Attributes of an Ideal Graduate from Integrative Biology

The ideal graduate from the Department of Integrative Biology should possess:

- 1. A sound, general understanding of the conceptual (e.g., scientific method) and technical (e.g., measurement, accuracy) methods of science, and their limitations.
- 2. A strong appreciation of biology's contribution to and reliance on other natural and physical sciences.
- 3. A thorough understanding of and experience with scientific inquiry **within biology**, including appreciation of the breadth and interconnectedness of biological knowledge, uncertainty, the scientific method, experimental design, data collection, information management, and the relevant scientific literature within a chosen area of study.
- 4. A thorough foundation in biological principles, such as the fundamental features and processes of living things extending from atoms to biomes; genetics, and the process and history of evolution; and, the relationship between form and function.
- 5. A thorough understanding of the principles and skills relevant to a chosen program of study (i.e., a major).
- 6. A clear understanding that some major global challenges (e.g., agriculture, health, biodiversity, environmental quality) arise through the interdependencies between humans and other forms of life, and their solutions may have a biological basis.
- 7. The thinking and organizational skills needed for logic and reason, creativity and criticism, independence of thought, and effective oral, written, numerical, and graphical communication.
- 8. The awareness and social skills needed for leadership, teamwork, and respect for different perspectives.
- 9. A sense of ethical and aesthetic value and scientific integrity.
- 10. The combination of knowledge, skills, and attitude needed to be a self-reliant and self-motivated learner.