The Major in Ethics, History, and Public Policy

Alex John London, Director
Office: Baker Hall 150A
Email: ajlondon@andrew.cmu.edu
http://www.cmu.edu/hss/ehpp/

The B.A./B.S. in Ethics, History, and Public Policy is an interdepartmental major offered jointly by the Departments of History and Philosophy. It prepares students for leadership positions by providing them with a rigorous, interdisciplinary humanistic and social-scientific education. It also serves as an excellent springboard for graduate study in a wide variety of disciplines such as law, public policy, ethics, and advocacy. The program focuses equally on the historical understanding of how modern-day problems have evolved, and the importance of developing clear criteria for ethical decision-making. The capstone project course provides students with the opportunity to engage with real-world public policy challenges using the methods, theories, and knowledge that they have gained through the major. Offered jointly by the departments of History and Philosophy, the B.A./B.S. in EHPP encourages specialization, internship experiences, and research in a wide range of policy areas.

Curriculum

Students graduating with a primary major in Ethics, History, and Public Policy may elect to receive either a Bachelor of Arts or a Bachelor of Science Degree (additional requirements apply; see below). Basic requirements include 120 units encompassing 9 units in Economics, 36 units in History, 36 units in Philosophy, 27 units of elective courses, and a 12-unit senior capstone course. This program may also be taken as an additional (e.g., second) major. All courses toward the major must be taken for a letter grade, and 79-200 and 79-350 must be passed with a grade of “C” or better.

I. Economics Requirements (9 units)
Choose one of the following:
73-100 Principles of Economics 9
88-220 Policy Analysis I 9

II. History Core (36 units)
Choose one 9-unit course from each category below:
Policy History (9 units)
79-300 History of American Public Policy 9
U.S. History (9 units)
79-240 Development of American Culture 9
79-249 20th/21st Century U.S. History 9
Non-U.S. History (9 units)
79-202 Flesh and Spirit: Early Modern Europe, 1400-1750 9
79-203 Social and Political Change in 20th Century Central and Eastern Europe 9
79-205 20th/21st Century Europe 9
79-207 Development of European Culture 9
79-222 Between Revolutions: The Development of Modern Latin America 9
79-223 Mexico: From the Aztec Empire to the Drug War 9
79-226 African History: Earliest Times to 1780 9
79-227 African History: Height of Trans-Atlantic Slave Trade to the End of Apartheid 9
79-229 Origins of the Arab-Israeli Conflict, 1880-1948 9
79-230 Arab-Israeli Conflict and Peace Process since 1948 9
79-237 Comparative Slavery 9
79-251 India/America: Democracy, Diversity, Development 9
79-261 The Last Emperors: Chinese History and Society, 1600-1900 9
79-262 Modern China: From the Birth of Mao ... to Now 9

Students who choose the appropriate specialized track in the Logic and Computation major (namely, sample 2 of the Curricula listed below) can be admitted to the M.S. program in Language and Information Technology offered by the School of Computer Science. To complete the discussion of departmental programs, it should be mentioned that the department sponsors as part of the Program in Pure and Applied Logic (offered jointly with the Departments of Computer Science and Mathematics) a Ph.D. in Logic, Computation, and Methodology.
79-264  Tibet and China: History and Propaganda 9
79-265  Russian History: From the First to the Last Tsar 9
79-266  Russian History: From Communism to Capitalism 9
79-307  Religion and Politics in the Middle East 9

Historical Methods and Approaches (9 units)
79-200  Introduction to Historical Research & Writing 9

III. Philosophy Core 36 units
Choose one 9-unit course from each category below. No more than 9 units at the 100 level may be counted toward this requirement.

Ethics (9 units)
80-130  Introduction to Ethics 9
80-230  Ethical Theory 9

Political Philosophy (9 units)
80-135  Introduction to Political Philosophy 9
80-334  Social and Political Philosophy 9

Foundations of Social Science (9 units)
80-221  Philosophy of Social Science 9
80-321  Causation, Law, and Social Policy 9
80-324  Philosophy of Economics 9
80-337  Philosophy, Politics & Economics 9

Applied Philosophy (9 units)
80-136  Social Structure, Public Policy & Ethics 9
80-244  Environmental Ethics 9
80-245  Medical Ethics 9
80-247  Ethics and Global Economics 9
80-335  Deliberative Democracy: Theory and Practice 9
80-348  Health Development and Human Rights 9
80-447  Global Justice 9

IV. Senior Capstone Project Course 12 units
79-449  EHPP Project Course 12 [cross-listed]
80-449  EHPP Project Course 12

The Ethics, History and Public Policy Project Course is required for the Ethics, History and Public Policy major and is taken in the fall semester of the senior year. In this capstone course, Ethics, History and Public Policy majors carry out a collaborative research project that examines a compelling current policy issue that can be illuminated with historical research and philosophical and policy analysis. The students develop an original research report based on both archival and contemporary policy analysis and they present their results to a client organization in the community.

