

4. The Science Threshold Learning Outcomes 2023

Upon completion of a bachelor degree in science, graduates will:

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| Understanding science | <ol style="list-style-type: none">1. Demonstrate a coherent understanding of the nature of science by:<ol style="list-style-type: none">1.1. articulating the methods of science and explaining why current scientific knowledge is both contestable and testable by further inquiry1.2. explaining the ways in which science is a social endeavour that influences and is influenced by society1.3. evaluating how different traditions of thought contribute to the practice of science and acknowledging different ways of knowing, including Indigenous perspectives and knowledges. |
| Scientific knowledge | <ol style="list-style-type: none">2. Exhibit depth and breadth of scientific knowledge by:<ol style="list-style-type: none">2.1. demonstrating well-developed knowledge in at least one disciplinary area2.2. demonstrating knowledge in at least one other disciplinary area and applying an interdisciplinary perspective where appropriate. |
| Inquiry and problem-solving | <ol style="list-style-type: none">3. Critically analyse and solve scientific problems by:<ol style="list-style-type: none">3.1. gathering and synthesising information from a range of sources and critically evaluating scientific merit and reliability3.2. developing questions and designing investigations by selecting and applying practical and/or theoretical techniques, technologies or tools3.3. evaluating and applying quantitative and/or qualitative analytical methods appropriate to the relevant discipline area3.4. collecting, accurately recording and interpreting data3.5. drawing conclusions, evaluating evidence and constructing arguments, recognising the limitations and underlying assumptions of the approaches used. |
| Communication | <ol style="list-style-type: none">4. Be effective communicators of science by:<ol style="list-style-type: none">4.1. communicating scientific results, information, or arguments with a range of audiences, for a range of purposes, and using a variety of modes4.2. promoting the role and value of science in addressing current challenges facing local and global communities. |
| Personal and professional responsibility | <ol style="list-style-type: none">5. Be accountable for their own learning and scientific work by:<ol style="list-style-type: none">5.1. being self-directed and reflective learners, able to work independently and collaboratively towards achieving goals5.2. working effectively, responsibly and safely in diverse professional and cultural contexts, and respecting Indigenous voices when working with Indigenous people and issues5.3. demonstrating knowledge of the regulatory frameworks relevant to their disciplinary area and personally practising ethical conduct. |