

## 2017 Assessment Results of NRRE Majors

Department of Animal and Range Sciences

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In the spring of 2017, the Faculty of the Natural Resources and Rangeland Ecology major met to formulate a plan to assess the program. This document is a report of our findings.

### Methods:

As a result of our curriculum mapping exercise, we decided to assess learning outcome #1, Knowledge, in NRSM 351 Biomes of Western Wildlands; and learning outcome #2, Critical Thinking, in NRSM 455 in the Spring semester of 2017. We randomly selected 12 student writing assignments from each class to evaluate. The assessment criteria forms from FIU for subject content knowledge and critical thinking were modified using a scale from 1-3 (Appendices A&B). Any average score that was below a 2 was considered to be below expectations, and any average score of 2 or above was considered to meet expectations (or acceptable) or exceeds expectations.

### Results:

The results of our assessment are listed in Table one. Eighty-three percent of the students in NRSM 351 were above our minimum expectations for knowledge. This was slightly above our expected rate of 80%. Seventy-five percent of the students in NRSM 455 met the minimum expectations for critical thinking, which was 5% below our projected minimum level.

We identified some common mistakes related to our student's skills:

1. Students did not address the question or focus on specific question.
2. Students did not identify the problem or purpose.
3. Students did not properly cite sources.
4. Students were not familiar with journal manuscript style or format.
5. Students used direct quotes instead of paraphrasing information.

We also identified some possible solutions:

1. Incorporate more writing assignments in NRRE courses.
2. Provide example papers, grading rubrics and the common mistakes of most papers.
3. Create a writing packet for our majors that would help identify problems.
4. Create writing studios similar to the MSU Writing Center which would be run by our graduate students.

Table 1. Department of Animal & Range Sciences Assessment of Natural Resource and Rangeland Ecology  
**Spring 2017**

<b>Knowledge (NRSM 351)</b>			
Scale: 1-3; 1 = did not meet, 2 = meets expectations, 3 = exceeds expectations			
Paper Number	Reviewer 1	Reviewer 2	Average Score
1	2	2.5	2.25
2	3	3	3
3	1	2	1.5
4	2	2	2
5	2	3	2.5
6	3	3	3
7	2	2.5	2.25
8	2	2	2
9	2	2	2
10	3	3	3
11	3	3	3
12	1	1	1
Total Mean:			2.29

<b>Critical Thinking (NRSM 455)</b>			
Scale: 1-3; 1 = did not meet, 2 = meets expectations, 3 = exceeds expectations			
Paper Number	Reviewer 1	Reviewer 2	Average Score
1	1	2	1.5
2	2	3	2.5
3	2	2	2
4	2	1.5	1.75
5	3	3	3
6	2	3	2.5
7	2	1	1.5
8	2	2.5	2.25
9	2	2	2
10	2	3	2.5
11	3	3	3
12	3	2	2.5
Total Mean:			2.25

Any average score below a 2 is not a passing score

**Learning Outcome: Knowledge**

83% of papers met minimum standards (pass)

17% of papers did not meet minimum standards (fail)

**Learning Outcome: Critical Thinking**

75% of papers met minimum standards (pass)

25% of papers did not meet minimum standards (fail)

## Appendix 1

Department of Animal & Range Sciences

Natural Resource and Rangeland Ecology Assessment - Spring 2017

### Rubric for the Assessment of: Knowledge

1 = does not meet standards; 2 = met standards; 3 = exceeds standards

Indicators of Subject Content Knowledge	1	2	3	Score
<b>Investigate and Research</b>	Little inquiry; limited knowledge shown	explores topic with curiosity; adequate knowledge from variety of sources displayed	Knowledge base displays scope, thoroughness, and quality	
<b>Examine &amp; Identify the problem/question</b>	Does not identify or summarize the problem/question accurately, if at all	the main question is identified and clearly stated	The main question and subsidiary, embedded or implicit aspects of a question are identified and clearly stated	
<b>Analyzes and Synthesize:</b> Identifies and evaluates the quality of supporting data/evidence; detects connections and patterns	no supporting data or evidence is utilized; separates into few parts; detects few connections or patterns	Evidence is used but not carefully examined; source(s) of evidence are not questioned for accuracy, precision, relevance and completeness; facts and opinions are stated but not clearly distinguished from value judgments	Evidence is identified and carefully examined for accuracy, precision, relevance, and completeness; facts and opinions are stated and clearly distinguished; combines facts and ideas to create new knowledge that is comprehensive and significant	
<b>Constructs &amp; Interprets:</b> Identifies and evaluates the conclusions, implications, and consequences; develops ideas	combines few facts and ideas; needs more development; conclusions, implications; consequences are not provided	Accurately identifies conclusions, implications and consequences with a brief evaluative summary; uses perspectives and insights to explain relationships; states own position on the question	Accurately identifies conclusions, implications, and consequences with a well-developed explanation; provides an objective reflection of own assertions	
			TOTAL:	

## Appendix 2

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### Rubric for the Assessment of: **Critical Thinking**

1 = does not meet standards; 2 = met standards; 3 = exceeds standards

Indicators of Subject Content Knowledge	1	2	3	Score
<b>Investigate and Research</b>	Little inquiry; limited knowledge shown	Explores topic with curiosity; adequate knowledge from variety of sources displayed	Knowledge base displays scope, thoroughness, and quality	
<b>Examine &amp; Identify the problem/question</b>	Does not identify or summarize the problem/question accurately, if at all	the main question is identified and clearly stated	The main question and subsidiary, embedded or implicit aspects of a question are identified and clearly stated	
<b>Analyzes and Synthesize:</b> Identifies and evaluates the quality of supporting data/evidence; detects connections and patterns	no supporting data or evidence is utilized; separates into few parts; detects few connections or patterns	Evidence is used but not carefully examined; source(s) of evidence are not questioned for accuracy, precision, relevance and completeness; facts and opinions are stated but not clearly distinguished from value judgments	Evidence is identified and carefully examined for accuracy, precision, relevance, and completeness; facts and opinions are stated and clearly distinguished; combines facts and ideas to create new knowledge that is comprehensive and significant	
<b>Constructs &amp; Interprets:</b> Identifies and evaluates the conclusions, implications, and consequences; develops ideas	combines few facts and ideas; needs more development; conclusions, implications; consequences are not provided	Accurately identifies conclusions, implications and consequences with a brief evaluative summary; uses perspectives and insights to explain relationships; states own position on the question	Accurately identifies conclusions, implications, and consequences with a well-developed explanation; provides an objective reflection of own assertions	
			<b>TOTAL:</b>	

