**Core Course Assessment Plan, 2018-19**

**Element 6: Natural Sciences**

**Please complete all sections; do not delete section information. Submit to Pilot when complete.**

**SECTION 1: GENERAL INFORMATION**

Course Dept. Prefix: \_\_\_\_\_\_\_\_ Course #: \_\_\_\_\_\_\_\_\_\_

Semester when assessment will occur: 🞎 Spring 🞎 Summer 🞎 Fall Year: 2018 or 2019

Course Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section Types and number of sections offered in 2018-19. Complete all that apply.

|  |  |
| --- | --- |
| \_\_\_\_\_ Dayton face-to-face  | \_\_\_\_\_ Lake face-to-face |
| \_\_\_\_\_ Dayton online | \_\_\_\_\_ Lake online |
| \_\_\_\_\_ Dayton Honors | \_\_\_\_\_ Lake Honors |

Attributes: \_\_\_\_ Integrative Writing in Core

 \_\_\_\_ Multicultural Competency in Core

 \_\_\_\_ Service Learning in Core

Dept. Core Assessment Lead: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Name email

List at least two assessors; this may include course instructor only if there are multiple sections and multiple instructors of the course. Note - The instructor may not assess his/her students’ papers.

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**SECTION 2: ASSESSMENT PLAN**

**It is preferable to have the assessment plan for all sections of a course. If not feasible, please complete an assessment plan for separate sections.**

Course Outcomes. \_\_\_\_\_ Check here if Outcomes have been modified.

The course must address all 5 outcomes but must assess a minimum of 1 outcome. Highlight in yellow the outcome(s) you will assess. If you have modified the outcomes, please insert here in place of standard outcomes.

1. Understand the nature of scientific inquiry;
2. Critically apply knowledge of scientific theory and methods of inquiry to evaluate information from a variety of sources;
3. Distinguish between science and technology and recognize their roles in society;
4. Demonstrate an awareness of theoretical, practical, creative and cultural dimensions of scientific inquiry; and
5. Discuss fundamental theories underlying modern science.

Assignments. Select **one** of the options below for assessment of one or more outcomes

🞎 Written assignment(s) that addresses/address outcome(s). Include outcome #, title and description for each assignment.

Outcome #: \_\_\_\_\_\_ Title:

Description of assignment:

🞎 Essay question(s). Provide the question(s) and outcome(s) below.

1. Outcome #: \_\_\_\_\_\_ Essay Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Outcome #: \_\_\_\_\_\_ Essay Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Outcome #: \_\_\_\_\_\_ Essay Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

🞎 Pilot asynchronous written discussion that addresses outcome(s). Provide the outcome # and question(s).

1. Outcome #: \_\_\_\_\_\_ Discussion Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Outcome #: \_\_\_\_\_\_ Discussion Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Outcome #: \_\_\_\_\_\_ Discussion Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

🞎 Multiple Choice or T/F Marker questions – 3 to 4 questions per outcome. List the outcome and question numbers. A rubric is not used for Marker questions. “All the above” should not be used as the correct answer more than once.  **Courses that are IW or SRV/SRVI must use written assignments for those attributes**. Complete the benchmark: We expect \_\_\_\_\_% of students to answer \_\_\_\_% of the question(s) correctly.

1. Outcome #: \_\_\_\_\_\_\_\_\_\_\_
	1. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Outcome #: \_\_\_\_\_\_\_\_\_\_\_
	1. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Outcome #: \_\_\_\_\_\_\_\_\_\_\_
	1. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Question: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Collecting and submitting the student assignment(s)

\_\_\_\_ Will upload assignment(s) to Pilot \_\_\_\_\_ Will give access to assignment(s) on Pilot

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rubric Selection (A, B). Select the items you feel best match your assignment(s) in the rubric(s) on the next pages. Please highlight in yellow. **If this course has an IW attribute, please also see section B.**

**A. Element 6 Rubric. Select the item(s) you will use in your rubric by highlighting in yellow the item(s). You may select one or more of them.** As there is overlap, **choose the items that best fit the assignment you select for assessment.** The items below are taken from the Association of American Colleges and Universities (AACU) Value Rubrics for Critical Thinking and Inquiry and Analysis.

**IF YOU ARE USING MARKER QUESTIONS FOR THE OUTCOME, DO NOT USE THIS RUBRIC.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Mastery** 4 | **Partial Mastery****3** | **Progressing****2** | **Emerging** **1** |
| **AACU Critical Thinking VALUE Rubric Items** |
| **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. |
| **Item** | **Mastery** 4 | **Partial Mastery****3** | **Progressing****2** | **Emerging** **1** |
| **AACU Inquiry and Analysis VALUE Rubric Items** |
| **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 sub disciplines. | 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. |

**B. If this is an IW course, you will use the items on this page. You may select one or more of them. Please highlight in yellow.**

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| --- | --- | --- | --- | --- |
| **Item** | **Mastery** 4 | **Partial Mastery****3** | **Progressing****2** | **Emerging** **1** |
| **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. |
| **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. |

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**SECTION 3: UCRC COMMITTEE REVIEW ONLY. DO NOT delete this section.**

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| --- | --- | --- |
| **Item** | **Complete / NA / Revision Requested** | **Comments** |
| Learning Outcomes for Element 6 Natural Science |  |  |
| Assignments matched to Element 6 LOs |  |  |
| Rubric for LOs |  |  |
| Rubric for IW Attribute |  |  |
| Assigned Approved Reviewers  |  |  |

**Committee Review Completed** 🞎

Committee Chair Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_