DISCIPLINARY WAYS OF KNOWING

Mathematical/Computational Reasoning
One Required Course
The aim of this requirement is to develop the fundamental skills involved in mathematical and computational approaches to problem solving, reasoning, and an understanding of our world. These skills also form the basis for advanced reasoning in many areas and provide a basis for testing logic, solving problems, and evaluating mathematical and computational arguments and evidence in daily life. After completing this requirement, students will be prepared to explore quantitative and computational issues in the natural sciences, the social sciences and the humanities.

The following courses have the MCR (Mathematical/Computational Reasoning) attribute:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 1100</td>
<td>Structures of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CISC 1400</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
<tr>
<td>CISC 1600</td>
<td>Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CISC 1800</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1003</td>
<td>Mathematics and Democracy</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203</td>
<td>Applied Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1206</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1700</td>
<td>Mathematical Modelling</td>
<td>4</td>
</tr>
</tbody>
</table>

Natural Science
Two Courses in Sequence: Physical Science and Life Science
Through core science courses, students will gain understanding of scientific methodology as a way of knowing and an appreciation of the social responsibility and ethics of science. By understanding how reasoning and experimental evidence lead to scientific conclusions, students will develop scientific literacy—the ability to understand the breakthroughs in science, medicine, and technology as educated, creative, responsible citizens. With knowledge of the basic principles of science, students will be able to evaluate the legal, moral, and ethical issues that will affect their lives after they graduate. In the science courses, students will develop skills in critical thinking and discernment; qualitative and quantitative reasoning; written and oral communication; and formulation, analysis, and solution of complex problems.

Students who are not science majors may take modular or integrated courses on various topics. The physical science section, which is taken first, covers energy (kinetic and potential, electromagnetic, thermodynamics), matter (atomic and molecular structure, chemical bonding), and interactions (strong, weak, electromagnetic, gravitational). The life science sections (usually taken second) cover evolution: genetics and genetic engineering; human biology; including nervous and sensory systems; environment; and behavior and learning (classical, operant, and observational). All sections have labs. Alternatively, for those interested in a specific science — including non-science majors — this requirement may be met through a two-semester disciplinary introduction with associated labs.

In summary, students may fulfill this requirement through one of three ways:
1. One course with the PSCI attribute and one course with the LSCI attribute (for non-science majors).
2. A two-course disciplinary introduction sequence. (This option is preferred for science majors who must take such courses anyway.)
3. A two-course sequence (NSCI 1050 & NSCI 1051), for nonscience majors only.

Physical Science courses for Non-science Majors
The following courses have the PSCI (Physical Science Core) attribute:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1102</td>
<td>Drug Discovery: From the Laboratory to the Clinic</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1104</td>
<td>Chemistry and the Artistic Image</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1109</td>
<td>Chemistry of the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>Forensic Science</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 1010</td>
<td>Physical Sciences: From Past to Present</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 1020</td>
<td>Physical Science: Today's World</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 2020</td>
<td>An Introduction to Geology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1201</td>
<td>Introduction to Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1203</td>
<td>Environmental Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1207</td>
<td>Physics of Light and Color</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1242</td>
<td>Science Fiction Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1350</td>
<td>The Physics of Climate Change</td>
<td>3</td>
</tr>
</tbody>
</table>

Life Science for Non-science Majors
The following courses have the LSCI (Life Science Core) attribute:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1200</td>
<td>Introduction to Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 1600</td>
<td>Introduction to Human Variation</td>
<td>3</td>
</tr>
<tr>
<td>BISC 1000</td>
<td>Life on the Planet Earth</td>
<td>3</td>
</tr>
<tr>
<td>BISC 1001</td>
<td>Human Biology</td>
<td>3</td>
</tr>
<tr>
<td>BISC 1002</td>
<td>Ecology: A Human Approach</td>
<td>3</td>
</tr>
<tr>
<td>BISC 1010</td>
<td>Foundations of Biology</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 1030</td>
<td>Human Function and Dysfunction</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 1040</td>
<td>People and the Living Environment</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1100</td>
<td>Biopsychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Two-course Sequence (for non-science majors only)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSCI 1050</td>
<td>Health and Disease I</td>
<td>6</td>
</tr>
<tr>
<td>&amp; NSCI 1051</td>
<td>Health and Disease II</td>
<td></td>
</tr>
</tbody>
</table>

Two-Course Disciplinary Introduction Sequences (mainly for science majors)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 1403</td>
<td>Introductory Biology I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; BISC 1413</td>
<td>Introductory Biology Lab I</td>
<td></td>
</tr>
</tbody>
</table>

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Disciplinary Ways of Knowing

BISC 1404 & BISC 1414 Introductory Biology II and Introductory Biology Lab II 5

Chemistry:
CHEM 1321 & CHEM 1331 General Chemistry I and General Chemistry Lab I 6
CHEM 1322 & CHEM 1332 General Chemistry II and General Chemistry Lab II 6