V. Elective Courses 27 units
Choose any three courses from any category or categories shown below. Substitution of elective courses that cohere with a student's interest or concentration may be allowed after consultation with and approval from the Director.

Engineering and Public Policy (some courses have prerequisites; see EPP catalog listing)
19-424  Energy and the Environment 9

Business
70-311  Organizational Behavior 9
70-321  Negotiation and Conflict Resolution 9
70-332  Business, Society and Ethics 9
70-364  Business Law 9
70-365  International Trade and International Law 9
70-430  International Management 9

Economics (some courses have prerequisites; see Economics catalog listing)
73-148  Environmental Economics 9
73-310  Evolution of Economic Ideas and Analysis 9
73-352  Public Economics 9
73-358  Economics of the Environment and Natural Resources 9
73-359  Benefit-Cost Analysis 9

73-365  Firms, Market Structures, and Strategy 9
73-372  International Money and Finance 9
73-375  History of Money and Monetary Policy 9
73-408  Law and Economics 9
73-476  American Economic History 9

English
76-492  Rhetoric of Public Policy 9

History
Courses from the EHPP History Core (above) may be taken as electives only if they are not being used to fulfill the core requirement. Double counting is not permitted.
79-217  The War in Vietnam 9
79-221  Development and Democracy in Latin America 9
79-231  American Foreign Policy: 1945-Present 9
79-233  The United States and the Middle East since 1945 9
79-242  African American History: Reconstruction to the Present 9
79-253  American Massacres in History and Memory 9
79-267  The Soviet Union in World War II: Military, Political, and Social History 9
79-288  Bananas, Baseball, and Borders: Latin America and the United States 9
79-298  Mobile Phones & Social Media in Development & Human Rights: A Critical Appraisal 6
79-299  From Newton to the Nuclear Bomb: History of Science, 1750-1950 9
79-301  History of Surveillance: From the Plantation to Edward Snowden 6
79-303  Pittsburgh and the Transformation of Modern Urban America 6
79-305  Moneball Nation: Data in American Life 9
79-310  Modern U. S. Business History: 1870 to the Present 9
79-315  The Politics of Water: Global Controversies, Past and Present 9
79-320  Women, Politics, and Protest 9
79-325  U.S. Gay and Lesbian History 6
79-331  Body Politics: Women and Health in America 9
79-336  Oil & Water: Middle East Perspectives 6
79-338  History of Education in America 9
79-339  Juvenile Delinquency and Film (1920 to "The Wire") 9
79-340  Juvenile Delinquency and Juvenile Justice 9
79-342  Introduction to Science and Technology Studies 9
79-349  The Holocaust in Historical Perspective 9
79-358  Nazi Ghettos: From Spatial Segregation to Killing Zones 9
79-370  Disasters in American History (2): Epidemics & Fires 6
79-371  African American Urban History 9
79-374  American Environmental History: Critical Issues 9
79-381  Energy and Empire: How Fossil Fuels Changed the World 9
79-389  Stalin and Stalinism 9

Philosophy
Courses from the EHPP Philosophy Core (above) may be taken as electives only if they are not being used to fulfill the core requirement. Double counting is not permitted.
80-256  Modern Moral Philosophy 9
80-305  Choices, Decisions, and Games 9
80-405  Game Theory 9

Institute for Politics and Strategy
84-310  International Political Economy and Organizations 9
Students should consult their advisor when planning their program. as early as the start of the sophomore year, or even in the first year. this program can be completed in as few as two years; not that it must be. The above sample program is presented as a two-year (junior-senior year) plan for completing EHP major requirements. Its purpose is to show that this program can be completed in as few as two years; not that it must be. Students may enter the EHP major, and begin major course requirements, as early as the start of the sophomore year, or even in the first year. Students should consult their advisor when planning their program.

