

350a. Atmospheric Chemistry. Spring 2010. LAURA VOSS.

An in-depth study in the chemistry that affects atmospheric composition and global climate change. Topics include ozone depletion, tropospheric pollution, understanding past climates, and modern research techniques. (Same as **Environmental Studies 350**.)

Prerequisite: **Chemistry 109** and **Chemistry 251** or **Physics 229**, or permission of the instructor.

401a–404a. Advanced Independent Study and Honors in Chemistry. THE DEPARTMENT.

Advanced version of **Chemistry 291–294**. Students are expected to demonstrate a higher level of ownership of their research problem and to have completed at least four of the 200-level courses required for the major.

Classics

Jennifer Clarke Kosak, *Department Chair*
Tammis L. Lareau, *Department Coordinator*

Professor: Barbara Weiden Boyd

Associate Professors: James A. Higginbotham, Jennifer Clarke Kosak

Assistant Professor: Robert B. Sobak

Visiting Faculty: Ryan Ricciardi

The Department of Classics offers three major programs: one with a focus on language and literature (Classics), one with a focus on classical archaeology (Classical Archaeology), and one that looks at the ancient world from multiple perspectives (Classical Studies). Students pursuing these majors are encouraged to study not only the languages and literatures but also the physical monuments of Greece and Rome. This approach is reflected in the requirements for the three major programs: for all, requirements in Greek and/or Latin and in classical culture must be fulfilled. Courses in which a grade below C- is earned may not be used to fulfill the requirements for any of the programs offered by the department. Courses taken with the Credit/D/Fail grading option also may not be used to fulfill the requirements for any of the programs offered by the department.

Classics

The classics program is arranged to accommodate both those students who have studied no classical languages and those who have had extensive training in Latin and Greek. The objective of Greek and Latin courses is to study the ancient languages and literatures in the original. By their very nature, these courses involve students in the politics, history, and philosophies of antiquity. Advanced language courses focus on the analysis of textual material and on literary criticism.

Requirements for the Major in Classics

The major in classics consists of ten courses. At least six of the ten courses are to be chosen from offerings in Greek and Latin and should include at least two courses in Greek or Latin at the 300 level. Of the remaining courses, one should be chosen from **Archaeology 101** or **102**, one should be chosen from **Classics 101** or **102**, and one should be chosen from **Classics 211** or **212**. Of the courses a student wishes to count towards the major, at least one at the 300 level should be taken during the senior year. Students concentrating in one of the languages are encouraged to take at least two courses in the other. As a capstone to this

major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed. Research seminars may include **Archaeology 303, Archaeology 304, Classics 305, Greek 391–392, Latin 310.**

Classical Archaeology

Within the broader context of classical studies, the classical archaeology program pays special attention to the physical remains of classical antiquity. Students studying classical archaeology should develop an understanding of how archaeological evidence can contribute to our knowledge of the past, and of how archaeological study interacts with such related disciplines as philology, history, and art history. In particular, they should acquire an appreciation for the unique balance of written and physical sources that makes classical archaeology a central part of classical studies.

Requirements for the Major in Classical Archaeology

The major in classical archaeology consists of ten courses. At least five of the ten courses are to be chosen from offerings in archaeology, and should include **Archaeology 101, 102,** and at least one archaeology course at the 300 level. At least four of the remaining courses are to be chosen from offerings in Greek or Latin, and should include at least one at the 300 level. As a capstone to this major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed. Research seminars may include **Archaeology 303, Archaeology 304, Classics 305, Greek 391–392, Latin 310.**

Classical Studies

The classical studies major provides a useful foundation for students who seek a multi-disciplinary view of the ancient world. The major combines coursework in an ancient language (Greek or Latin) with courses that explore the culture, history, and traditions of the ancient Mediterranean.

