# Program Assessment Report B.S. in Crop Science University of Arkansas Academic Year 2019-2020

#### 1. Department Name & Contact Information

Robert Bacon, Dept Head Crop, Soil, and Environmental Sciences Dept. 115 Plant Science Bldg 479-575-5715 rbacon@uark.edu

#### 2. Department Mission

The mission of the Department of Crop, Soil, and Environmental Sciences is to provide superior education programs at the undergraduate and graduate levels, conduct innovative research and extension programs in the crop, soil, and environmental sciences and provide superior service for citizens of Arkansas and the nation.

#### 3. Program Goals

- **1.** Graduates have the discipline-specific knowledge in crop sciences required to perform successfully in private, government, or academic entry-level positions.
- **2.** Graduates are able to critically analyze, synthesize, and evaluate new information to make informed decisions.
- **3.** Graduates have the ability to solve complex, multidisciplinary problems.
- **4.** Graduates are able to prepare and synthesize information to effectively communicate, both orally and in writing.
- **4. Student Learning Outcome 1.** Students will demonstrate the discipline specific knowledge required to function as crop science professionals.

#### A. Assessment Measure for Outcome 1

- Achievement is measured using **pre- and post-assessment**.
- This is a direct measure of student learning.
- Pre- and post-assessment includes 25 test questions from the CPSC faculty covering crop science/physiology, weed science/pest management, crop production, and soil fertility/plant nutrition. These areas represent essential concepts for discipline-specific knowledge of students completing a crop science degree.
- The initial pre- and post-assessment was generated by the CPSC faculty during the spring 2016. Target populations are at least half of the (incoming) and half of the fall graduating CPSC class.
- In the spring of 2020, Dr. Bertucci had his CSES 2103 Crop Science (SP) students complete the
  pre-test. Crop Science is a required course for all CPSC students and is the targeted course for
  the pre-assessment. Eight of the 16 students in the CSES 2103 course were CPSC students and
  there was no difference in scores between CPSC students and the full course (median of 46 vs
  48, respectively).
- All six students in CSES 4013 Advanced Crop Science completed the post-test during the spring 2020. CSES 4013 is a required course for all CPSC students.

- Scores are calculated for each assessment with the range, average, and median calculated for the cohort of pre- or post-assessments. We target calculation of the change in scores from preto post-assessment.
- **B.** Acceptable and Ideal Targets (not required for indirect measures)
- Acceptable: We are targeting a 50% increase in the mean and/or median test scores between the two populations (incoming and graduating students).
- Ideal: We are targeting a 75% increase in the mean and/or median test scores between the two populations (incoming and graduating students).

#### C. Summary of Findings

- Pre- to post-test scores did show improvement with a 33% increase in minimum scores, 11 % increase in maximum scores, and 24 and 23% increases in average and median scores, respectively.
- The median post-test score was 60 which was less than previous median scores of 76 and 75%.

#### D. Recommendations

- The target course for pre-testing should continue to be CSES 2103 while we have a full-time staff or faculty member teaching that required course; although, the department should consider how to pre-test CPSC students in the fall of the first semester of enrollment.
- The target course for post-testing should continue to be CSES 4013. CSES 4013 was moved to spring semester a couple of years ago to help with scheduling and should also catch students who are closer to graduating in their final spring semester.
- Another year of pre- and post-assessment results should follow with discussion of curriculum and determination of appropriate target achievement levels.
- **5. Student Learning Outcome 2.** Students will demonstrate the ability to critically evaluate situations or scenarios to arrive at well thought out and supported decisions and outcomes.

#### A. Assessment Measure for Outcome 2

- Achievement will be measured using a critical thinking scenario (administered during class, potentially included on the post-assessment for learner outcome #1) and assessed using a critical thinking rubric.
- This is a direct measure of student learning.
- CSES 4013 Advanced Crop Science, a required course for all CPSC students, is the target course for the assessment.
- Assessment scenarios will be generated to cover application of critical thinking in crop science contexts.
- **B.** Acceptable and Ideal Targets (not required for indirect measures)
- Acceptable: 50% of seniors assessed will score proficient or greater.
- Ideal: 75% of seniors assessed will score proficient or greater.

#### C. Summary of Findings

• Faculty continue to contemplate how to best evaluate critical thinking using the assessment rubric within the context of the course.