### The Major in Linguistics

**Tom Werner, Director**  
Office: Baker Hall 155F  
Email: twerner@andrew.cmu.edu

Linguistics is the study of human language, and it encompasses a broad spectrum of research questions, approaches and methodologies. Some linguists are concerned with the cognitive aspects of language learning, production and comprehension; some are concerned with language as a social and cultural phenomenon; others engage in the analysis of linguistic form and meaning, some from a functional and others from a formal perspective. There are also computational approaches to linguistics with both applied and theoretical goals.

The major in Linguistics reflects the multidisciplinary character of the field and of the Linguistics faculty here at Carnegie Mellon, offering a program which provides students with the fundamental tools of linguistic analysis while maintaining a focus on the human context in which language is learned and used. The major is available as either a primary major or an additional major. It is an ideal choice for students with a general interest in their own or other languages, and combines well thematically with studies in any of the departments represented in the major.

**Curriculum**

The Linguistics major requires a total of 12 courses, which includes 2 semesters of language study. In addition, primary majors in Linguistics are required to write a Senior Thesis in their final year. At least three courses (not including specific language courses) must be at the 300-level or higher. All courses counted towards the major must be taken for a letter grade and passed with a grade of "C" or above. For Dietrich College students, up to 2 of these courses may be counted also as satisfying the college's general education requirements (as long as the double-counting maximum established by the college is not exceeded), with permission of the major director. Students from other colleges may fulfill their Humanities requirements using courses taken towards the Linguistics Major. However, no courses may be counted simultaneously towards the Linguistics Major and any other major or minor.

**Introductory course**

- **80-180** Nature of Language  
- **9**

**Fundamental Skills**

Take **one** course from each of the following core subject areas:

- **Sounds**
  - **80-282** Phonetics and Phonology I  
  - **9**

- **Structure**
  - **80-280** Linguistic Analysis  
  - **80-285** Natural Language Syntax  
  - **9**

- **Meaning**
  - **80-381** Meaning in Language  
  - **9**
  - **80-383** Language in Use  
  - **9**
  - **76-385** Introduction to Discourse Analysis  
  - **9**

**Breadth**

Take **one** course from each of the following breadth subject areas:

- **Area 1: Language Learning and Language Cognition**
  - **76-420** The Cognition of Reading and Writing: Introduction to a Social/Cognitive Process  
  - **9**
  - **80-281** Language and Thought  
  - **9**
  - **82-280** Learning About Language Learning  
  - **9**
  - **82-383** Second Language Acquisition: Theories and Research  
  - **9**
  - **82-388** Understanding Second Language Fluency  
  - **9**
  - **82-585** Topics in Second Language Acquisition  
  - **9**
  - **85-354** Infant Language Development  
  - **9**
  - **85-421** Language and Thought  
  - **9**

- **Area 2: Discourse, Society and Culture**
  - **76-385** Introduction to Discourse Analysis  
  - **9**
  - **76-386** Language & Culture  
  - **9**
  - **80-283** Syntax and Discourse  
  - **9**
  - **82-273** Introduction to Japanese Language and Culture  
  - **9**
The remaining education in logic, analytic philosophy, mathematics, statistics, and computer science enables students to pursue professional careers or graduate study. The analytic and communication skills developed in the major support a wide range of career choices, including those among the fields of technology, business, and law. Fields of graduate study for which students are well prepared include, for example, computer science, cognitive science, philosophy, logic, and linguistics.

Students who are interested in pursuing this major, or who are pursuing it already, should take note of the Cognitive Science major in the Department of Psychology. That major is so closely related that it is not difficult to pursue it as an additional major, and it provides an intellectually exciting complement.

**Curriculum**

Logic and Computation is a B.S. degree. In their freshman and sophomore years, students are expected to take three courses that provide preparation in computer science, mathematics, and statistics: 15-110 Fundamentals of Programming and Computer Science, 21-127 Concepts of Mathematics, 36-201 Statistical Reasoning and Practice. 80-211 Logic and Mathematical Inquiry is part of the major’s Core Requirements, but should be taken no later than the spring of the sophomore year. This also applies to the computer science sequence 15-122 and 15-150.

**NOTE:** Students should complete the prerequisites before their junior year. It is strongly recommended that students take 80-211 Logic and Mathematical Inquiry no later than the spring of their sophomore year and, if possible, also 15-122 and 15-150. However, with suitable planning and advice from the program director, it is possible to complete the program in two years, beginning in the junior year.

The course requirements for the major consist of seven core courses (including one seminar) and four electives. The core courses provide comprehensive background in logic, computability, and analytic philosophy. 80-310 Formal Logic and 80-150 Nature of Reason must be taken no later than the fall of the junior year. Four advanced electives are chosen in the area of focus, and should support independent research towards fulfilling the senior thesis requirement. In their senior year, students present and discuss their research in 80-511 Thesis Seminar. All courses, if taken at CMU, must be taken for a letter grade and passed with a grade of ‘C-’ or above.