Requirements for the Major in Classical Studies

The major in classical studies consists of ten courses. At least eight courses must be selected from within the department. A minimum of two courses should be elected in a single ancient language (Greek or Latin). The appropriate level depends on the student's preparation and is determined by the department. The remaining classes should include **Classics 101, 102, 211,** and **212;** at least one course in classical archaeology; at least one and not more than two classes outside the Department of Classics and chosen from the following (or from other appropriate offerings in these disciplines, with classics department approval): **Anthropology 102** or **221;** **Art History 213** or **215;** **Government 240;** **Philosophy 111;** **Religion 215** or **216;** **English/Theater 106;** and at least two advanced courses in the department at the 300 level, one of which must be a designated research seminar. As a capstone to this major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed. Research seminars may include **Archaeology 303, Archaeology 304, Classics 305, Greek 391–392, Latin 310.**

Interdisciplinary Major

The department participates in an interdisciplinary program in archaeology and art history. See page 209.

Requirements for the Minor

Students may choose a minor in one of five areas:

1. *Greek*: Five courses in the department, including at least four in the Greek language;
2. *Latin*: Five courses in the department, including at least four in the Latin language;
3. *Classics*: Five courses in the department, including at least four in the classical languages; of these four, one should be either **Greek 204** or **Latin 205** or **206**;
4. *Archaeology*: Six courses in the department, including either **Archaeology 101** or **102**, one archaeology course at the 300 level, and two other archaeology courses;
5. *Classical Studies* (Greek or Roman): Six courses, including:
 - a. —*for the Greek studies concentration*: two courses in the Greek language; **Archaeology 101**; one of the following: **Classics 17** (or any other appropriate first-year seminar), **Classics 101, 102, or 211**; or **Philosophy 111**; or **Government 240**; and two of the following: **Archaeology 203** or any 300-level archaeology course focusing primarily on Greek material; **Classics 291–294** (Independent Study) or any 200- or 300-level Greek or classics course focusing primarily on Greek material.
 - b. —*for the Roman studies concentration*: two courses in the Latin language; **Archaeology 102**; one of the following: **Classics 16** (or any other appropriate first-year seminar), **Classics 101, 102, or 212**; or **Philosophy 111**; or **Government 240**; and two of the following: **Archaeology 204** or any 300-level archaeology course focusing primarily on Roman material; or **Classics 291–294** (Independent Study) or any 200- or 300-level Latin or classics course focusing primarily on Roman material.

Other courses in the Bowdoin curriculum may be applied to this minor if approved by the classics department.

Classics and Archaeology at Bowdoin and Abroad

Archaeology classes regularly use the outstanding collection of ancient art in the Bowdoin College Museum of Art. Of special note are the exceptionally fine holdings in Greek painted pottery and the very full and continuous survey of Greek and Roman coins. In addition, there are numerous opportunities for study or work abroad. Bowdoin is a participating member of the Intercollegiate Center for Classical Studies in Rome, where students majoring in classics and classical archaeology can study in the junior year (see page 50). It is also possible to receive course credit for field experience on excavations. Interested students should consult members of the department for further information.

Students contemplating graduate study in classics or classical archaeology are advised to begin the study of at least one modern language in college, as most graduate programs require competence in French and German as well as in Latin and Greek.

ARCHAEOLOGY

Archaeology 101 and **102** are offered in alternate years.

101c. Introduction to Greek Art and Archaeology. Fall 2009. RYAN RICCIARDI.

Introduces the techniques and methods of classical archaeology as revealed through an examination of Greek material culture. Emphasis upon the major monuments and artifacts of the Greek world from prehistory to the Hellenistic age. Architecture, sculpture, fresco painting, and other “minor arts” are examined at such sites as Knossos, Mycenae, Athens, Delphi, and Olympia. Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Greek world. (Same as **Art History 209**.)

102c. Introduction to Roman Archaeology. Fall 2010. RYAN RICCIARDI.

