**EPCC Proposal Form for Designation in Area of Engagement:**

**Scientific Reasoning (SR)**

**Department**: Click here to enter Department Name.

**Date**: Click here to enter a date.

**Proposed by**: Click here to enter proposer’s name

**Course Information**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course prefix | | | Course number | | | | Course title | |
| Course catalog description | | | | | | | | |
| Current catalog course?  (Select Yes or No) | | Yes | | | How often will the course be offered? | Frequency of offerings | | |
| Number of credit hours\* | Credits | | | Designation to be effective: | | Effective Semester | | Effective Year |
| \*Areas of Engagement with fewer than 4 credit hours should have partner courses in order to complete the area requirements of 4 total credits. | | | | | | | | |

**For administrative use only. Reviewed by**

Gen. Ed. Dir.: Click to enter Gen Ed Dir’s name Choose Approval. Choose date.

EPCC Chair: Click to enter EPCC Chair’s name Choose Approval. Choose date.

**Definitions**: These terms are used in the Course Characteristics and Student Learning Outcomes below.

Appropriate Empirical Methods: Accepted, discipline-based methodologies which are clearly aligned with the research question.

Ethical and other issues: Issues related to scientific inquiry include the issues in research involving the use of animals or humans, funding issues, safety issues, the limitations of scientific conclusions, and the misuse of scientific information.

Other Conventions, Practices and Issues Related to Scientific Inquiry: Grounding conclusions in evidence rather than emotion and seeking out and/or acknowledging evidence that may contradict your own hypothesis. Some topics may include some of the following: literature reviews, human subject reviews, ethical concerns, bias, errors in sampling, peer review/shared outcomes, correlation versus cause, currency of research, etc.

**Course Characteristics**: *By submitting this proposal the department agrees to verify that all offerings of this course, in any format, will contain these characteristics.* No information is needed here for this proposal. Choose an item.

SR CC1. use scientific problem solving in context throughout the course

SR CC2. have at least one inquiry-based experience for the students through which they address some scientific issue by

* stating a hypothesis
* designing an empirical study
* interpreting quantitative data
* drawing a conclusion about the data
* communicating the results

**Student Learning Outcomes (SLOs)**: 1) Describe examples of class activities (assignments, projects, papers, etc.) that might be used by the instructor to help students achieve each SLO.  2) Describe the artifacts that are collectible for assessment of each SLO.

A student who completes a SR course will be able to …

SR SLO1. investigate and draw conclusions about scientific questions from data and using appropriate empirical methods.

Examples of activities and collectible student artifacts: Click here to enter activities and collectible student artifacts.

SR SLO2. formulate and communicate questions using the scientific method

Examples of activities and collectible student artifacts: Click here to enter activities and collectible student artifacts.

SR SLO3. evaluate scientific information from popular and/or peer-reviewed sources

Examples of activities and collectible student artifacts: Click here to enter activities and collectible student artifacts.

SR SLO4. analyze ethical and/or other conventions, practices, and issues related to scientific inquiry

Examples of activities and collectible student artifacts: Click here to enter activities and collectible student artifacts.