### Prerequisites 29 units

15-110 Principles of Computing 10
21-127 Concepts of Mathematics 10
36-201 Statistical Reasoning and Practice 9

### Logic and Computation Core 69–71 units

80-150 Nature of Reason 9
80-211 Logic and Mathematical Inquiry 9
80-310 Formal Logic 9
80-311 Undecidability and Incompleteness 9
15-122 Principles of Imperative Computation 10
15-150 Principles of Functional Programming 10
80-511 Thesis Seminar 6

### Logic and Computation Electives 36 units

Bearing in mind prerequisites, Logic and Computation majors must complete four advanced courses in areas that use logical and computational tools, such as philosophy, computer science, linguistics, mathematical logic, psychology, or statistics. The sequence of courses, mostly at the 300-level, must be selected in consultation with the program director.

**Sample Curricula**

Here are five samples of Logic and Computation curricula (beyond the core courses), each reflecting a different emphasis.

**Sample 1.** A student interested in Computer Science might take the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-315 Modal Logic</td>
<td>9</td>
</tr>
<tr>
<td>80-413 Category Theory</td>
<td>9</td>
</tr>
<tr>
<td>15-312 Foundations of Programming Languages</td>
<td>12</td>
</tr>
<tr>
<td>15-317 Constructive Logic</td>
<td>9</td>
</tr>
</tbody>
</table>

**Sample 2.** A student interested in Language and Information Technology might take the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-280 Linguistic Analysis</td>
<td>9</td>
</tr>
</tbody>
</table>
The Major in Philosophy

Joel Smith, Director
Office: Baker Hall 161C
Email: joelms@cmu.edu

The Major in Philosophy is intended to be flexible and to facilitate additional majors in other fields (including majors with a strong professional focus). It provides students with a broad humanities education and sharpens their analytical skills. We encourage, but do not require, students to choose a thematic concentration through their electives. Sample curricula emphasizing Pre-Law, Metaphysics and Epistemology, Ethics and Social Philosophy, and Philosophy of Mind are suggested below. However, alternative emphases can be proposed and approved by the Director. The Major in Philosophy is a B.A. degree.

Curriculum
In addition to the general education requirements for the student’s college, Philosophy primary majors and additional majors must complete 80-100 Introduction to Philosophy and nine Philosophy courses in the Areas listed below. The 80-100 requirement must be fulfilled before the first semester of the junior year. Only two of the remaining nine courses may be at the 100-level, and two of the nine courses must be at the 300-level or higher. All ten courses, if taken at CMU, must be taken for a letter grade and passed with a grade of “C” or above. Courses from other universities, as well as an 80-100 skills test, may be substituted with permission of the Director. Students are to choose one course out of each of the Areas 1-4, two courses out of Area 5, and may freely select three courses in Area 6. As per the requirement of the College of H&SS, a student's Freshman Seminar course may not count toward the fulfillment of the major requirements.

Logic and Computation Degree Requirements (minimum) 360 units

Area 1: Values and Normative Theory 9 units

Introduction to Philosophy 9 units

Area 2: Philosophy of Mind/Language/Metaphysics 9 units

One of the following:
80-180 Nature of Language
80-270 Philosophy of Mind
80-271 Philosophy and Psychology
80-276 Philosophy of Religion
80-280 Linguistic Analysis
80-281 Language and Thought
80-282 Phonetics and Phonology I
80-283 Syntax and Discourse
80-284 Invented Languages
80-371 Philosophy of Perception
80-380 Philosophy of Language
80-381 Meaning in Language
80-382 Phonetics and Phonology II
80-383 Language in Use
80-384 Linguistics of Turkic Languages
80-580 Seminar on the Philosophy of Language

Area 3: Logic/Philosophy of Mathematics 9 units

One of the following:
80-110 Nature of Mathematical Reasoning
80-210 Logic and Proofs
80-211 Logic and Mathematical Inquiry
80-212 Arguments and Logical Analysis
80-310 Formal Logic
80-311 Undecidability and Incompleteness
80-312 Philosophy of Mathematics
80-315 Modal Logic
80-411 Proof Theory
80-413 Category Theory
80-513 Seminar on Philosophy of Mathematics
80-514 Categorical Logic

Area 4: Epistemology/Metaphysics 9 units

One of the following:
80-150 Nature of Reason
Sample Curricula

Here are four sample curricula, reflecting different emphases.

