**Liberal Education Goal Area 3** **Natural & Physical Sciences 3**

1. New Course  Existing Course

2. Will this course be flagged as a diversity course?  No

Already Designated as Diversity  Diversity Proposal Accompanying This Form

3. Will this course also satisfy another Liberal Education Goal Area?  No  Yes

If “Yes” specify which goal area.

4. EXISTING COURSES ONLY: Course catalog description, including credits and semesters to be offered:

5. Indicate the clientele for whom this course is designed. Is the course for Liberal Education only, or

does it fulfill Liberal Education and other program needs for this or another department? Obtain

signatures from any affected departments.

6. Indicate any changes that must be made in offerings or resources in your department or other

departments by offering this course.

7. For new courses or courses not yet approved for Liberal Education, indicate any other SCSU departments

or units offering instruction that relates to the content of the proposed course.

8. Courses designated as Liberal Education are included in the assessment plan for the Goal Area(s)

for which they are approved. Courses for which assessment is not included in the annual LE assessment report for two years will be removed from the Liberal Education Program.

The Requesting Unit understands and recognizes the above conditions.

9. Provide a concise explanation of how the following goal is a “significant focus” of the proposed course.

**Goal Area 3: Natural & Physical Sciences**

Explore scientific knowledge of the natural world. Understand the central concepts and principles of science; experience the process of scientific inquiry; comprehend science as a human endeavor and understand the impact of science on individuals and on society.

10. In order for a course to be designated as fulfilling Goal Area 3, it must address at least 5 of the 6 student learning outcomes (SLOs) below. Check the SLOs below that are focused on in the proposed Liberal Education course.

1. Demonstrate knowledge of concepts, principles, and theories in the physical or natural sciences.

2. Make observations and collect data, design and carry out experiments or other types of scientific investigations.

3. Formulate research questions and testable hypotheses, analyze and interpret data, draw inferences and conclusions, and identify further questions for investigation.

4. Demonstrate awareness of the interdependent relationships of basic science, applied science, mathematics, and technology.

5. Recognize the human nature of the scientific enterprise, including the importance of curiosity, creativity, and imagination; the dual nature of scientific knowledge as changeable and durable; and the impact of a scientist's personal identity on the scientific process.

6. Evaluate societal issues from a science perspective, question the evidence presented, and make informed judgments about these issues.

11. Discuss how each Student Learning Outcome checked above is achieved in this course. (Note: Although

descriptions of typical assignments or types of assignments may be part of this discussion, it is not

appropriate to submit copies of actual assignments.)

SLO #      Activity

SLO #      Activity

SLO #      Activity

SLO #      Activity

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SLO #      Activity

12. Courses satisfying Goal Area 3: Natural & Physical Sciences must have either a “traditional lab course or a lab-like experience”. Check which of these apply and supply a brief explanation of how the course is either a laboratory course or incorporates a “lab-like experience”. (The following quote from a National Research Council subcommittee report may help to identify a course with a laboratory. ”Laboratory experiences provide opportunities for students to interact directly with the material world (or with data drawn from the material world), using the tools, data collection techniques, models, and theories of science.” America's Lab Report: Investigations in High School Science (Free Executive Summary) http://www.nap.edu/catalog/11311.html

Course includes:  Laboratory  Lab-like experience

Description:

13. If this is a NEW course, refer to the content outline in the New Course zone. If it is an existing course, complete a content outline in the format below. The course outline must adequately describe the content and include a percentage of time to be allocated to each topic. Curriculum Committees may request additional information. Topics larger than 20% need to be broken down further. Be sure to indicate in your course outline where the Student Learning Outcomes checked above are being met.

%      Content #1

%      Content #2

%      Content #3

%      Content #4

%      Content #5

%      Content #6

%      Content #7

%      Content #8

%      Content #9

%      Content #10