NECHE Inventory of Educational Effectiveness Indicators
Undergraduate Programs
(Department of Environment, Society, and Sustainability – 2022-2023)

Degree Granting Program Name	(1) List ONLY the program learning objective(s) assessed during the current reporting period	(2) For each learning objective listed in column (1), other than GPA, what data/ evidence was used to determine that graduates have achieved the stated objectives? (e.g., capstone assignment, portfolio review, licensure examination)	(3) What were the results/outcomes/findings/conclusion(s) of the assessment? Explain results/findings/conclusions for each program learning objective listed in column (1)	(4) Who interprets the evidence? Describe the process (e.g. annually by the curriculum committee).	(5) What changes/improvements have been made as a result of using the data/evidence (3)? Link discussion in this column with a learning objective (1) and the results of assessing that objective (3)	(6) Date of most recent program review
Environment, Society & Sustainability	<u>PLO 2 – Field & research methods</u> Appropriately use a variety of tools and resources to independently integrate laboratory, field, and literature data to support a thesis. <u>PLO 4 – Critical Thinking</u> Think critically about environmental, societal, and sustainability challenges at local, national, regional, and global spatial scales.	<u>PLO2 – ENVS 101 – Introduction to Environmental Science and Policy</u> • Term paper <u>PLO4 – ENVS 451 – Environmental Science and Policy Capstone – Part 1</u> • Capstone research proposal	<u>PLO2 – ENVS 101 – Introduction to Environmental Science and Policy</u> The Value rubric for critical thinking was used to assess artifacts from ENVS 101. The rubric is presented in Appendix A. This rubric contains five sections including: 1. Explanation of Issues 2. Evidence 3. Influence of Context & Assumptions 4. Student's Position 5. Conclusions & Related Outcomes The assessment results for each section are presented in tabular format in Appendix A. The assessed values presented in the tables should be interpreted as: 0 – Failed to meet minimum standards 1 – Benchmark 2 – Milestone 3 – Milestone 4 - Capstone	The assessment committee of the Department of Environment, Society & Sustainability collected the assessment artifacts from ENVS 101 and ENVS 451 during the 2022-2023 academic year. During the course of Summer 2023 the artifacts were independently assessed by members of the assessment committee using the appropriate Value rubric. The results were then compiled and	Members of both the Department of Environment, Society & Sustainability and the department's assessment committee would like to develop prompts/artifacts that could be collected for an individual program learning objective at the appropriate 100-level class, 200 – level class, 300 – level class, and 400 – level class. This will, in part, redress issues with cognitive leaps in the curriculum.	The Department of Environment, Society & Sustainability was formed by merging the Department of Geography and the Department of Physics and Earth Sciences at the beginning of the Fall 2021. The new department/program has not yet undergone a program review.

			<u>PLO4 – ENVS 451 – Environmental Science and Policy Capstone – Part 1</u> The Value rubric for inquiry and analysis was used to assess artifacts from ENVS 451. The rubric is presented in Appendix B. The rubric contains six sections including: 1. Topic selection 2. Existing Knowledge, Research, and/or Views 3. Design Process 4. Analysis 5. Conclusions 6. Limitations and Implications The assessment results for each section are presented in tabular format in Appendix B. The assessed values presented in the tables should be interpreted as: 0 – Failed to meet minimum standards 1 – Benchmark 2 – Milestone 3 – Milestone 4 - Capstone	tables illustrating the results were created. The assessment results were presented to the entire Department of Environment, Society, and Sustainability at the September department meeting.		

FRAMINGHAM STATE UNIVERSITY

NECHE Indicators of Educational Effectiveness

If you have any questions or concerns about the form, please contact Jena Shepard at jshepard1@framingham.edu or 508-215-5884.

Program Assessment

First Name: *	George	Last Name: *	Bentley
Banner ID: *	300931774	Email: *	gbentley@framingham.edu

Please select the reporting period this assessment/accreditation work was completed:

* 2022-2023

Please select the type of program you completed assessment/accreditation work for this reporting period:
Note: If changing your initial selection, please refresh this page prior to making a new selection.

* Undergraduate Program

Please select the program you completed assessment for during this reporting period:

* Environmental, Society, and Sustainability

Please select the option that best describes the assessment work completed during this reporting period.