1. For an emphasis on Law & Social Policy, a student might take:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>80-334 Social and Political Philosophy</td>
</tr>
<tr>
<td>Area 2</td>
<td>80-180 Nature of Language</td>
</tr>
<tr>
<td>Area 3</td>
<td>80-211 Logic and Mathematical Inquiry</td>
</tr>
<tr>
<td>Area 4</td>
<td>80-208 Critical Thinking</td>
</tr>
<tr>
<td>Area 5</td>
<td>80-150 Nature of Reason</td>
</tr>
<tr>
<td>Area 6</td>
<td>80-250 Ancient Philosophy</td>
</tr>
</tbody>
</table>

2. For an emphasis on Philosophy of Science, a student might take:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>80-136 Social Structure, Public Policy &amp; Ethics</td>
</tr>
<tr>
<td>Area 2</td>
<td>80-371 Philosophy of Perception</td>
</tr>
<tr>
<td>Area 3</td>
<td>80-211 Logic and Mathematical Inquiry</td>
</tr>
<tr>
<td>Area 4</td>
<td>80-220 Philosophy of Science</td>
</tr>
<tr>
<td>or Area 5</td>
<td>80-221 Philosophy of Social Science</td>
</tr>
</tbody>
</table>

3. For an emphasis on Ethics and Social Philosophy, a student might take:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>80-230 Ethical Theory</td>
</tr>
<tr>
<td>Area 2</td>
<td>80-276 Philosophy of Religion</td>
</tr>
<tr>
<td>Area 3</td>
<td>80-110 Nature of Mathematical Reasoning</td>
</tr>
<tr>
<td>Area 4</td>
<td>80-221 Philosophy of Social Science or 80-321 Causation, Law, and Social Policy</td>
</tr>
<tr>
<td>or Area 5</td>
<td>80-250 Ancient Philosophy</td>
</tr>
<tr>
<td>Area 6</td>
<td>80-321 Causation, Law, and Social Policy</td>
</tr>
</tbody>
</table>

4. For an emphasis on Philosophy of Mind, a student might take:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>80-130 Introduction to Ethics</td>
</tr>
<tr>
<td>Area 2</td>
<td>80-270 Philosophy of Mind</td>
</tr>
<tr>
<td>Area 3</td>
<td>80-211 Logic and Mathematical Inquiry</td>
</tr>
<tr>
<td>Area 4</td>
<td>80-201 Epistemology</td>
</tr>
<tr>
<td>Area 5</td>
<td>80-251 Modern Philosophy</td>
</tr>
<tr>
<td>Area 6</td>
<td>80-257 Nietzsche</td>
</tr>
<tr>
<td>or Area 7</td>
<td>80-371 Philosophy of Perception</td>
</tr>
<tr>
<td>or Area 8</td>
<td>80-521 Seminar on Formal Epistemology</td>
</tr>
</tbody>
</table>

Additional Major

Students who want an additional major in Philosophy must fulfill the same departmental requirements as primary majors in Philosophy.

The M.A. Program in Philosophy

The Department of Philosophy also offers a graduate M.A. degree in Philosophy, which culminates with the writing of a master's thesis. It is ordinarily a two-year program, but students in the Philosophy major are able to complete the additional requirements in one year. Interested students are invited to visit the department's homepage for further information: www.cmu.edu/dietrich/philosophy/.

Philosophy Department Minors

All majors in the Department allow for minors; in addition, there is a Minor in Ethics and an interdepartmental minor in Linguistics. The requirements are again designed to be flexible and to allow students to tailor courses to their special interests, while providing some breadth.

The Minor in Ethics

With the explosive growth of science and technology have come both new possibilities and new problems. Developments in medicine, in biology, in chemistry, in nuclear engineering or in computer science all have costs as well as benefits, and they present us with many hard choices. Some of the hardest of these new problems are moral problems.

The Philosophy Department’s Minor in Ethics introduces students to central ethical concepts and theories proposed and defended by the great philosophers of the past; it provides an understanding of how these theories
and concepts can be applied to practical problems. This background in ethical theory and its applications should help students to respond more sensitively and appropriately to the new and unavoidable ethical dilemmas that technologies, businesses, unions, and branches of government must face.

Curriculum

Ethics minors must complete five philosophy courses in the areas listed below. All five required courses, if taken at CMU, must be taken for a letter grade and passed with a grade of a "C" or above, except 80-294 Ethics Internship / Practicum, which may be taken pass/fail.

