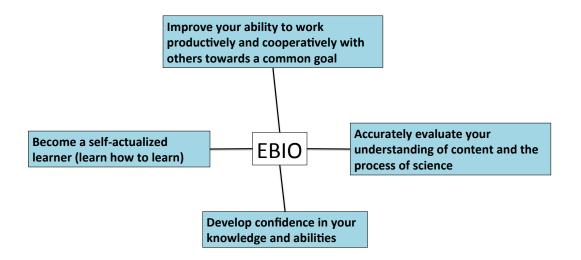
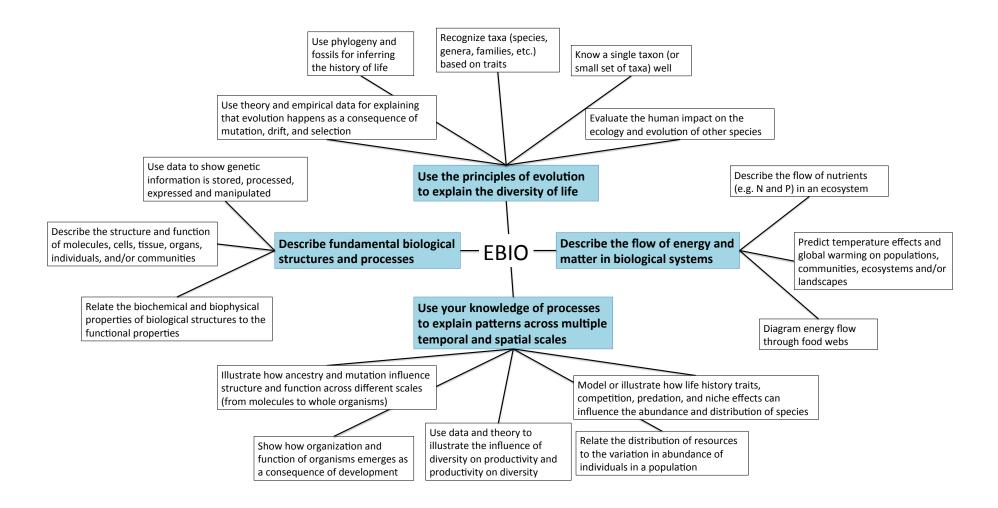
U. Of Colorado at Boulder Ecology and Evolutionary Biology Majors' Learning Goals version June 2015

Category	Central Learning Goals
Metacognitive	Improve your ability to work productively and cooperatively with others towards a common goal
	Become a self-actualized learner (learn how to learn)
	Accurately evaluate your understanding of content and the process of science
	Develop confidence in your knowledge and abilities
Content	Use the principles of evolution to explain the diversity of life
	Describe fundamental biological structures and processes
	Describe the flow of energy and matter in biological systems
	Use your knowledge of processes to explain patterns across multiple temporal and spatial scales
Process	Engage in observation-discovery and hypothesis-driven studies of biology
	Collaborate with people of varying knowledge and points of view towards common goals
	Effectively communicate scientific content, methods and thinking
	Decipher, assess the validity, and gauge the uncertainty of scientific claims

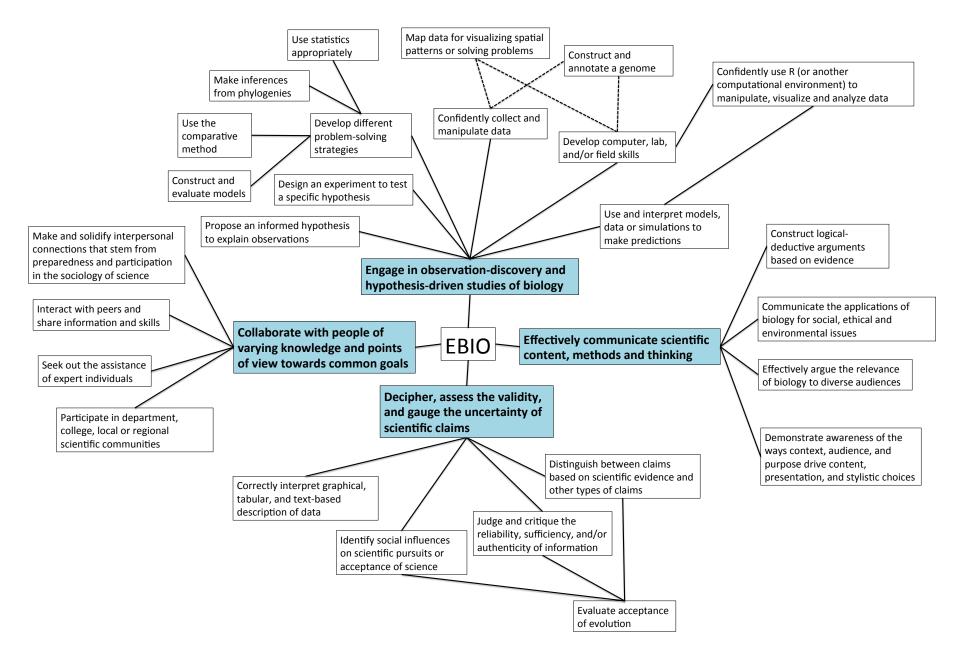
Metacognitive Learning Goals



Content Learning Goals



Process Skills Learning Goals



Process Skills Learning Goals Aligned with EBIO Courses and Instructors (initials) Use statistics Use GIS to map Gen Bio (BM, RS, DM, WA) appropriately vegetation and design Construct and Intro Quant (BM, AM) restoration projects annotate a genome Confidently use R (or another Make inferences Animal evo-devo (DM) computational environment) to from phylogenies manipulate, visualize and analyze data Evolution (AM, NK) Confidently collect and Develop computer, lab, Plant systematics (ET) Use the manipulate data () and/or field skills comparative Behavior (MB) method Develop different Modeling (SF) problem-solving strategies Genomics (NK) Construct and Use and interpret models, evaluate models Phylogenetics (SS) data or simulations to make predictions Scientific writing (HC) Design an experiment to test Construct logicala specific hypothesis Landscape ecology (CW) deductive arguments based on evidence Genetically Engineered Organisms (WA) Engage in observation-discovery and Community ecology (KD) hypothesis-driven studies of biology Climate change (RS) Communicate the applications of Collaborate with people of biology for social, ethical and varying knowledge and points environmental issues **Effectively communicate scientific** of view towards common goals **EBIO** content, methods and thinking share information and skills Effectively argue the relevance of biology to diverse audiences Become a self-actualized Seek out the assistance Decipher, assess the validity, learner (learn how to learn) of expert individuals and gauge the uncertainty of scientific claims Participate in department, Demonstrate awareness of the college, local or regional ways context, audience, and scientific communities Distinguish between claims purpose drive content, based on scientific evidence and presentation, and stylistic choices Correctly interpret graphical, other types of claims (tabular, and text-based description of data Judge and critique the reliability and Identify social influences authenticity of_ on scientific pursuits or (information acceptance of science Evaluate acceptance

of evolution