* ○ Only assessed program learning objective(s)
○ Only completed other assessment activities (ex. assessment plan, rubrics etc.)
◉ Assessed program learning objective(s) and completed other assessment activities (ex. assessment plan, rubrics etc.)
○ Did not undertake program assessment work

Program Learning Objectives Assessed

List the first program learning objective assessed during this reporting period:

PLO 2 – Field & research methods. Appropriately use a variety of tools and resources to independently integrate laboratory, fie

For the first program learning objective assessed, other than GPA, what data/evidence was used to assess student learning? (e.g. capstone assignment, portfolio review, licensure examination)

ENVS 101– Introduction to Environmental Science and Policy
• Term paper

For the first program learning objective assessed what were the results/outcomes/findings/conclusion(s)?

ENVS 101 – Introduction to Environmental Science and Policy
The Value rubric for critical thinking was used to assess artifacts from ENVS 101. The rubric is presented in Appendix A. This rubric contains five sections including:
1. Explanation of Issues
2. Evidence
3. Influence of Context & Assumptions
4. Student's Position
5. Conclusions & Related Outcomes

Attach any additional documents (data or survey summaries, charts, graphs etc.) that support your

results/findings/conclusions (optional):

NECHE Inventory of Educational Effectiveness Indicators - ESS - Final.pdf

For the first program learning objective assessed what changes/improvements have been made as a result of using the data/evidence?

Members of both the Department of Environment, Society & Sustainability and the department's assessment committee would like to develop prompts/artifacts that could be collected for an individual program learning objective at the appropriate 100-level class, 200 – level class, 300 – level class, and 400 – level class. This will, in part, redress issues with cognitive leaps in the curriculum.

Did you assess any additional program learning objectives during this reporting period?

* (•) Yes
( ) No

List the second program learning objective assessed during this reporting period:

PLO 4 – Critical Thinking. Think critically about environmental, societal, and sustainability challenges at local, national, regional,

For the second program learning objective assessed, other than GPA, what data/evidence was used to assess student learning? (e.g. capstone assignment, portfolio review, licensure examination)

ENVS 451– Environmental Science and Policy Capstone – Part 1
• Capstone research proposal

For the second program learning objective assessed what were the results/outcomes/findings/conclusion(s)?

ENVS 451 – Environmental Science and Policy Capstone – Part 1
The Value rubric for inquiry and analysis was used to assess artifacts from ENVS 451. The rubric is presented in Appendix B. The rubric contains six sections including:
1. Topic selection
2. Existing Knowledge, Research, and/or Views
3. Design Process
4. Analysis
5. Conclusions
6. Limitations and Implications
The assessment results for each section are presented in tabular format in Appendix B. The assessed values presented in the tables should be interpreted as:
0 – Failed to meet minimum standards
1 – Benchmark
2 – Milestone
3 – Milestone
4 - Capstone

Attach any additional documents (data or survey summaries, charts, graphs etc.) that support your results/findings/conclusions (optional):

NECHE Inventory of Educational Effectiveness Indicators - ESS - Final.pdf

For the second program learning objective assessed what changes/improvements have been made as a result of using the data/evidence?

Members of both the Department of Environment, Society & Sustainability and the department's assessment committee would like to develop prompts/artifacts that could be collected for an individual program learning objective at the appropriate 100-level class, 200 – level class, 300 – level class, and 400 – level class. This will, in part, redress issues with cognitive leaps in the curriculum.

Who interprets the results/findings of the assessment? Describe the process (e.g. annually by the curriculum committee).

The assessment committee of the Department of Environment, Society & Sustainability collected the assessment artifacts from ENVS 101 and ENVS 451 during the 2022-2023 academic year. During the course of Summer 2023 the artifacts were independently assessed by members of the assessment committee using the appropriate Value rubric. The results were then compiled and tables illustrating the results were created. The assessment results were presented to the entire Department of Environment, Society, and
Sustainability at the September department meeting.

Assessment Activities

Please list the assessment activities (other than the assessment of program learning objectives) completed during this reporting period (assessment plans, rubrics etc.).

* Assessment plans
Rubrics

Please attach the related documents produced as a result of the activities listed in above (mandatory if funding is requested for this work):

Funding

Are you seeking funding for assessment work completed in this report?
You can request a maximum of $2,000 for this reporting period.

* ○ Yes
◉ No

Program Information

Enter the year of the most recent program review. If the program is new, enter the upcoming program review year or enter TBD (to be determined).

* TBD

Insert the URL of the web page where Program Learning Objectives for this program are published:
NECHE requires this as part of being transparent to stakeholders.

