GENERAL EDUCATION COMMITTEE

REPORT TO

THE ACADEMIC SENATE

GE-001-256

New GE course proposal:

Philosophy 3550 – Artificial Intelligence for Thinking Humans: A History
New GE Area 5D
Upper Division Scientific Inquiry or Quantitative Reasoning

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| General Education Committee | Date: 3/11/2026 |
| Executive Committee<br>Received and Forwarded | Date: 3/11/2026 |
| Academic Senate | Date: 3/18/2026<br>First Reading |

## Background

History and core concepts of artificial intelligence for understanding its social significance. Early rule-based AI and the more recent development of data-based processing by machine learning. History of development of AI for object recognition, game design, robotics, and natural language processing.

Students will be able to:
1. Explain the early stages of historical development of two types of artificial intelligence, namely rule-based AI developing from mathematical logic and AI using machine learning developing from neuroscience.
2. Explain the concepts of data and data collection according to rule-based AI and machine learning, and identify and explain limitations of each.
3. Identify and explain ethical and cultural impacts of AI due to these limitations.
4. Explain the historical development of the application of AI to the real-world behavior of robots that use both rule-based AI and machine learning, and identify and explain the limitations of each.
5. Research a current development in AI and either write a historically oriented essay contextualizing its capabilities and limitations or produce at least 1500 words in support of an in-person or video presentation of this research project.

The Core Course Content (CCC) is:
1. Required Content: the historical development of AI and, due to AI's power and limitations, this development's impact on ethics and culture.
2. Required Content: use of different methodologies by different forms of AI, namely methods of deductive logic used by rule-based AI and methods of empirical science used by machine-learning AI.
3. The assignment of a research project on a current development in AI that involves at least 1500 words of writing (either an essay or writing in support of a presentation of this research project).

As an Option Requirement, PHL 3550 plays the role of introducing students to the historical context of current developments in AI, in terms of the development of the different techniques used by rule-based AI and machine learning, and the relative success and current dominance of machine learning.
The following matrix relating the STS Major Program's Program Learning Outcomes (PLOs) and the courses Course Learning Outcomes (CLOs) offers another demonstration of the course's role in the Program's curriculum. Each one of the STS PLOs is addressed by at least one CLO.

| STS Program Learning Outcomes | CLO 1 | CLO 2 | CLO 3 | CLO 4 | CLO 5 |
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| **PLO 1:** Students have facility with scientific concepts and scientific methods of reasoning. | X | X | | | |
| **PLO 2:** Students are proficient in critical thinking | | | | | X |
| **PLO 3:** Students are proficient in written and oral communication. | | | | | X |
| **PLO 4:** Students are able to contextualize science and technology in order to identify, analyze, and | X | | X | X | |

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| influence the interrelation between science and society. | | | | | |
| **PLO 5:** Students are proficient in research skills. | | | | | X |

Critical Thinking: research project on a current development in AI. This assignment will require students to give reasons for thinking that the current development in AI either does or doesn't adequately address the technology's limitations, including limitations that give rise to ethical and social consequences. The assessment instrument is a research project involving at least 1500 words of writing.
Information Literacy: research project on a current development in AI. The assignment will require students to seek a number of sources in providing reasons. This research project is evidence for assessment.
Civic Literacy: research project on a current development in AI. This assignment will require that students consider the current development in terms of the technology's limitations that give rise to ethical and social consequences. This research project is evidence for assessment.
Written Communication: at least three writing assignments including a research project involving at least 1500 words of writing (either an essay or writing in support of a presentation of this research). This research project is evidence for assessment.

PHL 3550 provides a history of AI that, by assuming no technical background, allows all CPP students to better understand the current development of AI. AI is widely expected to affect nearly all aspects of our lives, and with this pervasive influence, students need to have a grasp of AI's capabilities and limitations. PHL 3550 will provide this understanding by describing the historical rivalry between rule-based AI, where AI functioning is coded, and machine learning, where AI develops algorithms from the processing of large amounts of training data. Machine learning has become dominant, but its method of learning from training data makes it vulnerable to a range of problems (e.g. algorithmic bias). The course's explanation of the vulnerabilities of rule-based AI and machine learning help students evaluate risks and benefits, and establish the civic-minded understanding needed to consider AI's regulation. The course requires a historically oriented research project which will help students' develop writing and critical thinking skills, and information and civic literacy. The final essay requires students to explain the development of new AI technology in terms of its development from earlier AI, and ask them to consider whether the new development addresses ethical and social problems of earlier AI.
The following matrix relating GE Area 5D rubrics with Class Learning Outcomes (CLOs) and Core Course Content (CCC) further shows that the course content is aligned with the rubrics.

| GE Area 5D:<br>Upper Division Scientific Inquiry and Quantitative Reasoning | Evidence | Course Learning Outcomes (CLOs)<br>See list in section IIA | Core Course Content (CCCs)<br>See list in section IIB |
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| **I.a. Area:** Course content centers the study of scientific theories, concepts and data about the physical and/or biological aspects of the world. | II.A. CLOs<br>II.B. Core Course Content<br>III.C. GE Area<br>III.D. Syllabus | CLO 2 | CCC 2 |
| **I.b. Area**: Course content teaches students to understand and appreciate scientific principles and the scientific method, as well as the potential limits of | II.A. CLOs<br>II.B. Core Course Content | CLOs 1, 2 | CCC 2 |