Surveys the material culture of Roman society, from Italy’s prehistory and the origins of the Roman state through its development into a cosmopolitan empire, and concludes with the fundamental reorganization during the late third and early fourth centuries of our era. Lectures explore ancient sites such as Rome, Pompeii, Athens, Ephesus, and others around the Mediterranean. Emphasis upon the major monuments and artifacts of the Roman era: architecture, sculpture, fresco painting, and other “minor arts.” Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Roman world. (Same as **Art History 210**.)

201c. Archaeology of the Hellenistic World. Spring 2010. RYAN RICCIARDI.

Examines the reign and legacy of Alexander the Great, as evidenced in the archaeological record. From his accession to the throne of Macedonia in 336 B.C., until his untimely death in 323 B.C., Alexander extended the boundaries of the Greek world from the Balkans to Egypt, Mesopotamia, and Asia as far as the Indus River. Covers the dramatic developments in sculpture, painting, architecture, and the minor arts in the cosmopolitan Greek world from the time of Alexander the Great until the advent of Rome in the first century B.C. Assigned readings supplement illustrated presentations of the major monuments and artifact sessions in the Bowdoin College Museum of Art.

[207c - IP. **Who Owns the Past? The Roles of Museums in Preserving and Presenting Culture.** (Same as **Anthropology 205**.)]

[208c - IP. **The Archaeology of Troy.**]

At least one 300-level archaeology course is offered each year. Topics and/or periods recently taught on this level include the Greek Bronze Age, Etruscan art and archaeology, Greek and Roman numismatics, and Pompeii and the cities of Vesuvius. The 300-level courses currently scheduled are:

[302c. **Ancient Numismatics.**]

303c. Ancient Art in the Making. Spring 2010. JAMES HIGGINBOTHAM.

Examines the processes used in the creation of ancient Mediterranean art. Using artifacts housed in the collections of the Bowdoin College Museum of Art, explores the techniques and materials involved in the production of sculpture, painting, mosaics, pottery, glass, jewelry, and coins. Important themes include the identity and status of artists, cross-cultural influences, technical innovations, and the varied contexts in which artifacts are found. Student research connects the work of ancient artists to the practice of their modern counterparts by study visits to local workshops.

Prerequisite: **Archaeology 101** or **102**, or **Art History 100** or **101**.

304c. Pompeii and the Cities of Vesuvius. Fall 2009. RYAN RICCIARDI.

The archaeological record of Pompeii and the neighboring towns of the Bay of Naples is unique in the range and completeness of its testimony about domestic, economic, religious, social, and political life in the first century A.D. Examines archaeological, literary, and documentary material ranging from architecture and sculpture to wall painting, graffiti, and the floral remains of ancient gardens, but focuses on interpreting the archaeological record for insight into the everyday life of the Romans. Archaeological materials are introduced through illustrated presentations and supplementary texts.

Prerequisite: **Archaeology 101** or **102**, or permission of the instructor.

[**310c - IP. Urban Development, Suburban Space: The Archaeology of the Campus Martius.**]

CLASSICS

First-Year Seminar

For a full description of first-year seminars, see pages 149–60.

11c. Shame, Honor, and Responsibility. Fall 2009. JENNIFER CLARKE KOSAK.

[**16c. Cultural Connections in the Ancient Mediterranean.**]

[**17c. The Heroic Age: Ancient Supermen and Wonder Women.**]

Introductory, Intermediate, and Advanced Courses

Classics 101 and **102** are offered in alternate years.

101c - ESD, IP. Classical Mythology. Spring 2010. JENNIFER CLARKE KOSAK.

Focuses on the mythology of the Greeks and the use of myth in classical literature. Other topics considered are recurrent patterns and motifs in Greek myths; a cross-cultural study of ancient creation myths; the relation of mythology to religion; women's roles in myth; and the application of modern anthropological, sociological, and psychological theories to classical myth. Concludes with an examination of Ovid's use of classical mythology in the *Metamorphoses*.

102c - ESD, IP. Introduction to Ancient Greek Culture. Spring 2011. THE DEPARTMENT.