* N/A

Signatures

...3436353535

George Bentley
Submitter Signature

11/15/2023
Date

Office of Institutional Assessment

Office of Institutional Assessment Only

Institutional Assessment Signature

Date

NECHE Inventory of Educational Effectiveness Indicators
Undergraduate Programs
(Department of Environment, Society, and Sustainability – 2022-2023)

Appendix A

CRITICAL THINKING VALUE RUBRIC (PLO4)

For more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 16 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

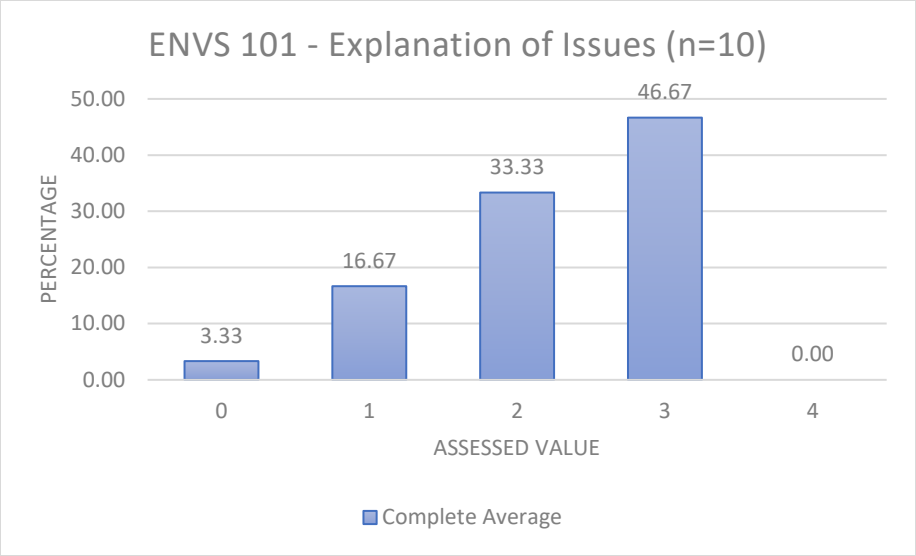
- **Ambiguity:** Information that may be interpreted in more than one way.
- **Assumptions:** Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof" (Dictionary.com, 2009, para. 1; www.dictionary.reference.com/browse/assumptions).
- **Context:** The historical, ethical. political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- **Literal meaning:** Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.
- **Metaphor:** Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

CRITICAL THINKING VALUE RUBRIC (PLO4)
For more information, please contact value@aacu.org

Artifact – ENVS 101 Introduction to Environmental Science and Policy – Term Paper

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Explanation of Issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation / evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of Context and Assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's Position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/ hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated but is simplistic and obvious.
Conclusions and Related Outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.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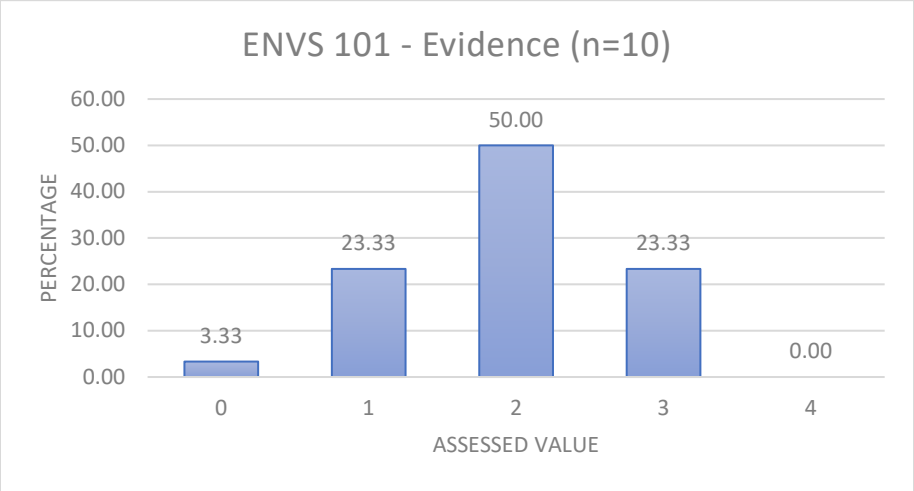
4
ASSESSED VALUE
Complete Average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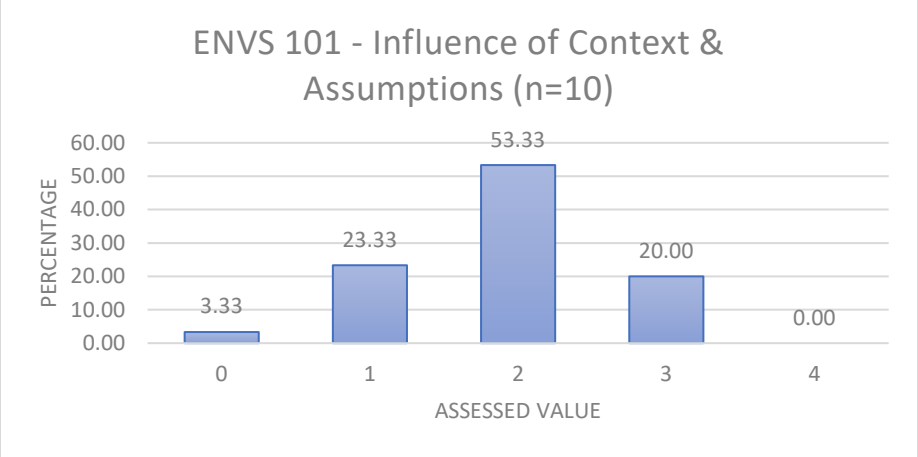
ASSESSED VALUE