General Physics:
PHYS 1501 & PHYS 1511 General Physics I and Physics I Lab 4
PHYS 1502 & PHYS 1512 General Physics II and Physics II Lab 4

Introduction to Physics:
PHYS 1601 & PHYS 1511 Introduction to Physics I and Physics I Lab 5
PHYS 1602 & PHYS 1512 Introduction to Physics II and Physics II Lab 5

Lincoln Center

Introductory Biology:
NSCI 1403 & NSCI 1413 General Biology Lecture I and General Biology Lab I 5
NSCI 1404 & NSCI 1414 General Biology Lecture II and General Biology Lab II 5

Concepts in Biology:
NSCI 1423 & NSCI 1433 Concepts in Biology Lecture I and Concepts in Biology Lab I 5
NSCI 1424 & NSCI 1434 Concepts in Biology Lecture II and Concepts in Biology Lab II 5

General Chemistry:
NSCI 1321 & NSCI 1331 General Chemistry Lecture I and General Chemistry Lab I 6
NSCI 1322 & NSCI 1332 General Chemistry Lecture II and General Chemistry Lab II 6

General Physics:
NSCI 1501 & NSCI 1511 General Physics Lecture I and General Physics Lab I 4
NSCI 1502 & NSCI 1512 General Physics Lecture II and General Physics Lab II 4

Physics:
NSCI 1701 & NSCI 1511 Physics I and General Physics Lab I 4
NSCI 1702 & NSCI 1512 Physics II and General Physics Lab II 4

Philosophy of Human Nature
One Required Course
A philosophical reflection on the central metaphysical and epistemological questions surrounding human nature, which includes discussion of some or all of the following problems: the body/soul distinction and the mind/body problem; the problem of knowledge (relativism, skepticism, the objectivity of knowledge; faith and reason);

free will and determinism; and self and society (subjectivity, personhood, sociality, historicity, and tradition). At least 60 percent of each section of the course is devoted to readings from Plato, Aristotle, Augustine or Aquinas, and Descartes. Each section includes some writings by at least one contemporary figure.

Course Title Credits
PHIL 1000 Philosophy of Human Nature 3

Faith and Critical Reason
One Required Course
An introduction to fundamental theological issues including the dialectic between religion and modernity that has shaped our cultural heritage, and some of the ways that various cultures and individuals have confronted the pressing questions of meaning in human life. When appropriate, comparisons with religious traditions other than Christianity are made.

Course Title Credits
THEO 1000 Faith and Critical Reason 3

Fine and Performing Arts
One Required Course
By seeing or hearing visual or musical works and understanding them, students learn to appreciate the non verbal and how such works both are influenced by and exercise influence on their cultural milieu. The courses take advantage of and encourage students to appreciate the extensive cultural offerings of New York City.

The following courses have the FACC (Fine and Performing Arts) attribute:

Course Title Credits
ARHI 1100 Art History Introduction: World Art 3
ARHI 1101 Introduction to Art History: Europe 3
ARHI 1102 Introduction to Art History: Asia 3
ARHI 1103 Introduction to Art History: Americas 3
ARHI 1104 Introduction to Art History: Africa and African Diaspora 3
ARHI 1105 Introduction to Art History: Architecture 3
ARHI 1298 Art History AP 3
ARHI 3480 Art and Architecture in London 4
MUSC 1051 Who Cares If You Listen?! Music, Culture, and the Critical Ear 3
MUSC 1100 Introduction to Music History 3
THEA 1100 Invitation to Theatre 3
THEA 3520 Producing through a Social Justice Lens 4
VART 1110 Urbanism 3
VART 1135 Visual Thinking 3

Texts and Contexts
One Required Course
The introductory core course in English literature, which may include literature in translation, will teach the arts of literary interpretation by developing techniques of close reading, an appreciation of the relations among literary works and the contexts in which they are written and read, and an ability to write critically about the interplay between text and context. The sections of this course will offer students choice among thematic and topical foci, which will be specified in each section title and
The following courses have the HC (Understanding Historical Change) attribute:

Course | Title | Credits
--- | --- | ---
AFAM 1600 | Understanding Historical Change: Africa | 3
CLAS 1210 | Understanding Historical Change: Ancient Greece | 3
CLAS 1220 | Understanding Historical Change: Ancient Rome | 3
HIST 1000 | Understanding Historical Change: Modern Europe | 3
HIST 1075 | Understanding Historical Change: Renaissance to Revolution in Europe | 3
HIST 1100 | Understanding Historical Change: American History | 3
HIST 1103 | Understanding Historical Change: Fighting for Equal Rights in American History | 3
HIST 1200 | Understanding Historical Change: Ancient History | 3
HIST 1210 | Understanding Historical Change: Ancient Greece | 3
HIST 1220 | Understanding Historical Change: Ancient Rome | 3
HIST 1240 | Understanding Historical Change: The Ancient World | 3
HIST 1300 | Understanding Historical Change: Medieval | 3
HIST 1400 | Understanding Historical Change: Latin America | 3
HIST 1450 | Understanding Historical Change: South Asian History | 3
HIST 1550 | Understanding Historical Change: Modern East Asia | 3
HIST 1551 | Understanding Historical Change: Representations of China and The West | 3
HIST 1600 | Understanding Historical Change: Africa | 3
HIST 1650 | Understanding Historical Change: The Black Atlantic | 3
HIST 1700 | Understanding Historical Change: Mideast | 3
HIST 1750 | Understanding Historical Change: Islamic History and Culture | 3
HIST 1850 | Understanding Historical Change: Jews in the Ancient and Medieval World | 3
HIST 1851 | Understanding Historical Change: Jews in the Modern World | 3
HIST 1925 | Understanding Historical Change: Science and Technology | 3
LALS 1400 | Understanding Historical Change: Latin America | 3

Prerequisite: ENGL 1102 Composition II

**Understanding Historical Change**

One Required Course

Through the introduction to the discipline of history, students will begin to achieve knowledge of the structure of societies, how they function, and how they change. Each section of the course will consider how to assess evidence, identify and evaluate differing and often contradictory explanations and arguments, and appraise the relative scale and importance of particular changes in the past. Students will be able to choose from different sections of the course, each with the title Understanding Historical Change and a descriptive subtitle, such as Ancient Greece, American History, etc.

The following courses have the TC (Texts and Contexts) attribute:

Course | Title | Credits
--- | --- | ---
CLAS 2000 | Texts and Contexts | 3
COLI 2000 | Texts and Contexts | 3
ENGL 1004 | Texts and Contexts: Upward Mobility and the Common Good | 3
ENGL 2000 | Texts and Contexts | 3
HPLC 1201 | Honors: English | 3
MLAL 1010 | Spanish Colonialism Through Film | 3
MLAL 2000 | Texts and Contexts | 3

**Texts and Contexts**

HIST 1400

MLAL 1201

AFAM 1600

CLAS 1220

HIST 1000

HIST 1075

HIST 1100

HIST 1103

HIST 1200

HIST 1210

HIST 1220

HIST 1240

HIST 1300

HIST 1400

HIST 1450

HIST 1550

HIST 1551

HIST 1600

HIST 1650

HIST 1700

HIST 1750

HIST 1850

HIST 1851

HIST 1925

LALS 1400

**Social Sciences**

One Required Course

Students will be introduced to the ways of knowing the characteristics of the social sciences through introductory courses in anthropology, communications, economics, political science, psychology, and sociology. The courses will usually focus on a substantive concern of the social sciences and include historical overviews, consideration of the variety of research methods typically used (especially empirical research), reviews of the major theoretical orientations and models, and real-world implications and applications to practical problems.

The following courses have the SSCI (Social Science Core Requirement) attribute:

Course | Title | Credits
--- | --- | ---
AFAM 1650 | Black Popular Culture | 4
ANTH 1050 | Anthropology Focus | 3
ANTH 1100 | Introduction to Cultural Anthropology | 3
ANTH 1300 | Introduction to Archaeology | 3
ANTH 1413 | Language and Culture | 4
COMC 2175 | Persuasion and Public Opinion | 4
COMC 2329 | Media Industries | 4
COMC 2377 | Mass Communication and Media Effects | 4
COMM 1000 | Fundamentals of Communication and Media Studies | 3
COMM 1010 | Introduction to Communication and Media Studies | 3
DTEM 2459 | Social History of Communication and Technology | 4
ECON 1100 | Principles of Macroeconomics | 3
ECON 1200 | Principles of Microeconomics | 3
JOUR 1761 | The Power of News | 3
LING 1500 | Introduction to Psycholinguistics | 3
POSC 1100 | Introduction to Politics | 3
POSC 1298 | Government and Politics Comparative | 3

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSC 1299</td>
<td>Government &amp; Politics: US</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1004</td>
<td>The Mind-Body Connection: Introduction to Behavioral Health</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2600</td>
<td>Social Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2700</td>
<td>Infant and Child Development</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2710</td>
<td>Adolescent and Adult Development</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2800</td>
<td>Personality</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2900</td>
<td>Psychopathology</td>
<td>4</td>
</tr>
<tr>
<td>SOCI 1025</td>
<td>Sociology of American Culture</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 1050</td>
<td>Sociology Focus</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 1100</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 1102</td>
<td>Introduction to Sociology: Health Focus</td>
<td>3</td>
</tr>
</tbody>
</table>