Introduces students to the study of the literature and culture of ancient Greece. Examines different Greek responses to issues such as religion and the role of gods in human existence, heroism, the natural world, the individual and society, and competition. Considers forms of Greek rationalism, the flourishing of various literary and artistic media, Greek experimentation with different political systems, and concepts of Hellenism and barbarism. Investigates not only what we do and do not know about ancient Greece, but also the types of evidence and methodologies with which we construct this knowledge. Evidence is drawn primarily from the works of authors such as Homer, Sappho, Herodotus, Aeschylus, Sophocles, Euripides, Thucydides, Aristophanes, Plato, and Hippocrates, but attention is also given to documentary and artistic sources. All readings are done in translation.

211c - ESD. History of Ancient Greece: Bronze Age to the Death of Alexander. Fall 2009. ROBERT SOBAK.

Surveys the history of Greek-speaking peoples from the Bronze Age (c. 3000–1100 B.C.E.) to the death of Alexander the Great in 323 B.C.E. Traces the political, economic, social, religious, and cultural developments of the Greeks in the broader context of the Mediterranean world.

Topics include the institution of the *polis* (city-state); hoplite warfare; Greek colonization; the origins of Greek “science,” philosophy, and rhetoric; and fifth-century Athenian democracy and imperialism. Necessarily focuses on Athens and Sparta, but attention is also given to the variety of social and political structures found in different Greek communities. Special attention is given to examining and attempting to understand the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). A variety of sources—literary, epigraphical, archaeological—are presented, and students learn how to use them as historical documents. (Same as **History 201**.)

212c. Ancient Rome. Every other spring. Spring 2011. ROBERT SOBAK.

Surveys the history of Rome from its beginnings to the fourth century A.D. Considers the political, economic, religious, social, and cultural developments of the Romans in the context of Rome’s growth from a small settlement in central Italy to the dominant power in the Mediterranean world. Special attention is given to such topics as urbanism, imperialism, the influence of Greek culture and law, and multi-culturalism. Introduces different types of sources—literary, epigraphical, archaeological, etc.—for use as historical documents. (Same as **History 202**.)

[222c - ESD, IP. Artisans, Artistry, and Manual Labor in Ancient Greece.]

[224c - ESD, IP. City and Country in Roman Culture. (Same as **History 214**.)]

[232c - ESD. Ancient Greek Theater.]

241c - IP. The Transformations of Ovid. Fall 2009. BARBARA WEIDEN BOYD.

“Transformation” is both a translation of the title of Ovid’s greatest work, the *Metamorphoses*, the theme of which is mythical transformation, and a term that can be aptly applied as well to the life and work of Ovid, whose wildly successful social and literary career was radically transformed in 8 A.D. by Augustus’s decree of exile, from which Ovid was never to return. The work “transformation” also captures the essence of Ovid’s literary afterlife, during which his work has taken on new incarnations in the creative responses of novelists, poets, dramatists, artists, and composers. Begins with an overview of Ovid’s poetry; culminates in a careful reading and discussion of the formal elements and central themes of the *Metamorphoses*. Also examines Ovid’s afterlife, with special attention paid to his intertextual presence in the works of Shakespeare, Franz Kafka, Joseph Brodsky, Ted Hughes, Cristoph Ransmayr, Antonio Tabucchi, David Malouf, and Mary Zimmerman. All readings in English.

305c. Leisure, Class, and “The Liberal Arts” in Ancient Greece. Spring 2010. ROBERT SOBAK.

As a student, here you are with the time, the means, and the motivation to devote four years of your life to a non-vocational curriculum at a distinctively American institution: the “liberal arts” college. Just as the English words “school” and “scholar” derive from the Greek word for “leisure,” so too do many of our own ideas about what constitute a “liberal arts” education derive from a particular place and moment in time: ancient Greece. Examines not only a wide variety of idealistic prescriptions for educational practice by writers such as Plato, Xenophon and Aristotle, but also the historical context within which such ideals were born. Confronts, among other things, questions of time, socio-economic status, political ideology, and intellectualism—issues that have as much importance today as they did 2,500 years ago.

