

## 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:       BIO        Course #:          1070       

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

Course Title:        **Human Health and Disease** \_\_\_\_\_

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

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> <u>  </u> Dayton face-to-face | <input type="checkbox"/> <u>      </u> Lake face-to-face |
| <input type="checkbox"/> <u>      </u> Dayton online              | <input type="checkbox"/> <u>      </u> Lake online       |
| <input type="checkbox"/> <u>      </u> Dayton Honors              | <input type="checkbox"/> <u>      </u> Lake Honors       |

Attributes:            Integrative Writing in Core  
                           Multicultural Competency in Core  
                           Service Learning in Core

Dept. Core Assessment Lead:

Name    David Goldstein         email: [goldsteind@wright.edu](mailto:goldsteind@wright.edu)  
                   Don Cippolini                    email: [cippolinid@wright.edu](mailto:cippolinid@wright.edu)

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.

- \_\_\_\_\_
- William Romine \_\_\_\_\_
- Wright State test scanning office (CATS) \_\_\_\_\_
- \_\_\_\_\_

### SECTION 2: ASSESSMENT PLAN

**It is preferable to have a single 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 a minimum of one option per learning outcome.

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 70 % of students to answer 50 % of the question(s) correctly.

Outcome 5:

1. In \_\_\_\_\_, the body's organ systems normally maintain temperature, pH, blood composition, and fluid levels within a precise range.

- A) disease
- B) health
- C) homeostasis
- D) pathology

2. The immune system protects the body by distinguishing

- A) inside from outside
- B) positive from negative
- C) self from non-self
- D) upper from lower

3 Uncontrolled cell division is the result of \_\_\_\_\_ in genes that play a role in cell division.

- A) metastasizes
- B) mutations
- C) nodes
- D) nuclei

Collecting and submitting the student assignment(s)

\_\_\_\_\_ Will upload assignment(s) to Pilot

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

Other: \_\_\_\_\_ Top Hat \_\_\_\_\_

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. You may also choose your own rubric and submit it with this plan. IF YOU ARE USING MARKER QUESTIONS FOR THE OUTCOME, DO NOT USE THIS RUBRIC.**

Item	Mastery 4	Partial Mastery 3	Progressing 2	Emerging 1
<b>Global Self-Awareness</b>	Effectively addresses significant issues in the natural and human world based on articulating one’s identity in a global context.	Evaluates the global impact of one’s own and others’ specific local actions on the natural and human world.	Analyzes ways that human actions influence the natural and human world.	Identifies some connections between an individual’s personal decision-making and certain local and global issues.
<b>Perspective Taking</b>	Evaluates and applies diverse perspectives to complex subjects within natural and human systems in the face of multiple and even conflicting positions (i.e. cultural, disciplinary, and ethical.)	Synthesizes other perspectives (such as cultural, disciplinary, and ethical) when investigating subjects within natural and human systems.	Identifies and explains multiple perspectives (such as cultural, disciplinary, and ethical) when exploring subjects within natural and human systems.	Identifies multiple perspectives while maintaining a value preference for own positioning (such as cultural, disciplinary, and ethical).
<b>Cultural Diversity</b>	Adapts and applies a deep understanding of multiple worldviews, experiences, and power structures while initiating meaningful interaction with other cultures to address significant global problems.	Analyzes substantial connections between the worldviews, power structures, and experiences of multiple cultures historically or in contemporary contexts, incorporating respectful interactions with other cultures.	Explains and connects two or more cultures historically or in contemporary contexts with some acknowledgement of power structures, demonstrating respectful interaction with varied cultures and worldviews.	Describes the experiences of others historically or in contemporary contexts primarily through one cultural perspective, demonstrating some openness to varied cultures and worldviews.
<b>Personal and Social Responsibility</b>	Takes informed and responsible action to address ethical, social, and environmental challenges in global systems and evaluates the local and broader consequences of individual and collective interventions.	Analyzes the ethical, social, and environmental consequences of global systems and identifies a range of actions informed by one’s sense of personal and civic responsibility.	Explains the ethical, social, and environmental consequences of local and national decisions on global systems.	Identifies basic ethical dimensions of some local or national decisions that have global impact.

