

## Graduate School Learning Goals

Approved by Graduate Board

May 7, 2020

### Current Graduate School Mission Statement:

*The mission of the Graduate School of the University of Maine is to produce **engaged scholars and professionals** by promoting excellence in all aspects of the graduate student experience. The School provides advanced education and professional training through innovative teaching, mentorship, research, and creative activity in established and emerging areas. This rigorous education prepares students to **contribute meaningfully** to the advancement of the state of Maine, the nation and the global community. (emphasis added)*

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The University of Maine Graduate School prepares engaged scholars and professionals to make meaningful contributions to their communities of practice: research consortia, clinical practices, studios, workplaces, classrooms, and political collectives. As graduate students are key agents in helping to sustain an environment supportive of learning through teaching, collaborative inquiry, mentoring or demonstration, they are critical ambassadors for public higher education during their coursework and after graduation.

During and after graduate training, accordingly, the Department of Molecular & Biomedical Science's doctoral, masters, and professional-certifications degree programs will enable students to:

#### ***Understand, interpret, shape, and augment the knowledge base by***

- Producing significant and original contributions to scientific knowledge through research within their respective field.
- Demonstrating competency in the ability to work well both independently and collaboratively and to conduct, analyze, and report research findings.
  - Students will be able to conduct, analyze and report findings from both independent and collaborative research.
- Demonstrating synthetic and integrative thinking when applying the scientific method from development of a hypothesis, design and implementation of experiments, data analysis, to formation of plausible conclusions that are relevant to the field.
  - Students will be able to synthesize previous research and integrate that knowledge into their own research design.
  - Students will be able to apply the scientific method from development of a hypothesis, design and implementation of experiments, data analysis, to formation of plausible conclusions that are relevant to the field.

- Students will be able to identify correct methods to address particular scientific questions, become proficient in use of appropriate technology to observe and accurately characterize molecular and cellular phenomena, and will stay abreast of methodological advances.
  - Students will be able to identify correct methods to address particular scientific questions.
  - Students will be able to use appropriate technology to observe and accurately characterize molecular and cellular phenomena.
  - Students will be able to describe methodological advances in the molecular and biomedical sciences.
- Taking responsibility for and communicating one's own professional development and career preparation
  - Students will be able to communicate and evaluate one's own professional development and career preparation.
- Engaging in professional development, via scientific conferences and communications, including staying abreast of the relevant scientific literature.

***Share disciplinary expertise openly, effectively, and accurately by***

- Effectively and accurately communicating both published and novel research findings in several ways, including but not limited to acquisition and maintenance of data records, written manuscripts, oral presentations, and multimedia presentations as they relate to the current knowledge of the field.
- Effectively mentoring others in their field of study.

***Demonstrate responsible and ethical practice by***

- Demonstrating honesty, accuracy, efficiency, and objectivity while upholding the highest standards of integrity and professionalism in the responsible conduct of research.
- Promoting and acting upon core research safety practices.
- Learning from and working respectfully with diverse cultural perspectives, backgrounds, knowledge-systems.
- Giving and acting upon productive feedback.