Graduate Program Learning Outcomes in the School of Marine Sciences

Master of Science (M.S.)

Knowledge: Students will demonstrate knowledge and expertise in a discipline of marine science.

Communication: Students will be able to learn to effectively communicate their research to audiences both inside and outside of marine science fields.

Analysis: Students will demonstrate an understanding of experimental design and data analysis (quantitative and/or qualitative) and interpretation.

Synthesize: Students will be able to use their knowledge-base to critically evaluate the research of others, and synthesize their research into the broader context.

Generate: Students will be able to produce original contributions to scientific knowledge disseminated through publications, presentations, and/or other outlets.

Responsibility: Students will be able to demonstrate and understand the ethical practice of science, including accuracy, objectivity, competence, and the respectful treatment of others.

Doctor of Philosophy (Ph.D.)

Knowledge: Students will be able to demonstrate advanced knowledge and expertise in a discipline of marine science.

Independence: Students will be able to demonstrate the ability to independently generate research questions and hypotheses, implement scientific approaches to carry out research addressing these questions/hypotheses, and advance the field through the generation and dissemination of new knowledge.

Communication: Students will be able to learn to effectively communicate their research to audiences both inside and outside of marine science fields.

Analysis: Students will be able to demonstrate advanced competence in experimental design and data analysis (quantitative and/or qualitative) and interpretation.

Synthesize: Students will be able to use their advanced knowledge to critically evaluate the research of others, and synthesize their research into the broader context.
**Generate:** Students will be able to produce original contributions to scientific knowledge disseminated through publications, presentations, and/or other outlets.

**Responsibility:** Students will be able to demonstrate and understand the ethical practice of science, including accuracy, objectivity, competence, and the respectful treatment of others.