ENVS 101 - Influence of Context & Assumptions (n=10)
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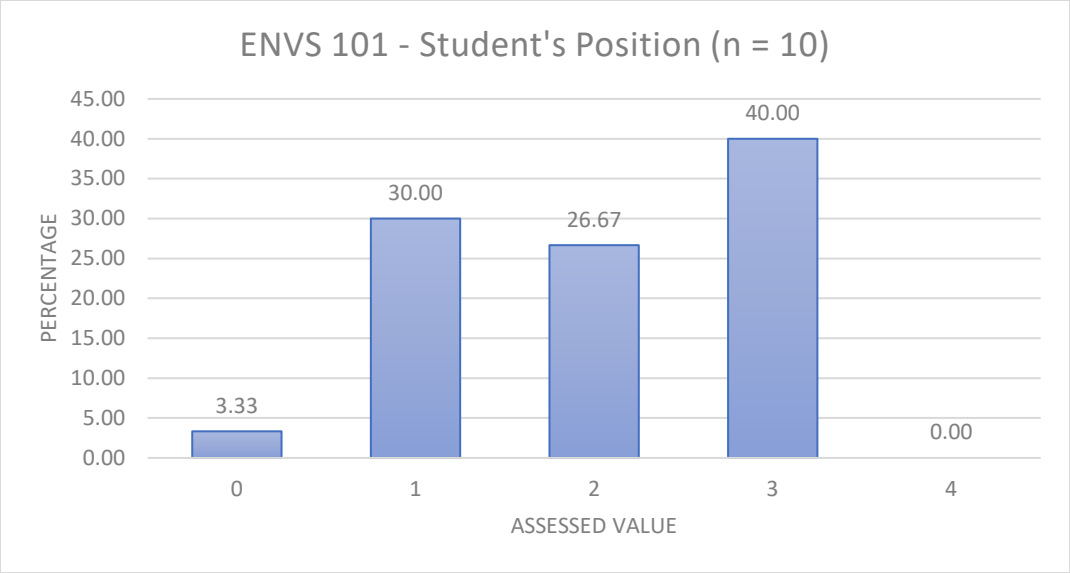
ASSESSED VALUE


ENVS 101 - Student's Position (n = 10)
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15.00
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30.00
26.67
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0.00
0
1
2
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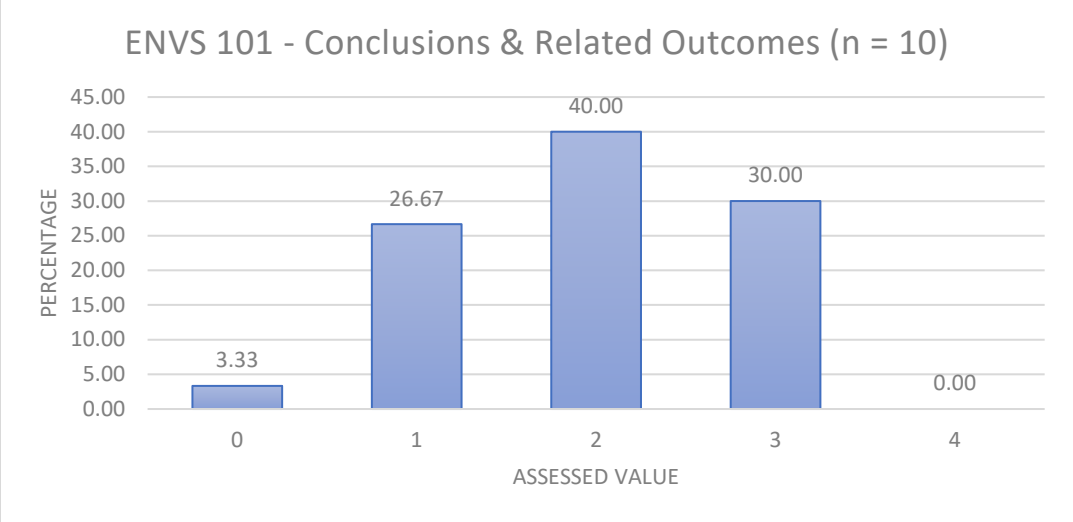
ASSESSED VALUE


