<table>
<thead>
<tr>
<th><strong>Learning Goals – Freshwater and Marine Sciences</strong></th>
<th><strong>Master’s Level</strong></th>
<th><strong>Doctoral Level</strong></th>
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<tr>
<td><strong>Introduction</strong></td>
<td>All students enter the Freshwater and Marine Sciences program with at least a bachelor’s degree. The master’s program culminates in a research-based thesis. Graduates obtaining a master’s degree from the Graduate School are expected to achieve the following learning goals by the end of their degree work.</td>
<td>Regardless of whether an individual is awarded a master’s degree, the doctoral level learning goals are inclusive of the master’s level learning goals. The doctoral program in Freshwater and Marine Sciences culminates in a dissertation. Additionally, students receiving a doctoral degree from the Graduate School are expected to achieve the following learning goals by the end of their degree work.</td>
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</tbody>
</table>
| **Knowledge** | • Articulate, critique, or elaborate the theories, research methods, and approaches to inquiry or practice in the relevant area of freshwater and/or marine sciences.  
• Identify sources and assembles evidence pertaining to questions or challenges in the relevant research field(s).  
• Understands the historical or global context of freshwater and/or marine sciences. | • Articulate challenges, frontiers, and limits with respect to theory, knowledge or practice within the relevant area of freshwater and marine sciences.  
• Formulate ideas, concepts, designs, and/or techniques beyond the current boundaries of knowledge within the relevant research field(s). |
| **Skills** | • Select and/or use appropriate methodologies and practices.  
• Evaluate or synthesize information pertaining to questions or challenges in the students’ area of specialization within the freshwater and marine sciences.  
• Communicate clearly in ways appropriate to the field of study. | • Conduct research that makes a substantive contribution.  
• Demonstrate breadth within freshwater and marine sciences.  
• Communicate complex or ambiguous ideas in a clear and understandable manner.  
• Consider the implications of the discipline to broader societal concerns. |
| **Professional Conduct** | • Recognize and apply principles of ethical conduct. | • Foster ethical conduct and professional guidelines. |