#### D. Recommendations

- Crop Science faculty need to resolve how to effectively evaluate critical thinking among CPSC students. With the implementation of the General Education Core Curriculum Learner Outcome 6 there is a requirement that the student must write a self-reflection essay where the student articulates how they have applied the General Education core to their overall degree learning. This provides an opportunity to apply the assessment rubric for critical thinking capturing at least those CPSC students enrolled in such a capstone course. Faculty should consider this opportunity as an approach to incorporate assessment of critical thinking in the CPSC curriculum.
- **6. Student Learning Outcome 3.** Students will demonstrate the ability to work through and solve complex, multidisciplinary problems.

#### A. Assessment Measure for Outcome 3

- Achievement will be measured using a problem based scenario (administered during class, potentially included on the post-assessment for learner outcome #1) and scored using a problem solving rubric.
- This is a *direct* measure of student learning.
- CSES 4013 Advanced Crop Science, a required course for all CPSC students, is the target course for the problem solving assessment.
- Assessment scenarios will be generated to cover application of problem solving in crop science contexts.
- **B.** Acceptable and Ideal Targets (not required for indirect measures)
- Acceptable: 50% of seniors assessed will score proficient or greater.
- Ideal: 75% of seniors assessed will score proficient or greater.

#### C. Summary of Findings

Faculty continue to contemplate how to best evaluate problem solving among CPSC students.

#### D. Recommendations

- Crop Science faculty need to resolve how to effectively evaluate problem solving among CPSC students.
- **7. Student Learning Outcome 4a.** Students will demonstrate the skills required to effectively communicate technical/scientific information in oral platforms.

#### A. Assessment Measure for Outcome 4a

- Achievement will be assessed using an oral communication rubric during oral presentations
  where the student has compiled and evaluated the scientific literature as part of a class project
  and/or completed an independent research project as part of a special problems, research
  project or internship class.
- CSES 3023 CSES Colloquium (FA), an upper division, professional development, communicationintensive course that should capture at least capture at least half of the senior population, is the target course for the assessment.

- CSES 462V Internship, Special Problems, and Honors thesis defenses provide opportunities where students present their experiences to an audience and the oral communication rubric can be used to evaluate communication skills.
- This is a *direct* measure of student learning.
- **B.** Acceptable and Ideal Targets (not required for indirect measures).
- Acceptable: 60% of seniors assessed will score proficient or greater.
- Ideal: 80% of seniors assessed will score proficient or greater.

#### C. Summary of Findings

- CSES Colloquium is a fall course that is required for CPSC students. Most enroll as seniors, although some students are juniors when they take the course. Four of the students enrolled in the course during the fall 2019 were CPSC students.
- Performance was evaluated during a 10-12-minute presentation that was given by each student
  as a member of a paired research team. Teams selected overarching topics and individual's
  subtopics support a single overarching thesis. Students were taught how to work in a team,
  research and cite evidence, and develop and deliver a presentation to a scientific audience of
  peers. Scores were assessed individually for organization, language, delivery, supporting
  material, and central message.
- Scores for all criteria ranged from basic to proficient (language) or mastery. The average score
  for organization and delivery was 3.0 or proficient, 2.9 for central message, and 2.5 for language
  and supporting material. Median scores were the same or lower than the respective average
  scores.

#### D. Recommendations

- This year's students appeared to somewhat similar to last year's students in that weaker areas appeared to be using language and supporting material to deliver a scientific speech.
- We will continue to collect data during the next few years to assess performance in oral
  communication. Supporting and effectively communicating a concise, well supported scientific
  presentation can be difficult, especially when working with others. Development of these skills is
  critical to functioning in the workforce in the applied sciences. These oral communication skills
  are skills that employers often complain are lacking in college graduates. However, it is also
  difficult to determine how representative these data are because of the small size of the data
  sets.
- **8. Student Learning Outcome 4b.** Students will demonstrate the ability to integrate, organize, and effectively present written reports of technical/scientific information.

#### A. Assessment Measure for Outcome 4b

- Achievement will be assessed using a written communication rubric for laboratory reports and technical/scientific proposals where the student has analyzed, synthesized and evaluated information from independent sources as part of a class project and/or completed an independent research project as part of a special problems, research project or internship class.
- CSES 462V Internship, Special Problems, and Honors thesis research provide opportunities
  where students have completed independent research projects. Students have to write papers
  in which they organize data and information they have analyzed, synthesized and evaluated to
  clearly and fluently convey a message.