Ethics Core Courses 27 units
Complete three courses from any of the following areas with at least two courses at the 200-level or higher.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-130</td>
<td>Introduction to Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-135</td>
<td>Introduction to Political Philosophy</td>
<td>9</td>
</tr>
<tr>
<td>80-136</td>
<td>Social Structure, Public Policy &amp; Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-230</td>
<td>Ethical Theory (AY 17-18 is the last year this will be offered)</td>
<td>9</td>
</tr>
<tr>
<td>80-241</td>
<td>Ethical Judgments in Professional Life</td>
<td>9</td>
</tr>
<tr>
<td>80-242</td>
<td>Conflict and Dispute Resolution</td>
<td>9</td>
</tr>
<tr>
<td>80-243</td>
<td>Ethics of Leadership</td>
<td>9</td>
</tr>
<tr>
<td>80-244</td>
<td>Environmental Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-245</td>
<td>Medical Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-246</td>
<td>Moral Psychology</td>
<td>9</td>
</tr>
<tr>
<td>80-247</td>
<td>Ethics and Global Economics</td>
<td>9</td>
</tr>
<tr>
<td>80-248</td>
<td>Engineering Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-330</td>
<td>Research Ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-334</td>
<td>Social and Political Philosophy</td>
<td>9</td>
</tr>
<tr>
<td>80-335</td>
<td>Deliberative Democracy: Theory and Practice</td>
<td>9</td>
</tr>
<tr>
<td>80-336</td>
<td>Philosophy of Law</td>
<td>9</td>
</tr>
<tr>
<td>80-348</td>
<td>Health Development and Human Rights</td>
<td>9</td>
</tr>
<tr>
<td>80-430</td>
<td>Ethics and Medical Research</td>
<td>9</td>
</tr>
<tr>
<td>80-431</td>
<td>Meta-ethics</td>
<td>9</td>
</tr>
<tr>
<td>80-447</td>
<td>Global Justice</td>
<td>9</td>
</tr>
</tbody>
</table>

Ethics Electives 18 units
Complete two courses at the 200-level or higher. These courses may be additional courses from Ethics Core list above. Other applicable philosophy courses include the following: 80-294 or 80-495
Appropriate courses in ethics from other departments may count with the permission of the faculty advisors for this minor.

*Courses typically only offered on the CMU-Q campus.

The Minor in Linguistics

The Interdepartmental Minor in Linguistics is jointly sponsored with the departments of English, Modern Languages, and Psychology. It synthesizes the linguistic related offerings in these departments and provides students with an academic experience that reflects both the interdisciplinary character of the subject and its cross-departmental representation in Dietrich College. Students who wish to receive a minor in Linguistics must complete six courses. For a detailed discussion of the curriculum and the flexible electives, consult the Dietrich College Interdisciplinary Minors section of the catalog.

The Minor in Logic and Computation

The Minor in Logic and Computation provides students with general course work in logic, the theory of computation, and philosophy. Students must complete six courses, among them the following three core courses.

Logic and Computation Core Courses 27 units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-150</td>
<td>Nature of Reason</td>
<td>9</td>
</tr>
<tr>
<td>80-211</td>
<td>Logic and Mathematical Inquiry</td>
<td>9</td>
</tr>
<tr>
<td>or 80-210</td>
<td>Logic and Proofs</td>
<td>9</td>
</tr>
<tr>
<td>80-310</td>
<td>Formal Logic</td>
<td>9</td>
</tr>
<tr>
<td>or 80-311</td>
<td>Undecidability and Incompleteness</td>
<td>9</td>
</tr>
</tbody>
</table>

Logic and Computation Electives 27 units
Students must take two courses in the Philosophy Department at the 300-level or higher, in subjects related to logic and computation, and an additional course at the 300-level or higher in an area that uses logical and computational tools, such as philosophy, computer science, linguistics, mathematics, psychology, or statistics. The choice of electives must be approved by the program director.

The Minor in Philosophy

The Minor in Philosophy allows students to complement their primary majors with a broad philosophical grounding.

