

The Threshold Learning Outcomes for Chemistry

<p>TLO 1. Understanding the culture of chemistry</p> 	<p><i>Understand ways of scientific thinking by:</i></p>	<p>1.1 recognising the creative endeavour involved in acquiring knowledge, and the testable and contestable nature of the principles of chemistry</p> <p>1.2 recognising that chemistry plays an essential role in society and underpins many industrial, technological and medical advances</p> <p>1.3 understanding and being able to articulate aspects of the place and importance of chemistry in the local and global community</p>
<p>TLO 2. Scientific knowledge</p> 	<p><i>Exhibit depth and breadth of chemistry knowledge by:</i></p>	<p>2.1 demonstrating a knowledge of, and applying the principles and concepts of chemistry</p> <p>2.2 recognising that chemistry is a broad discipline that impacts on, and is influenced by, other scientific fields</p>
<p>TLO 3. Inquiry, problem solving and critical thinking</p> 	<p><i>Investigate and solve qualitative and quantitative problems in the chemical sciences by:</i></p>	<p>3.1 synthesising and evaluating information from a range of sources, including traditional and emerging information technologies and methods</p> <p>3.2 formulating hypotheses, proposals and predictions and designing and undertaking experiments</p> <p>3.3 applying recognised methods and appropriate practical techniques and tools, and being able to adapt these techniques when necessary</p> <p>3.4 collecting, recording and interpreting data and incorporating qualitative and quantitative evidence into scientifically defensible arguments</p> <p>3.5 demonstrating the cooperativity and effectiveness of working in a team environment</p>
<p>TLO 4. Communication</p> 	<p><i>Communicate chemical knowledge by:</i></p>	<p>4.1 presenting information, articulating arguments and conclusions, in a variety of modes, to diverse audiences, and for a range of purposes</p> <p>4.2 appropriately documenting the essential details of procedures taken, key observations, results and conclusions</p>
<p>TLO 5. Personal and social responsibility</p> 	<p><i>Take personal, professional and social responsibility by:</i></p>	<p>5.1 demonstrating a capacity for self-directed learning</p> <p>5.2 demonstrating a capacity for working responsibly and safely</p> <p>5.3 recognising the relevant and required ethical conduct and behaviour within which chemistry is practised</p>