposed strategy. Results will be collated and presented to the group as a whole. Designated students will again be required to act as chairperson and speaker. A written report will be submitted by each student. These reports will be evaluated on the basis of results obtained along with their understanding and the interpretation of the results. Other factors such as competency in the laboratory, time management and statistical evaluation, will also be assessed.</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>
<p>Module Content</p>	<p>Practical Course</p>
<p>Intended Learning Outcomes: (September 2007)</p>	<p>Having completed this practical module the student will:</p> <ol style="list-style-type: none"> 1. Be able to work individually or as part of a team; 2. Be able to integrate laboratory and processing techniques in order to solve prescribed problems; 3. Be able to optimise and trouble shoot a process where necessary. 4. Have enhanced oral and written presentation skills; 5. Be able to critically evaluate analytical methods and use appropriate statistical methods of evaluation; 6. Be able to execute efficient time management; 7. Be able to work within the boundaries of cGMP.