History and Philosophy of Science Certificate

Professor Alberto A. Martínez, Director

The History and Philosophy of Science (HAPS) Certificate provides undergraduate students an opportunity to gain a coherent, cross-disciplinary command of the methods and findings that the liberal arts contribute to our understanding of the sciences. Students analyze the dynamic development, concepts, and roles in society of various sciences, as well as the personal, dramatic struggles of famous scientists. Students must complete two required courses in history of science, two specific courses in philosophy of science, as well as two electives from a list of pre-approved courses in several departments. Thus, our program requires 18 semester hours of coursework, of which at least 12 semester hours must be upper-division and at least 9 semester hours must be completed in residence at UT Austin. Each semester, the list of approved courses that meet the requirements will be available in the undergraduate advising offices of the Department of History and the Department of Philosophy.

Students apply for transcript-recognized undergraduate academic certification when they complete their undergraduate degree or the certificate program, whichever comes later (up to a year after earning Bachelor’s degree). Students must fulfill the following requirements, which do not need to be taken in any particular sequence:

<table>
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<tr>
<th>Course Number and Title</th>
<th>18 Hours Total</th>
<th>Completed</th>
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<tr>
<td><strong>Both of these History courses are required:</strong></td>
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<tr>
<td>HIS 322D <em>Scientific Revolution of the 17th Century</em></td>
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<td>HIS 322M <em>History of Modern Science</em></td>
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<td><strong>Symbolic logic is required:</strong></td>
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<tr>
<td>PHL 313 <em>Introductory Symbolic Logic</em></td>
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<td><em>Note: the following courses may also fulfill this requirement,</em></td>
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<td><em>but are restricted to students in certain programs or are not</em></td>
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<td><em>regularly taught: C S 311 or 311H Discrete Math for</em></td>
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<td><em>Computer Science; PHL 313K Logic, Sets, and Functions; PHL 313Q</em></td>
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<td><em>Logic and Scientific Reasoning; or PHL 363 Scientific Method.</em></td>
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<td><strong>Choose one of these Philosophy of Science courses:</strong></td>
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<tr>
<td>PHL 316K <em>Science and Philosophy</em></td>
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<td>PHL 322 <em>Science and the Modern World</em></td>
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<td>PHL 363L <em>Topics in Philosophy of Science</em> (any topic, see below)</td>
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<td><strong>Choose two courses from the list of Electives, next page,</strong></td>
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<td><strong>next page,</strong> without repeating previous selections. Write them here:**</td>
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☐ No more than 9 hours of coursework for the certificate may overlap with courses used for your major  ☐ At least 9 hours in residence  ☐ At least 12 hours upper-division  ☐ All coursework must be for a letter grade
Approved elective courses for History and Philosophy of Science Certificate

HIS 317L 14-Building America*
HIS 317N Discovery History*
HIS 322C Cultural Hist. of World Sci. to 1650
HIS 322G History of the Modern Life Sciences
HIS 329P History of the Atomic Bomb
HIS 350L Environmental History*
HIS 350L Global Environmental History*
HIS 350L Medicine in African History*
HIS 350L Race, Science, and Racism*
HIS 350L 32-The Galileo Affair*
HIS 350L 63-Electrification*
HIS 350L 64-Einstein in an Age of Conflicts*
HIS 350R 7-Enivr Hist of North Amer*
HIS 350R 18-Women in Sickness & Health*
PHL 363L 1-Philosophy of Biology
PHL 363L Space, Time and Infinity
PHL 363L Concept. Found. of Quantum Mechanics
PHL 325M Medicine, Ethics, and Society
PHL 344M Philosophy of Math
PHL 363 Scientific Method***
C C 348 14-Ancient Greek Medicine*
C C 348 20-Roman Philosophy and Science*
CTI 372 Darwin and the Politics of Evolution
UGS 303 Science & Art: Then and Now*

HIS 362G Women in Science*
HIS 365G 5-Science, Ethics, and Society*
HIS 366N Global History of Disease*
HIS 366N 16-Biology, Behavior, and Injustice*
HIS 329U Perspectives on Science and Math **
PHL 329U Perspectives on Science and Math **
PHL 316K Science and Philosophy***
PHL 322 Science and the Modern World
PHL 325C Environmental Ethics
PHL 363L Topics in Philosophy of Science (all topics) may be repeated if topic varies such as:
PHL 363L Darwin and Design
PHL 363L History of the Philosophy of Science
PHL 363L 4-Philosophy of Geometry
PHL 365 Health and Justice*
PHL 365 2-Intro to Cognitive Science*
PHL 375M Philosophy of Math and Physics*
ANT 324L Science, Magic, & Religion*
AST 350L History and Philosophy of Astronomy
BIO 301C History of Biology*
GSD 361F Squaring the Vienna Circle
PHY 341 History of Physics*
PHY 341 5-Pseudoscience*

Notes:

* Only the specific titles of HIS 317L, HIS 317N, HIS 350L, HIS 350R, HIS 362G, HIS 366N, PHL 365, PHL 375M, ANT 324L, BIO 301C, CC 348, PHY 341, and UGS 303 (marked above with *) will count for the certificate.

** HIS 329U and PHL 329U: Only one of these courses will count and they are often restricted to UTeach Natural Sciences students.

*** PHL 316K and PHL 363: Only one of these courses will count.

If a course is officially cross-listed with an approved course, then it would count toward the certificate (HIS 366N-topic 16 = CTI 370-topic 2).

Additional courses might be added in future catalogs.