

Outcome	My Class: GEO 102 (Evolution and Extinction of the Dinosaurs)			
Knowledge Outcome: STEM Disciplines (link to full rubric)	Rubric Element	Specific Course Outcome	What student work will be used to assess achievement of the outcome? (Assessment)	How will this course provide practice for students to achieve the student outcomes? (Student practice)
<p><u>Full Coverage:</u> address any five elements.</p> <p><u>Partial Coverage:</u> address any three elements.</p>	<p>Identifies facts, vocabulary, definitions, terms, concepts, people</p>	<p>Familiarity with the logic and language of the natural sciences (in particular, a historical science), including basic principles of comparative anatomy, functional morphology, physiology and Earth history</p>	<p>Examination – short answer, fill-in-the-blank, T/F (25% for the T/F; 75% for the explanation of the T or F response); identifications</p>	<p>Lecture and assigned readings</p>
	<p>Recognizes concepts or tools relevant for application to a task</p>	<p>Basic facility with phylogenetic systematic methods in a practical, “hands-on” way; students will be conversant with and experienced in the philosophy and method</p>	<p>Examination; students must complete or construct cladograms on each exam</p>	<p>Short practice problems, worked on by informal groups of students during lecture time</p>
	<p>Asks questions or frames hypotheses relevant to the task</p>	<p>Understanding science to be the generation of testable hypotheses; Emerging ability to construct and evaluate testable hypothesis.</p>	<p>Examination as above; also, two short, written assignments</p>	<p>Written assignments in context of lecture introduction and assigned readings</p>
	<p>Collects information relevant to address the task – e.g. data; literature sources</p>	<p>An emerging understanding of vertebrate evolutionary history with special reference to Dinosauria, based upon an introduction to comparative anatomy, functional morphology, physiology and Earth history</p>	<p>Examination – short answer, fill-in-the-blank, T/F (as above); anatomical and species identifications</p>	<p>Lecture and assigned readings</p>
	<p>Analyzes: <u>Deconstructs</u> An argument by indicating claims and/or evidence and <u>contextualizes</u> evidence within theoretical framework</p>	<p>Emerging ability to logically dissect explanatory hypotheses for past events; critically assess of the quality and significance of supporting data. Examples include hypotheses of dinosaur extinction, warm-bloodedness, and behavioral interpretations based upon particular anatomical features or population inferences.</p>	<p>Examination as above; also, two short, written assignments</p>	<p>Lecture and assigned readings; written assignments</p>
	<p>Analyzes: <u>Evaluates</u> support for claims and <u>justifies</u> conclusions</p>	<p>Emerging ability to explore the explanatory powers of hypotheses (above) in light of the data.</p>		