- This is a direct measure of student learning.
- B. **Acceptable** and **Ideal Targets** (<u>not required</u> for indirect measures).
- Acceptable: 60% of seniors assessed will score proficient or greater.
- Ideal: 80% of seniors assessed will score proficient or greater.

#### C. Summary of Findings

• While an internship or special problem experience is required in the CPSC degree, writing skills were not evaluated during the 2018-2019 year.

#### D. Recommendations

 Crop Science faculty need to reevaluate an approach that allows for systematic evaluation of written communication skills among graduating CPSC students.

#### 9. Overall Recommendations

- Pre- and post-assessment appears to be established, as does assessment for oral communication skills.
- Crop Science faculty need to focus on how to effectively implement assessment of critical thinking, problem solving, and writing skills.
- With one more year of data collection, CPSC should consider and discuss outcome 1 targets.

#### 10. Action Plan

- There may be an opportunity with the upcoming changes occurring with the General Education
  Core to integrate assessment of problem solving and writing skills into assessment of Learner
  Outcome 6 that the department will be incorporating and is supposed to be getting training on
  and implementing during the next academic year.
- The pre-assessment needs to continue being administered to incoming students in CSES 2103, while the post-assessment needs to continue being administered during CSES 4013.
   Furthermore, oral communication skills should continue to be assessed in CSES 3023.

#### 11. Supporting Attachments

- Pre-/post-assessment for CPSC
- Critical thinking rubric adapted from Association of American Colleges and Universities
- Problem solving rubric adapted from Association of American Colleges and Universities
- Oral communication skills rubric adapted from Association of American Colleges and Universities
- Written communication skills rubric adapted from Association of American Colleges and Universities

## **Crop Science BS graduates Quantitative Assessment Pre- and Post-test**

Name:			Score:
Date: _			
1.	Which	n of the following is the <u>least</u> ava	ailable source of nutrients?
	a.	Soil solution	
	b.	Cation exchange sites	
	c.	Organic matter	
	d.	Soil minerals	
2.	If a nu	strient is released to the soil duri	ng decomposition of an organic material,
	has occ	curred.	
	a.	Mineralization	
	b.	Immobilization	
	c.	Antagonism	
	d.	Soil mining	
3.	Nutrie	ent concentrations	change with depth.
		Never	
	b.	Sometimes	
	c.	Usually	
	d.	Always	
4.	Which	n of the following conditions allo	ow N-based manure applications?
	a.	Low soil N	
	b.	High soil N	
	c.	Low P Index	
	d.	High P Index	
	e.	Hyperion	
5.	Cation	ns are held on the CEC by	charges on clay and organic matter.
		Neutral	
	b.	Gravitational	
	c.	Positive	
	d.	Negative	
6.	Poorly	drained soils that are wet most	of the year are often
	a.	Grey	
	b.	Red	
	c.	Brown	
	d.	Pink	

7.	a. b. c.	of the following characteristic describe a nutrient that is mobile in the plant?  Deficiency symptoms result in root death  Xylem tissue is discolored and nonfunctional  Deficiency symptoms appear in older leaves first  Phloem tissue is discolored and nonfunctional	
8. Which of the following characteristics is used to identify broadleaf weed seedlings			
		Ligules	
		Cotyledons	
		Auricles	
	d.	Pubescent collar	
9.	What i	s the first step to properly control a weed?	
	a.	Determine the weed density	
	b.	Assess the economic impact of the control measure	
	c.	Properly identify the weeds present	
	d.	Determine the risk for off-target movement of the herbicide	
	e.	All of the above	
10.	What i	s a restricted use pesticide?	
		Pesticides that can only be used by Certified Applicators, or under the supervision of	
		Certified Applicators	
	b.	Roundup	
	c.	Pesticides that can be used only in a prescribed area (i.e., only in athletic fields)	
		Pesticides that can be used only for a certain crop	
11.		of the following words are associated with levels or categories of pesticide toxicity? as many as you deem correct.	
	a.	Keep out	
	b.	Danger	
	c.	Do not enter	
		Caution	
		Warning	
12.	Plant f	lowers featuring and are said to be perfect.	
	a.	Anthers and filaments	
	b.	Stigma, style, ovary	
	c.	Petals	
	d.	Pistil and stamen	