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| scientific endeavors and the value systems and ethics associated with human inquiry. | III.C. GE Area<br>III.D. Syllabus | | |
| **I.c. Area**: Course content presents the relationship between science, technology, and civilization and the effect science and technology have on culture and human values. | II.A. CLOs<br>II.B. Core Course Content<br>III.C. GE Area<br>III.D. Syllabus | CLO 3 | CCC 1 |
| **I.d. Area**: Course content incorporates the application and generalization of basic scientific or quantitative knowledge from the foundational courses to real world or practical problems. | II.A. CLOs<br>II.B. Core Course Content<br>III.C. GE Area<br>III.D. Syllabus | CLO 4 | CCC 3 |
| **II.a. Policy:** The course's assignments assess the GE SLO for Critical Thinking | III.B. GE SLOs<br>III.D. Syllabus | | |
| **II.b. Policy**: The course's assignments assess the GE SLO for Information Literacy. | III.B. GE SLOs<br>III.D. Syllabus | | |
| **II.c. Policy:** The course's assignments assess the GE SLO for EITHER Intercultural Engagement OR Civic Literacy | III.B. GE SLOs<br>III.D. Syllabus | | |
| **II.d. Policy**: The course's assignments assess the GE SLO for EITHER Written Communication, Oral Communication, or Quantitative Literacy. | III.B. GE SLOs<br>III.D. Syllabus | | |
| **II.e. Policy:** The course is designed to be inclusive and open to all students (e.g., not major-specific coursework) | II.B. Core Course Content<br>III.D. Syllabus | | |
| **II.f. Policy:** The course's syllabus reflects what is described in the ECO, is appropriate for GE students, includes the GEMPS, and identifies the GE SLOs. | III.D. Syllabus | | |
| **II.g. Policy:** The course focuses attention on understanding the interrelationship among the disciplines and examines idea in broader, more integrative ways. | II.A. CLOs<br>II.B. Core Course Content<br>III.C. GE Area<br>III.D. Syllabus | CLO 1 | CLO 2 |

To provide justification for criteria not evidenced by CLOs or CCCs:
II.a-II.b. Policy: The research project in core content can be used to assess the GE SLOs for Critical Thinking and Information Literacy.
II.c. : The research project in core content can be used to assess the GE SLO for Civic Literacy.
II.d. : The research project in core content can be used to assess the GE SLO for Written Communication.
II.e. The course is oriented to students without a technical background in AI or in general.

## Resources Consulted

PHL provided both an ECO and example syllabus for the course, uploaded to Curriculog.

On November 26, 2025, General Education Committee sent out a solicitation email to the following constituencies:

- Department chairs
- Deans and associate deans

We asked to provide input via online survey to ensure that new GE course proposals aligned with the existing GE policy, including learning outcomes and concerns surrounding expertise. Responses were collected through mid-December. GE Committee received **no responses** about this course.

## Discussion

GE Committee received this referral on October 30, 2025. This course is being evaluated to ensure compliance with CPP's General Education Policy (GE-001-245), passed by the Senate in 2024.

This course is applying for **GE Area 5D Upper-Division Scientific Inquiry or Quantitative Reasoning**. In addition to meeting the core subject matter requirements for this area, new courses must include the learning outcomes **Critical Thinking** and **Information Literacy**, along with meaningful assessment of those outcomes in both the ECO and the syllabus. For this upper-division GE, departments must also include either **Intercultural Engagement** or **Civic Literacy**, and one of the following: **Written Communication**, **Oral Communication**, or **Quantitative Literacy**.

This course examines the history and core concepts of artificial intelligence. The course focuses on the development of rule-based AI and machine learning, including the underlying methodologies in logic and neuroscience, but also their applications in robotics and natural language processing. Students will analyze the scientific principles, limitations, and ethical/cultural implications of AI technologies. The culminating project of the course is a historically oriented research essay on a current AI development that evaluates its capabilities and social impact. Assessment includes concept quizzes, participation, news summaries, reading response papers, a midterm, a comprehensive final exam, and a substantial research project.

This course strongly emphasizes the scientific inquiry elements of GE Area 5D, centering on scientific theories and methodologies that underlie artificial intelligence. It also clearly presents the relationship between science technology, and civilization by analyzing the implications of AI on social-ethical and even regulatory implications. The research project requires students to apply scientific understanding to real-world AI development.

The course does well to meet the GE learning outcomes for GE Area 5D. It claims Critical Thinking, Information Literacy, Civic Literacy, Intercultural Engagement, and Written Communication. The course only need to claim either Civic Literacy or Intercultural Engagement, which the department may consider in having to provide artifacts for university-level assessment in the future. The outcomes are measured through the substantial research project, but also through additional writing assignments, reading responses, participation, quizzes, and exams.

The syllabus should also include the copy of the text of the GE Meaning and Purpose Statement.

## Recommendation

On March 11, 2026, the GE Committee voted 9-1-0-2 (Conditional Accept – Revise and Resubmit – Reject – Abstain) to **conditionally accept** this proposal. One member was absent.

Conditional acceptance indicates that the required revisions are limited to relatively minor editorial changes. Given the volume of new proposals under review and the limited timeline for committee action, the GE Committee is utilizing this layered review process to allow timely advancement of proposals while ensuring that required revisions are completed.

The proposal has been returned to the Department Chair on Curriculog for the requested revisions, with a deadline of April 6, 2026. The proposal's originator has also been notified. Upon confirmation that the revisions have been satisfactorily addressed, the course should move forward as approved.

If the requested revisions are not submitted by the deadline, the GE Committee's recommendation will be withdrawn. Accordingly, the GE Committee would recommend that the Academic Senate not approve the course at that time and defer action pending confirmation until the required revisions have been completed.