

Mission

The Master of Arts in Sustainability is designed to prepare students to lead change initiatives designed to enhance environmental performance, convert economic development into sustainable development, and increase environmental sustainability in all human systems. Students learn to simultaneously search for the underlying causes of global environmental, economic, and social problems while also learning to design and lead initiatives that produce sustainable outcomes for the current and future generations.

Academic year 2025

Master of Arts in Sustainability Learning Outcomes

Systems Thinking MET

Students will identify relationships and interdependencies within complex human-natural systems and analyze those connections through the use of systems thinking diagramming and other holistic tools.

MEASURES	RESULTS	ACTIONS										
Assesment of professional paper Students complete a 50-75 page professional paper in SUST 7200 that represents putting their research proposal from 7100 into action and is based on empirical evidence. Each faculty member reviewed all of the artifacts. The individual artifacts where then discussed and debated in terms of appropriate assessment based on the rubric shown below. The goal was to develop a consensus for each artifact and, once achieved, apply this to scoring the artifact. Direct - Assignment <i>Professional Paper II Capstone: SUST 7200</i> Target Student results will average a 3 or higher on the rubric for assessment of system thinking. Ideally 100% of students would score a 3 or higher. SUST Capstone Rubric.docx	MET Assesment of professional paper ■ Exceeded ■ Met ■ Approached  <table><tr><td>Exceeded:</td><td>25%</td></tr><tr><td>Met:</td><td>50%</td></tr><tr><td>Approached:</td><td>25%</td></tr><tr><td>Met Total:</td><td>75%</td></tr><tr><td>Not Met Total:</td><td>25%</td></tr></table> Analysis We will save extensive analysis for next year when we will have two years worth of data but students met the target of an average of at least 3 on the rubric with an average score of 3.12	Exceeded:	25%	Met:	50%	Approached:	25%	Met Total:	75%	Not Met Total:	25%	<i>No actions have been added.</i>
Exceeded:	25%											
Met:	50%											
Approached:	25%											
Met Total:	75%											
Not Met Total:	25%											
Research proposal with annotated bibliography The assignment chosen for this assessment involved a three-phase process starting with an annotated bibliography (forty-five individually annotated citations) that was then developed into a literature review, and finally this was inserted into a short research proposal. The proposal was also presented orally and visually. Both the written proposal and the visual presentation were used in the artifact assessment. This assignment was deemed appropriate for an assessment of the systems thinking PLO because it is designed to help students develop a systems approach to finding, organizing, and interpreting a body of literature(s) to serve as a foundation for a research proposal. The systems component is both derived from the search for literature and, overtime, organizing this into themes and	MET Summary ARTIFACT OVERALL SCORING ASSESSMENT As regards the first competency for the Systems Thinking PLO—"Students will be able to identify relationships and interdependencies within complex human-natural system"—the following was achieved: 4. Student work is highly developed and meets the objective 0 0% 3. Student work is developed and meets the objective 4 57% 2. Student work is emerging and nearly meeting the objective 3 43% 1. Student work is in initial form of meeting the objective 0 0% 0. Not present 0 0%	Revise Measurement / Assessment IN PROGRESS Despite scores that meet the target competency, there are ways that the systems thinking aspect of SUST 6005 can be improved. An assessment of the rubrics used for the course and the assignment handout noted that in neither case is systems thinking overtly noted as a key learning outcome. While all valid and important aspects of the overall assessment, there is no clearly presented focus on systems thinking. This leads to an obvious action of updating this assessment rubric to include clearly indicated systems thinking elements. In fact, in the entirety of the assignment handout systems thinking needs to be more clearly emphasized as a key learning outcome. This outcome is delivered implicitly but needs to be done so explicitly. This contrasts with the requirements for the										

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also recognizing the development of knowledge over time. The systems component is further emphasized in their visual presentation through the construction of conceptual framework, which is a great example of demonstrating systems thinking through diagrams and models to gain a deeper and more dimensional perspective about an area of knowledge. Overall, the goal is to teach students to perceive areas of knowledge as holistically interconnected sets of knowledge. Direct - Assignment <i>Research Methods: SUST 6005</i> Target All students will reach a 2 or higher on each criterion on the rubric and the average will be above 3. Rubric and target for 24-25 MA SUST assessment.pdf	As regards the second competency for the Systems Thinking PLO— Students will demonstrate the ability to make connections through use of systems thinking diagramming and other holistic tools—the following was achieved: 4. Student work is highly developed and meets the objective 0 0% 3. Student work is developed and meets the objective 5 71% 2. Student work is emerging and nearly meeting the objective 2 29% 1. Student work is in initial form of meeting the objective 0 0% 0. Not present 0 0% F24_PLO_SystemsThinking_SUST6005.pdf Analysis The MA SUST systems thinking PLO was broken into two component parts for the assessment with each of the two parts assessed on a 1-4 points scale (see above). The results meet the target competency in that all students achieved an emerging or developed score in both categories. In the first category, the split is closer to fifty/fifty, and this is not too surprising since this is assessed through the written portion of the examined artifacts (i.e., the research proposal). In their first semester, student academic writing is still a “work in progress” and this results in a wide range of demonstrated graduate academic writing levels. It can be argued that textually demonstrating holistic and interconnected thinking through an examination of academic literature is quite challenging for emerging scholars and, thus, nearly half achieved the lower emerging scores. However, in the artifacts represented by the presentations well over two thirds of the students were assessed in the developing category. The main tool assessed was the required literature and research conceptual frameworks. These frameworks are inherently systems thinking oriented and challenge students to visually demonstrate holistic and interconnected elements in their chosen literature(s) and proposal. These models are developed collaboratively over the course of the semester using white board sessions and one-on-one and group discussion and encouragement.	final presentation. The handout mentions employing a conceptual framework, which is emphasized throughout the course of the semester, and has some obvious connection to systems thinking. Here too, however, this can be done more explicitly. More discussion is provided in the pdf of the results
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