13.	Which	is an example of a naturally self-pollinated crop?
	a.	Soybean
	b.	Corn
	c.	Alfalfa
	d.	Self-fertile plants
14.	Which	of the following are products of photosynthesis?
	a.	Sugars and O <sub>2</sub>
	b.	Sugars and H <sub>2</sub> O
	c.	Sugars and CO <sub>2</sub>
	d.	Sugars and H <sub>2</sub>
15.	Legun	nes are important as cover crops and in rotations because they:
	a.	Help prevent erosion
	b.	Can be grown without fungicides or insecticides
		Can be grown without N fertilizer
	d.	Can break through soil hard pans
16.	The "E	Bt" trait that is commonly found in corn hybrids
		Produces a protein that kills caterpillars when they eat the plant
	b.	Allows the crop to be sprayed with the herbicide glyphosate
	c.	Increases the "biosynthetic transport" system that improves nitrogen use efficiency
	d.	Produces a fungicide that prevents aflatoxin from forming
17.	If a tru	e breeding plant has a single dominant trait that causes purple flowers is crossed with a
	true br	eeding plant with the recessive trait causing white flower, then all the plants resulting from
	that cre	oss in the next generation
	a.	Will have white flowers
	b.	There will be a 3 to 1 ratio of purple to white flowers in the plants resulting from the
		cross
	c.	Will have purple flowers
	d.	There will be a 3 to 1 ratio of white to purple flowers in the plants resulting from the
		cross
18.	Offspr	ing of two plants which differ genetically are
	a.	Clones
	b.	Hybrids
	c.	Sisters
	d.	Parents
19.	Transg	genic crops contain
	a.	Genes from another organism
		Altered genes from the same species
		Genes native to the plant
	d.	All of the above

- 20. Cotton fertilizer requirements are determined by:
  - a. Pre-season soil analysis
  - b. Petiole analysis during the season
  - c. The yield of the previous season's crop
  - d. The market price of cotton
- 21. Evapotranspiration refers to:
  - a. Evaporation from the soil
  - b. Transpiration from the plant plus soil evaporation
  - c. Water evaporated from the canopy surface
  - d. Water lost through soil drainage
- 22. Why do we flood rice?
  - a. Rice is a semiaquatic plant that is not drought tolerant
  - b. For weed control
  - c. Nutrition-most nutrients are more available in a flooded soil
  - d. Answers a. and b.
  - e. All of the above
- 23. Vegetative growth stages in corn are differentiated by the number of ...
  - a. Ears
  - b. Leaf collars
  - c. Tillers
  - d. Brace roots
- 24. Crops tolerate a mild water shortage by:
  - a. Shedding leaves and fruit
  - b. By stopping plant growth
  - c. Closing stomates and increasing root activity
  - d. Leaf wilting
- 25. Which of the following phrases best describes the Arkansas DD-50 Computerized Program for rice?
  - a. A program that indicates which varieties would be best to grow at different geographical locations and determines the best seeding rate.
  - b. A program based on soil type and seeding date that indicates what the best seeding rate would be for the various rice varieties.
  - c. A program which uses temperature data to predict when the rice plant will reach critical growth stages and when certain management practices should be performed.
  - d. A program that uses soil data to indicate which and how much of various fertilizers to apply.

## **CRITICAL THINKING VALUE RUBRIC**

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#### 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, and can be demonstrated in assignments that require students to complete analyses of text, data, or issues..

	<b>Capstone</b> Exemplary	<b>Mile</b> s Proficient	s <b>tones</b> Basic	<b>Benchmark</b> Developing
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.

### **Crop, Soil, and Environmental Sciences Undergraduate Student Critical Thinking Performance Assessment Rubric**

	Student			
	Degree	ESWS	CPSC	
	Course			
	Assignment			
	Date			
Stu	dent Learning Out	comes	Score using Rubric	
1.	Explanation of	issues		_
2.	Evidence			_
3.	Influence of co	ntext and assumptions		_
4.	Student's posit	ion (perspective, thesis/hypothesis)		_
5.		d related outcomes nd consequences)		=
4 =	ubric Scale Mastery			

<sup>3 =</sup> Proficient

<sup>2 =</sup> Basic

<sup>1 =</sup> Developing

## PROBLEM SOLVING VALUE RUBRIC

for more information, please contact value@aacu.org



**Definition:** Problem solving is the **process** of designing, evaluating, and implementing a strategy to answer an open-ended question or achieve a desired goal, involving problems that range from well-defined to ambiguous in a simulated or laboratory context, or in real-world settings.