ENVS 101 - Conclusions & Related Outcomes (n = 10)
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1
2
3
4
ASSESSED VALUE

NECHE Inventory of Educational Effectiveness Indicators
Undergraduate Programs
(Department of Environment, Society, and Sustainability – 2022-2023)

Appendix B

INQUIRY AND ANALYSIS VALUE RUBRIC (PLO2)

For more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 16 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

Definition

Inquiry is a systematic process of exploring issues, objects, or works through the collection and analysis of evidence that results in informed conclusions or judgments. Analysis is the process of breaking complex topics or issues into parts to gain a better understanding of them.

Framing Language

This rubric is designed for use in a wide variety of disciplines. Since the terminology and process of inquiry are discipline-specific, an effort has been made to use broad language which reflects multiple approaches and assignments while addressing the fundamental elements of sound inquiry and analysis (including topic selection, existing, knowledge, design, analysis, etc.). The rubric language assumes that the inquiry and analysis process carried out by the student is appropriate for the discipline required. For example, if analysis using statistical methods is appropriate for the discipline, then a student would be expected to use an appropriate statistical methodology for that analysis. If a student does not use a discipline-appropriate process for any criterion, that work should receive a performance rating of "1" or "0" for that criterion.

In addition, this rubric addresses the **products** of analysis and inquiry, not the **processes** themselves. The complexity of inquiry and analysis tasks is determined in part by how much information or guidance is provided to a student and how much the student constructs. The more the student constructs, the more complex the inquiry process. For this reason, while the rubric can be used if the assignments or purposes for work are unknown, it will work most effectively when those are known. Finally, faculty are encouraged to adapt the essence and language of each rubric criterion to the disciplinary or interdisciplinary context to which it is applied.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

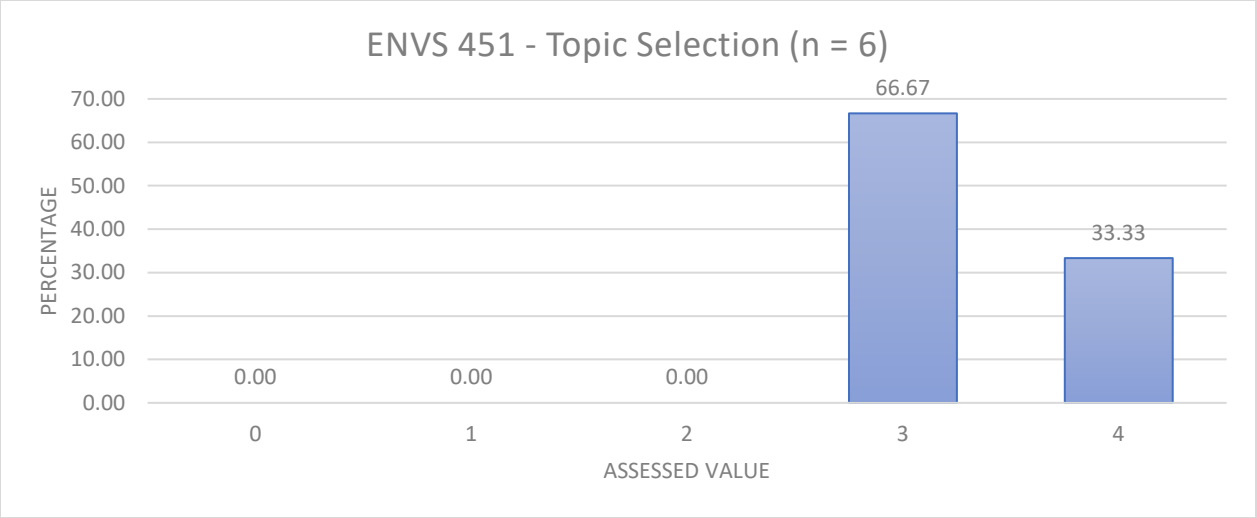
- **Conclusions:** A synthesis of key findings drawn from research/evidence.
- **Limitations:** Critique of the process or evidence.
- **Implications:** How inquiry results apply to a larger context or the real world.

