

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:

Course	Title	Credits
CISC 1100	Structures of Computer Science	3
CISC 1400	Discrete Structures	4
CISC 1600	Computer Science I	3
CISC 1800	Introduction to Computer Programming	3
MATH 1003	Mathematics and Democracy	3
MATH 1100	Finite Mathematics	3
MATH 1203	Applied Calculus I	3
MATH 1206	Calculus I	4
MATH 1207	Calculus II	4
MATH 1700	Mathematical Modelling	4
MATH 2008	Vector Calculus	4

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 two 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.)

Physical Science courses for Non-science Majors

The following courses have the PSCI (Physical Science Core) attribute:

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

Life Science for Non-science Majors

The following courses have the LSCI (Life Science Core) attribute:

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

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

Course	Title	Credits
Rose Hill courses		
<i>Biology:</i>		
BISC 1403 & BISC 1413	Introductory Biology I and Introductory Biology Lab I	5
BISC 1404 & BISC 1414	Introductory Biology II and Introductory Biology Lab II	5
<i>Chemistry:</i>		
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

<i>General Physics:</i>		
PHYS 1501 & PHYS 1511	General Physics I and Physics I Lab	4
PHYS 1502 & PHYS 1512	General Physics II and Physics II Lab	4
<i>Introduction to Physics:</i>		
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
<i>Physics:</i>		
PHYS 1701 & PHYS 1511	Physics I and Physics I Lab	4
PHYS 1702 & PHYS 1512	Physics II and Physics II Lab	4
Lincoln Center		
<i>Introductory Biology:</i>		
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
<i>Concepts in Biology:</i>		
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
<i>General Chemistry:</i>		
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
<i>General Physics:</i>		
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
<i>Physics:</i>		
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 apposite, 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
VART 1101	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 spelled out in the section's description. All sections will be offered in the Eloquentia Perfecta format, which emphasizes writing and presentation and fulfill the EP2 requirement.

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
LACU 1010	Spanish Colonialism Through Film	3
LACU 2000	Texts and Contexts	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 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

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
STEM 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
POSC 1299	Government & Politics: US	3
PSYC 1004	The Mind-Body Connection: Introduction to Behavioral Health	3
PSYC 2600	Social Psychology	4

4 *Disciplinary Ways of Knowing*

PSYC 2601	Lab in Social Psychology	5
PSYC 2700	Infant and Child Development	4
PSYC 2710	Adolescent and Adult Development	4
PSYC 2800	Personality	4
PSYC 2900	Psychopathology	4
SOCI 1025	Sociology of American Culture	3
SOCI 1050	Sociology Focus	3
SOCI 1100	Introduction to Sociology	3
SOCI 1102	Introduction to Sociology: Health Focus	3