Logic/Methodology Requirements 9 units
Complete one course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-110</td>
<td>Nature of Mathematical Reasoning</td>
<td>9</td>
</tr>
<tr>
<td>80-210</td>
<td>Logic and Proofs</td>
<td>9</td>
</tr>
<tr>
<td>80-211</td>
<td>Logic and Mathematical Inquiry</td>
<td>9</td>
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<tr>
<td>80-212</td>
<td>Arguments and Logical Analysis</td>
<td>9</td>
</tr>
<tr>
<td>80-220</td>
<td>Philosophy of Science</td>
<td>9</td>
</tr>
<tr>
<td>80-221</td>
<td>Philosophy of Social Science</td>
<td>9</td>
</tr>
<tr>
<td>80-222</td>
<td>Measurement and Methodology</td>
<td>9</td>
</tr>
<tr>
<td>80-226</td>
<td>Revolutions in Science</td>
<td>9</td>
</tr>
<tr>
<td>80-310</td>
<td>Formal Logic</td>
<td>9</td>
</tr>
<tr>
<td>80-311</td>
<td>Undecidability and Incompleteness</td>
<td>9</td>
</tr>
<tr>
<td>80-312</td>
<td>Philosophy of Mathematics</td>
<td>9</td>
</tr>
<tr>
<td>80-314</td>
<td>Logic and Artificial Intelligence</td>
<td>9</td>
</tr>
<tr>
<td>80-315</td>
<td>Modal Logic</td>
<td>9</td>
</tr>
<tr>
<td>80-321</td>
<td>Causation, Law, and Social Policy</td>
<td>9</td>
</tr>
<tr>
<td>80-322</td>
<td>Philosophy of Physics</td>
<td>9</td>
</tr>
<tr>
<td>80-323</td>
<td>Philosophy of Biology</td>
<td>9</td>
</tr>
<tr>
<td>80-324</td>
<td>Philosophy of Economics</td>
<td>9</td>
</tr>
<tr>
<td>80-411</td>
<td>Proof Theory</td>
<td>9</td>
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<tr>
<td>80-413</td>
<td>Category Theory</td>
<td>9</td>
</tr>
<tr>
<td>80-513</td>
<td>Seminar on Philosophy of Mathematics</td>
<td>9</td>
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<tr>
<td>80-514</td>
<td>Categorical Logic</td>
<td>9</td>
</tr>
<tr>
<td>80-515</td>
<td>Seminar on the Foundations of Statistics</td>
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</tr>
<tr>
<td>80-516</td>
<td>Causality and Learning</td>
<td>Var.</td>
</tr>
<tr>
<td>80-520</td>
<td>Seminar on Philosophy Science</td>
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</tr>
<tr>
<td>80-521</td>
<td>Seminar on Formal Epistemology</td>
<td>Var.</td>
</tr>
</tbody>
</table>

History of Philosophy Requirements 18 units
Complete two courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-150</td>
<td>Nature of Reason</td>
<td>9</td>
</tr>
<tr>
<td>80-226</td>
<td>Revolutions in Science</td>
<td>9</td>
</tr>
<tr>
<td>80-250</td>
<td>Ancient Philosophy</td>
<td>9</td>
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<tr>
<td>80-251</td>
<td>Modern Philosophy</td>
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</tr>
<tr>
<td>80-252</td>
<td>Kant</td>
<td>9</td>
</tr>
<tr>
<td>80-253</td>
<td>Continental Philosophy</td>
<td>9</td>
</tr>
<tr>
<td>80-254</td>
<td>Analytic Philosophy</td>
<td>9</td>
</tr>
<tr>
<td>80-255</td>
<td>Pragmatism</td>
<td>9</td>
</tr>
<tr>
<td>80-256</td>
<td>Modern Moral Philosophy</td>
<td>9</td>
</tr>
<tr>
<td>80-257</td>
<td>Nietzsche</td>
<td>9</td>
</tr>
<tr>
<td>80-258</td>
<td>Hume</td>
<td>9</td>
</tr>
<tr>
<td>80-261</td>
<td>Empiricism and Rationalism</td>
<td>9</td>
</tr>
<tr>
<td>80-262</td>
<td>Introduction to the Philosophy of Bertrand Russell</td>
<td>9</td>
</tr>
<tr>
<td>80-264</td>
<td>William James and Philosophical Psychology</td>
<td>9</td>
</tr>
<tr>
<td>80-363</td>
<td>19th Century Foundations of Science</td>
<td>9</td>
</tr>
</tbody>
</table>

Philosophy Electives 18 units
Complete 18 units in the Philosophy department at the 200-level or higher.

The Honors Program

The Dietrich College Senior Honors Program provides recognition of outstanding performance by students majoring in Philosophy, Logic and Computation or Ethics, History, and Public Policy. Students have the opportunity to develop their skills and to apply their knowledge through
completion of an honors thesis in their senior year. By completing the thesis, students earn 18 units of credit and qualify for graduation with College Honors. To qualify for the honors program, students must maintain a quality point average of at least 3.50 in the major and 3.25 overall, and be invited by the department to become a participant.