INQUIRY AND ANALYSIS VALUE RUBRIC (PLO2)
For more information, please contact value@aacu.org

Artifact – ENVS 451 Environmental Science and Policy Capstone Part 1 – Research Proposal

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Topic Selection	Identifies a creative, focused, and manageable topic that addresses potentially significant yet previously less-explored aspects of the topic.	Identifies a focused and manageable/doable topic that appropriately addresses relevant aspects of the topic.	Identifies a topic that, while manageable/doable, is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a topic that is far too general and wide-ranging as to be manageable and doable.
Existing Knowledge, Research, and/or Views	Synthesizes in-depth information from relevant sources representing various points of view/approaches.	Presents in-depth information from relevant sources representing various points of view/approaches.	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited points of view/approaches.
Design Process	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology or theoretical frameworks may be synthesized from across disciplines or from relevant subdisciplines.	Critical elements of the methodology or theoretical framework are appropriately developed; however, more subtle elements are ignored or unaccounted for.	Critical elements of the methodology or theoretical framework are missing, incorrectly developed, or unfocused.	Inquiry design demonstrates a misunderstanding of the methodology or theoretical framework.
Analysis	Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus.	Organizes evidence to reveal important patterns, differences, or similarities related to focus.	Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities.	Lists evidence, but it is not organized and/or is unrelated to focus.
Conclusions	States a conclusion that is a logical extrapolation from the inquiry findings.	States a conclusion focused solely on the inquiry findings. The conclusion arises specifically from and responds specifically to the inquiry findings.	States a general conclusion that, because it is so general, also applies beyond the scope of the inquiry findings.	States an ambiguous, illogical, or unsupportable conclusion from inquiry findings.
Limitations and Implications	Insightfully discusses in detail relevant and supported limitations and implications.	Discusses relevant and supported limitations and implications.	Presents relevant and supported limitations and implications.	Presents limitations and implications, but they are possibly irrelevant and unsupported.


