

<b>Module Title:</b>	Cell Technology (Elective)
<b>Academic year:</b>	2009 2010
<b>Credit Value:</b>	4
<b>Pre- requisites:</b>	None
<b>Assessment:</b>	Final written exam: 70%, Continuous Assessment: 30%.
<b>Aims</b>	To provide the student with knowledge of cell cultures as applicable to pharmaceutical science.
<b>Module Content</b>	<p>Basic principles of animal cell culture</p> <p>Cell Culture Media Cell Line Characterisation</p> <p>Scale-up of Cell Cultures</p> <p>Plant Cell Technology</p> <p>Bioassays</p> <p>Case Studies</p>
<b>Intended Learning Outcomes:</b> (September 2007)	<p>Having successfully completed this course, the student will:</p> <ol style="list-style-type: none"> <li>1. Be able to describe in detail the basic methods for the culture and maintenance of animal cell lines</li> <li>2. Critically understand the design and importance of a cell bank</li> <li>3. Be able to describe the principles and methods of cell line authentication from a technical and quality control perspective</li> <li>4. Have a demonstrable critical knowledge of animal cell culture media, their formulation and quality control</li> <li>5. Be able to describe different types of cell culture bioreactors, their principles of operation and spheres of application</li> </ol>

	<ol style="list-style-type: none"><li>6. Understand the principles, applications and quality control of simple cell-based bioassay systems</li><li>7. Have demonstrated a technical competence in the handling and manipulation of animal cell cultures</li><li>8. Be able to illustrate their knowledge of cell technology through reference to appropriate case studies</li><li>9. Be able to follow cell culture procedures to produce a protein product.</li></ol>
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