<b>Understanding Global Systems</b>	Uses deep knowledge of the historic and contemporary role and differential effects of human organizations and actions on global systems to develop and advocate for informed, appropriate action to solve complex problems in the human and natural worlds.	Analyzes major elements of global systems, including their historic and contemporary interconnections and the differential effects of human organizations and actions, to pose elementary solutions to complex problems in the human and natural worlds.	Examines the historical and contemporary roles, interconnections, and differential effects of human organizations and actions on global systems within the human and the natural worlds.	Identifies the basic role of some global and local institutions, ideas, and processes in the human and natural worlds.
<b>Applying Knowledge to Contemporary Global Contexts</b>	Applies knowledge and skills to implement sophisticated, appropriate, and workable solutions to address complex global problems using interdisciplinary perspectives independently or with others.	Plans and evaluates more complex solutions to global challenges that are appropriate to their contexts using multiple disciplinary perspectives (such as cultural, historical, and scientific).	Formulates practical yet elementary solutions to global challenges that use at least two disciplinary perspectives (such as cultural, historical, and scientific).	Defines global challenges in basic ways, including a limited number of perspectives and solutions.

**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.**

<b>Item</b>	<b>Mastery 4</b>	<b>Partial Mastery 3</b>	<b>Progressing 2</b>	<b>Emerging 1</b>
<b>Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).</b>	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).
<b>Content Development</b>	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and	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.

	shaping the whole work.			
<b>Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).</b>	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.
<b>Sources and Evidence</b>	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.
<b>Control of Syntax and Mechanics</b>	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.**

Item	Complete / NA / Revision Requested	Comments
Learning Outcomes for Element 6 Natural Science	Complete	
Assignments matched to Element 6 LOs	Complete	
Rubric for LOs	Revision Requested - benchmarking is provided for multiple choice questions.	Recommend raising the benchmark. Having 70% of the students scoring 50% or higher is a low expectation, this is a significant portion failing the assessment. We recommend raising this to 70% of the students scoring 67% or higher. Which would have students getting 2 out of the 3 questions correct.
Rubric for IW Attribute	N/A	
Assigned Approved Reviewers	Complete	

Committee Review Completed Committee Chair Signature Dr. Anne M. Bowling Date December 2018**Date Report Submitted: 6/5/2022****Element: Core Element 2 – Mathematics or Core Element 6 – Natural Science****Academic Year: Element 6 – 2021-2022 Element 2 – 2019 to 2020 (adjust dates based on data collection).****Course and Sections Assessed:***Describe the final assessment plan that was implemented and explain any changes made to the approved plan.***I. Core Learning Outcomes Assessed (list):**

Outcome #5: Discuss fundamental theories underlying modern science.

**II. Procedures Used for Assessment**

Data for assessment was collected through three final exam questions.

**III. Summary of Assessment Results:**

80%-87% of students got these questions correct. This exceeds the benchmark of 70% of the students.

Benchmark Met X Yes or No Unknown

If not met, please identify conditions (if any) that may have impacted these findings.

**IV. ACTIONS TAKEN/PLANNED TO IMPROVE STUDENT LEARNING**

It is promising that a majority of the students answered these questions correctly since these are representative of key concepts underlying health and disease. We will nonetheless continue to improve student learning through regular formative assessment.

**V. Assessment Administration Feedback**

**UCOC Report Review**

Item	Complete/NA	Revision Requested	Comments
Identified Outcome Assessed	XX		
Identified Procedure for Assessment	XX		
Summary of Results	XX		
Results Shared with Instructor, Dept Curriculum Committee, etc.	XX		
Plan for Improvements	XX		

**Committee Review Completed XXX**

Committee Chair Signature Dr. Anne M. Bowling Date 12/6/2022