Learning Goals – Freshwater and Marine Sciences

	Master's Level	Doctoral Level
Introduction	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.	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.
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.