ENVS 451 - Topic Selection (n = 6)
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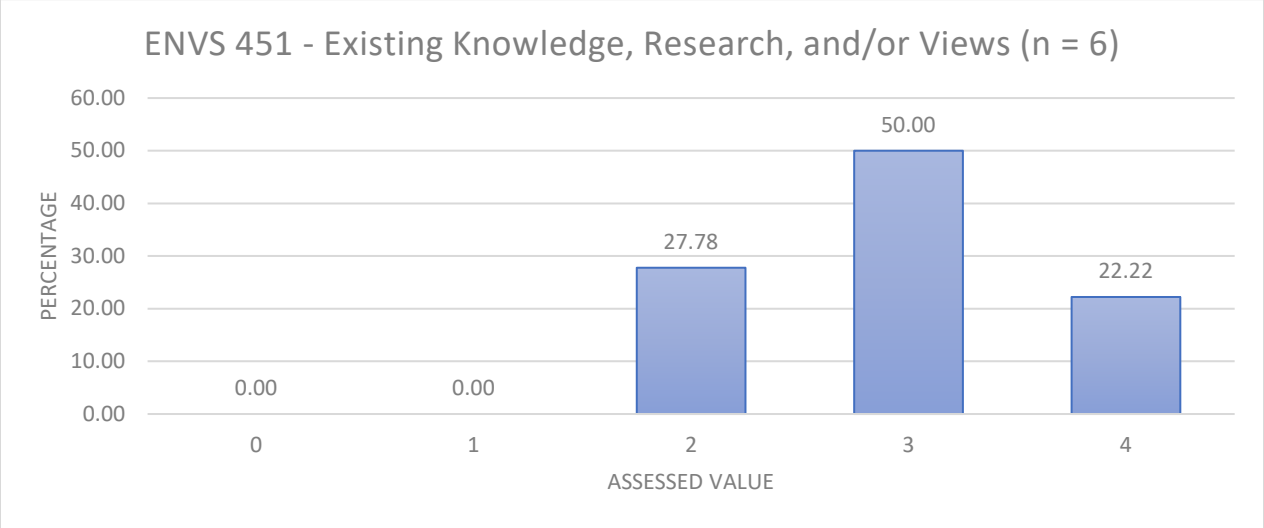
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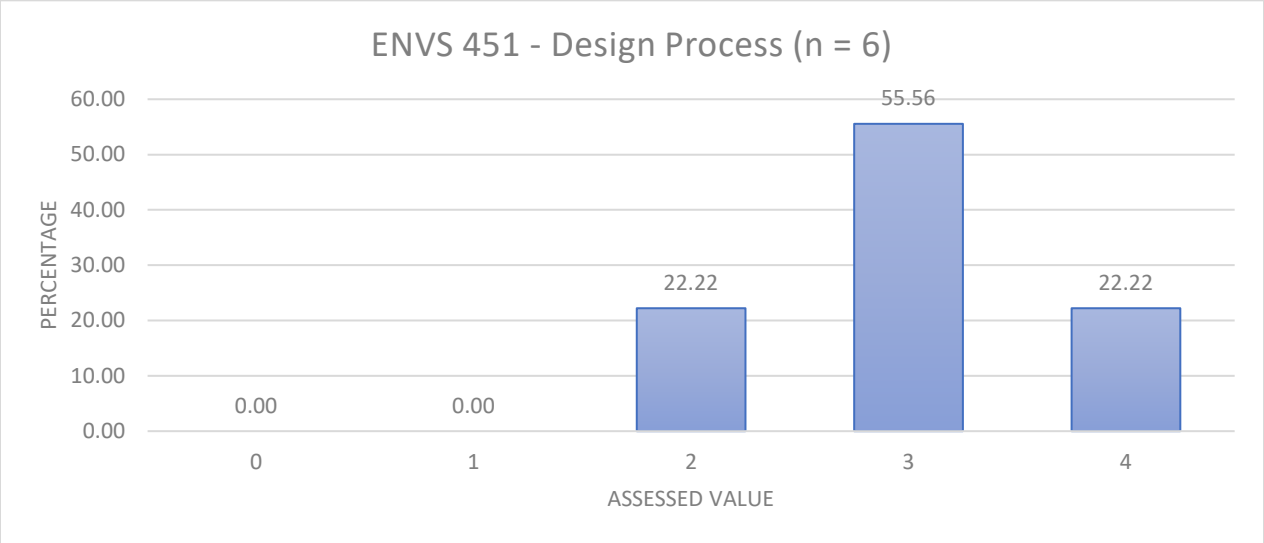
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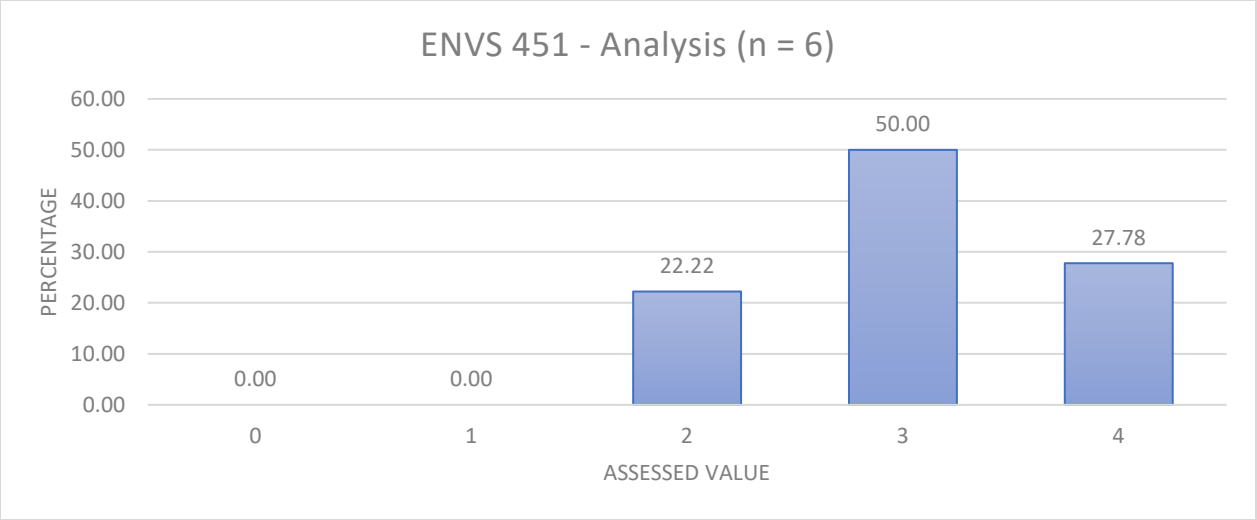