	Capstone Milestones Exemplary Proficient Basic		<b>ones</b> Basic	Benchmark
Define Problem	Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.			Developing  Demonstrates a limited ability in identifying a problem statement or related contextual factors.
Identify Strategies	Identifies multiple approaches for solving the problem that apply within a specific context.	Identifies multiple approaches for solving the problem, only some of which apply within a specific context.	Identifies only a single approach for solving the problem that does apply within a specific context.	Identifies one or more approaches for solving the problem that do not apply within a specific context.
Propose Solutions/ Hypotheses	Proposes one or more solutions/hypotheses that indicates a deep comprehension of the problem. Solution/hypotheses are sensitive to contextual factors as well as all of the following: ethical, logical, and cultural dimensions of the problem.	comprehension of the problem. Solutions/hypotheses are sensitive to	Proposes one solution/hypothesis that is "off the shelf" rather than individually designed to address the specific contextual factors of the problem.	Proposes a solution/hypothesis that is difficult to evaluate because it is vague or only indirectly addresses the problem statement.
Evaluate Potential Solutions	Evaluation of solutions is deep and elegant (for example, contains thorough and insightful explanation) and includes, deeply and thoroughly, all of the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is adequate (for example, contains thorough explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is brief (for example, explanation lacks depth) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.	Evaluation of solutions is superficial (for example, contains cursory, surface level explanation) and includes the following: considers history of problem, reviews logic/reasoning, examines feasibility of solution, and weighs impacts of solution.
Implement Solution	Implements the solution in a manner that addresses thoroughly and deeply multiple contextual factors of the problem.	Implements the solution in a manner that addresses multiple contextual factors of the problem in a surface manner.	Implements the solution in a manner that addresses the problem statement but ignores relevant contextual factors.	Implements the solution in a manner that does not directly address the problem statement.
Evaluate Outcomes	Reviews results relative to the problem defined with thorough, specific considerations of need for further work.	Reviews results relative to the problem defined with some consideration of need for further work.	Reviews results in terms of the problem defined with little, if any, consideration of need for further work.	Reviews results superficially in terms of the problem defined with no consideration of need for further work

## Crop, Soil, and Environmental Sciences Problem Solving Performance Assessment Rubric

Stud	ent			
Degree		ESWS	CPSC	
Cour	se			
Assig	nment			
Date				
Stud	ent Learning Outcome	es	Score using Rubric	
1.	Define Problem			
2.	Idenitifying Strategies			
3.	Propose Solutions/Hyp	Propose Solutions/Hypotheses		
4.	Evaluate Potential Solu			
5.	Implement Solution			
6.	Evaluate Outcomes			
4 = M	ric Scale lastery roficient			

1 = Developing

## **ORAL COMMUNICATION VALUE RUBRIC**

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**Definition:** Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

	Capstone		Milestones	Benchmark	
	Exemplary	Proficient	Basic	Developing	
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.	
Language	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.	
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.	
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.	
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.	

## Crop, Soil, and Environmental Sciences Oral Communication Performance Assessment Rubric

Stud	lent		
Degree		ESWS	CPSC
Course			
Assignment			
Date	2		
Stud	lent Learning Out	omes	Score using Rubric
1.	Organization		
2.	Language		
3.	Delivery		
4.	Supporting Mate	rial	
5.	Central Message		
4 = N	oric Scale Mastery Proficient Basic		

1 = Developing

#### WRITTEN COMMUNICATION VALUE RUBRIC

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#### **Definition**

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

	Capstone	Milestones		Benchmark
	Exemplary	Proficient	Basic	Developing
Context of and Purpose for Writing Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high- quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

### **Crop, Soil, and Environmental Sciences Written Communication Performance Assessment Rubric**

Stud	ent			
Degr	ee	ESWS	CPSC	
Cour	se			
Assig	nment			
Date				
Stud	ent Learning Out	comes	Score (	using Rubric
1.	Context of and F	Purpose for Writing		
2.	Content Develo	oment		
3.	Genre and Disci	plinary Conventions		
4.	Sources and Evi	dence		
5.	Control of Synta	x and Mechanics		
*Rub	ric Scale			

- 4 = Mastery
- 3 = Proficient
- 2 = Basic
- 1 = Developing