Undergraduate Research Fellows
Qualified upper level undergraduates, preferably majors in one of the Philosophy Department’s programs, may apply to serve in their junior or senior years as fellows in the Laboratory for Symbolic and Educational Computing (LSEC). Applications are reviewed in the fall. Visit LSEC from the Department's website, http://www.hss.cmu.edu/philosophy/labs-lsec.php, or contact Professors Joseph Ramsey or Wilfried Seig for additional information.

Faculty
JEREMY AVIGAD, Professor of Philosophy – Ph.D., University of California, Berkeley; Carnegie Mellon, 1996–.
STEVEN AWODEY, Professor of Philosophy – Ph.D., University of Chicago; Carnegie Mellon, 1997–.
ADAM BJØRNDAL, Assistant Professor of Philosophy – Ph.D., Cornell University; Carnegie Mellon, 2014–.
ROBERT CAVALIER, Teaching Professor of Philosophy – Ph.D., Duquesne University; Carnegie Mellon, 1987–.
DAVID DANKS, Professor of Philosophy – Ph.D., University of California, San Diego; Carnegie Mellon, 2003–.
BENJAMIN R. GEORGE, Assistant Professor of Philosophy – Ph.D., University of California, Los Angeles; Carnegie Mellon, 2014–.
CLARK GLYMOUR, Alumni University Professor of Philosophy – Ph.D., Indiana University; Carnegie Mellon, 1984–.
MARALEE HARRELL, Associate Teaching Professor of Philosophy – Ph.D., University of California, San Diego; Carnegie Mellon, 2003–.
KEVIN T. KELLY, Professor of Philosophy – Ph.D., University of Pittsburgh; Carnegie Mellon, 1985–.
ALEX LONDON, Professor of Philosophy – Ph.D., University of Virginia; Carnegie Mellon, 2000–.
RICHARD SCHEINES, Professor of Philosophy – Ph.D., University of Pittsburgh; Carnegie Mellon, 1987–.
TEDDY I. SEIDENFELD, Herbert A. Simon Professor of Philosophy and Statistics – Ph.D., Columbia University; Carnegie Mellon, 1985–.
GREG SIEG, Associate Teaching Professor of Philosophy – Ph.D., Stanford University; Carnegie Mellon, 1985–.
MANDY SIMONS, Associate Professor of Philosophy – Ph.D., Cornell University; Carnegie Mellon, 1998–.
JOEL SMITH, Distinguished Career Teaching Professor of Philosophy – Ph.D., University of Pittsburgh; Carnegie Mellon, 2000–.
PETER L. SPIRITES, Professor of Philosophy – Ph.D., University of Pittsburgh; Carnegie Mellon, 1987–.
DANIELLE WENNER, Assistant Professor of Philosophy – Ph.D., Rice University; Carnegie Mellon, 2013–.
THOMAS WERNER, Assistant Teaching Professor of Philosophy – Ph.D., Rutgers University; Carnegie Mellon, 2003–.
KUN ZHANG, Assistant Professor of Philosophy – Ph.D., The Chinese University of Hong Kong; Carnegie Mellon, 2015–.
KEVIN ZOLLMAN, Associate Professor of Philosophy – Ph.D., University of California, Irvine; Carnegie Mellon, 2009–.

Special Faculty
CHRISTINA BJØRNDAL, Teaching Instructor – Ph.D. Candidate, Cornell University; Carnegie Mellon, 2014–.
DAVID GRAY, Assistant Teaching Professor of Philosophy, Carnegie Mellon-Qatar – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2009–.
DERRICK GRAY, Teaching Instructor – Ph.D., Rice University; Carnegie Mellon, 2013–.
ANDY NORMAN, Teaching Instructor – Ph.D., Northwestern University; Carnegie Mellon, 2006–.
JOSEPH RAMSEY, Director of Research Computing – Ph.D., University of California, San Diego; Carnegie Mellon, 2006–.

Affiliated Faculty
WAYNE WU, Associate Professor and Associate Director of CNBC – Ph.D., University of California, Berkeley; Carnegie Mellon, 2010–.

Emeritus Faculty
DANA S. SCOTT, Hillman University Professor of Mathematical Logic, Computer Science and Philosophy (Emeritus) – Ph.D., Princeton University; Carnegie Mellon, 1981–.