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| **Course Abbreviation and Number:**      | **Course Title:** |
| **Number of Units:** **\_\_\_\_** |
| **College or Program:**[ ] CHABSS [ ] CSM [ ] CEHHS [ ] COBA [ ] Other       | **Desired term of implementation:** [ ]  Fall [ ] Spring  [ ] Summer Year:       | **Mode of Delivery:**[ ]  face to face[ ]  hybrid[ ]  fully on-line |
| **Course Proposer (please print):** | **Email:** | **Submission Date:** |

**1. Course Catalog Description:**

**2. PLEASE ATTACH SYLLABUS
GE Syllabus Checklist: The syllabi for all courses certified for GE credit must contain the following:**

|  |  |
| --- | --- |
| [ ]  | Course description, course title and course number |
| [ ]  | Student learning outcomes for General EducationArea and student learning objectives specific to your course, linked to how students will meet these objectives through course activities/experiences |
| [ ]  | Topics or subjects covered in the course |
| [ ]  | Registration conditions |
| [ ]  | Specifics relating to how assignments meet the writing requirement |
| [ ]  | Tentative course schedule including readings |
| [ ]  | Grading components including relative weight of assignments |

**SIGNATURES**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course Proposer |  | Date |  |  | Department Chair |  | date |  |
|  | ***Please note that the department will be required to report assessment data to the GEC annually. \_\_\_\_\_\_*** ***DC Initial*** |
|  |  | Support□ |  | Do not support\*□ |  |  | Support□ | Do not support\*□ |
| GEO Coordinator | Date |  |  |  | Library Faculty | Date |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | Support□ |  | Do not Support\*□ |  |  | Support□ | Do not Support\*□ |
| Impacted Discipline Chair | Date |  |  |  | Impacted Discipline Chair | Date |  |  |
|  |  | Approve□ |  | Do not Approve □ |  |  |  |  |
| GEC Chair | Date  |  |  |  |  |  |  |

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| **\* If the proposal is not supported, a memo describing the nature of the objection must be provided.** |
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| Course Coordinator:       Phone       Email:       |

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| **EXAMPLES FOR COMPLETING EACH SECTION ARE OFFERED IN RED*****Part A: Identify Upper Division area(s) associated with this course***  |
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| **BB. Mathematics, Quantitative Reasoning, or Physical and Life Sciences** | **Course content that addresses the area:** |
| 1. Apply principles of mathematics, natural sciences, or computational science to problems in the discipline of the course.
 |       |
| 1. Apply principles of mathematics, natural science, or computational science to contemporary issues beyond the discipline of the course (e.g., political, societal, business, cultural, diversity, health, environmental).
 |       |
| 1. Explain how a field of mathematics or science has progressed over time, giving examples of 1) well-established laws and theories that are no longer debated in scientific and mathematical circles, and 2) areas in which there are unanswered questions or where the application of well-established principles to new situations carries some uncertainty or controversy.
 |       |
| 1. Explain and/or use methods that mathematicians or scientists utilize to generate knowledge in a particular field, and be able to critically examine instances in which deviations from these methods may result in less-reliable conclusions.
 |       In this course, discussions focusing on spectroscopy and reaction kinetics support the introduction of quantum mechanics. Students will perform 6 lab experiments designed to deepen instrumentation skills, maintain a lab journal, and complete a final exam. |

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| ***Part B: Check which General Education Program Learning Outcome (GEPLO) is associated with this course.  NOTE: Course does NOT need to associate with all GEPLOs*** |
| **Associated** | **GEPLO** | **Course content that addresses the checked GEPLO:** |
| **X** | 1. Describe and/or apply principles and methods that are necessary to understand the physical and natural world.
 |       Students develop solutions to common environmental dilemmas using mathematical computations and conduct lab experiments with different formulas to develop a deeper understanding of the scientific method. Lab experiments are conducted and evaluated via rubric. |
|  | 1. Compare and contrast relationships within and between human cultures.
 |       |
| **X** | 1. Communicate effectively in writing, using conventions appropriate to various contexts and diverse audiences.
 |       Students will identify an opposite solution to their hypothesis presented through research conducted during final project. This solution will be presented as a written report, evaluated via rubric.  |
|  | 1. Use oral communication to effectively convey meaning to various audiences.
 |       |
| **X** | 1. Find, evaluate and use authoritative and/or scholarly information to comprehend a line of inquiry.
 |      Students identify a common environmental dilemma, develop a hypothesis, and conduct research to address potential solutions. Research is presented via final project delivered orally in class. |
|  | 1. Think critically and analytically about an issue, idea or problem, considering alternative perspectives and reevaluation of one’s own position.
 |       |
|  | 1. Apply numerical/mathematical concepts in order to illustrate fundamental concepts within fields of study.
 |       |
|  | 1. Describe the importance of diverse experiences, thoughts and identities needed to be effective in working and living in diverse communities and environments.
 |       |
|  | 1. Apply knowledge gained from courses in different disciplines to new settings and complex problems.
 |       |

***Part C: Course requirements to be met by the instructor.***

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| **Course Requirements:** | **How will this requirement be met by the instructor?** |
| Course meets the All-University Writing requirement: A minimum of 2500 words of writing shall be required for 3+ unit courses. |  |
| This course introduces students, who have fulfilled their lower division area B requirement in broad, interdisciplinary courses or in a different discipline than the discipline in which this course is offered, to the basic assumptions, principles and methods of the discipline, and how connection is made between these fundamentals and the particular applications emphasized in the course. |  |
| This course requires students to use reasoning skills characteristic of common scientific and mathematical practice to do one or more of the following: solve problems, interpret observations, make predictions, design experiment for the testing of hypotheses, or prove theorems. (Examples given should illustrate how these skills are used throughout the course.) |  |
| Both, past successes and current uncertainties in science or mathematics, are well represented in the course, in order that the cumulative, historical nature of the development of science and mathematics can be illustrated. Give examples covered in the course of (a) older, well-established laws and theories that are no longer debated in scientific and mathematical circles, and (b) issues where either fundamental questions remain unanswered or where the application of well-established principles to new situations carries some uncertainty or controversy. |  |
| Does this course have a prerequisite, other than completion of LDGE requirements? | [ ] YES [ ] NO |
| Does this course fulfill requirements for a major by the academic unit in which the course is offered? (Check the YES box even if the course counts as an elective in the major) | [ ] YES [ ] NO |
| If you answered yes to either of the above, explain why the GE committee should make an exception for this course. Please describe how this course is designed to provide valuable and appropriate learning experiences to both majors and non-majors. |