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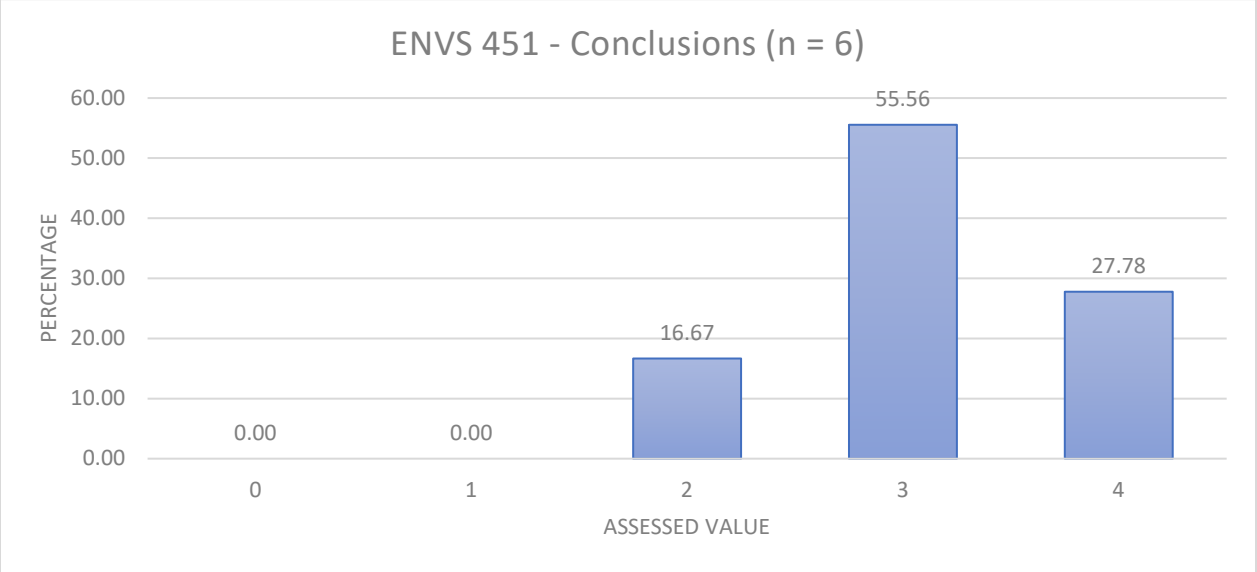
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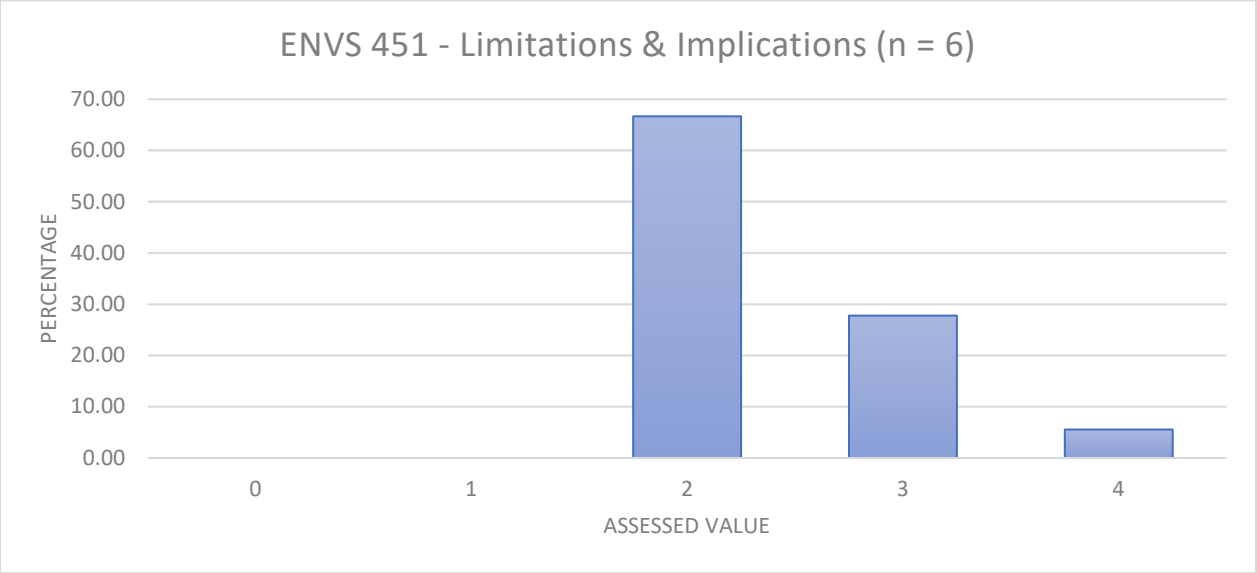
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ASSESSED VALUE