

## Mastering Laboratory Skills

### Draft Programme - Two Week Lab component

Day (9.30-5PM with breaks)	Week 1	Week 2
Monday	<p>Introduction</p> <p>Health and Safety Maintaining a safe working environment Calculations and solution preparation</p>	<p>PCR Optimisation Strategy Experimental Quality Control</p>
Tuesday	<p>Microscopy Tissue Culture Techniques Sample Storage and Preparation</p>	<p>ELISA:</p> <ol style="list-style-type: none"> <li>1. Generation of Standard curve + sample analysis</li> <li>2. Data analysis</li> </ol>
Wednesday	<p>Methods for nucleic acid and protein samples preparation</p> <ol style="list-style-type: none"> <li>1. DNA</li> <li>2. RNA</li> <li>3. Protein</li> </ol>	<p>Western Blot:</p> <ol style="list-style-type: none"> <li>1. Protein preparation</li> <li>2. Electrophoresis</li> <li>3. Membrane Transfer</li> <li>4. Primary antibody incubation</li> </ol>
Thursday	<p>Tissue Culture</p> <p>Flow cytometry:</p> <ol style="list-style-type: none"> <li>1. Extracellular and Intracellular sample preparation</li> <li>2. Data acquisition</li> <li>3. Data analysis</li> </ol>	<p>Western Blot:</p> <ol style="list-style-type: none"> <li>1. Secondary Antibody incubation</li> <li>2. Detection techniques</li> <li>3. Data analysis</li> </ol> <p>Exam Prep</p>
Friday	<p>PCR:</p> <ol style="list-style-type: none"> <li>1. Endpoint PCR</li> <li>2. Realtime Quantitative-PCR</li> <li>3. Data analysis</li> </ol>	<p>Data analysis Exam Course Evaluation</p>