Prerequisite: One 100- or 200-level course in classics, or permission of the instructor.

[312c. Ancient Greek Medicine.]

GREEK

101c. Elementary Greek I. Fall 2009. JENNIFER CLARKE KOSAK.

Introduces students to basic elements of ancient Greek grammar and syntax; emphasizes the development of reading proficiency and includes readings, both adapted and in the original, of various Greek authors. Focuses on Attic dialect.

102c. Elementary Greek II. Spring 2010. JENNIFER CLARKE KOSAK.

A continuation of **Greek 101**; introduces students to more complex grammar and syntax, while emphasizing the development of reading proficiency. Includes readings, both adapted and in the original, of Greek authors such as Plato and Euripides. Focuses on Attic dialect.

203c. Intermediate Greek for Reading. Every fall. Fall 2009. ROBERT SOBAK.

A review of the essentials of Greek grammar and syntax and an introduction to the reading of Greek prose and sometimes poetry. Materials to be read change from year to year, but always include a major prose work. Equivalent of **Greek 102** or two to three years of high school Greek is required.

204c - IP. Homer. Every spring. Spring 2010. BARBARA WEIDEN BOYD.

An introduction to the poetry of Homer. Focuses both on reading and on interpreting Homeric epic.

At least one advanced Greek course is offered each year. The aim of each of these courses is to give students the opportunity for sustained reading and discussion of at least one major author or genre representative of classical Greek literature. Primary focus is on the texts, with serious attention given as well both to the historical context from which these works emerged and to contemporary discussions and debates concerning these works.

Department faculty generally attempt to schedule offerings in response to the needs and interests of concentrators. Topics and/or authors frequently taught on this level include Greek lyric and elegiac poetry; Homer's *Odyssey*; Greek drama (including the tragedies of Aeschylus, Sophocles, and Euripides, and the comedies of Aristophanes and Menander); Greek history (including Herodotus and Thucydides); Greek philosophy (including Plato and Aristotle); Greek rhetoric and oratory; and the literature of the Alexandrian era. The 300-level course to be offered in 2009–2010 is to be determined by consultation with Professor Kosak.

391c–392c. Special Topics in Greek. Spring 2010. ROBERT SOBAK.

LATIN

101c. Elementary Latin I. Every fall. Fall 2009. RYAN RICCIARDI.

A thorough presentation of the elements of Latin grammar. Emphasis is placed on achieving a reading proficiency.

102c. Elementary Latin II. Every spring. Spring 2010. RYAN RICCIARDI.

A continuation of **Latin 101**. During this term, readings are based on unaltered passages of classical Latin.

203c. Intermediate Latin for Reading. Every fall. Fall 2009. BARBARA WEIDEN BOYD.

A review of the essentials of Latin grammar and syntax and an introduction to the reading of Latin prose and poetry. Materials to be read change from year to year, but always include a major prose work. Equivalent of **Latin 102** or two to three years of high school Latin is required.

204c - IP. Studies in Latin Literature. Every spring. Spring 2010. ROBERT SOBAK.

An introduction to different genres and themes in Latin literature. The subject matter and authors covered may change from year to year (e.g., selections from Virgil's *Aeneid* and Livy's *History*, or from Lucretius, Ovid, and Cicero), but attention is always given to the historical and literary context of the authors read. While the primary focus is on reading Latin texts, some readings from Latin literature in translation are also assigned. Equivalent of **Latin 203** or three to four years of high school Latin is required.

Latin 205 and **206** are offered in alternate years.

205c. Latin Prose. Every other year. Fall 2010. THE DEPARTMENT.

An introduction to the content, genres, and style of the greatest writers of Latin prose (including speeches, rhetorical and philosophical works, and historical texts). Authors to be read may include Cicero, Sallust, Livy, Tacitus, or Suetonius. Equivalent of **Latin 204** or four or more years of high school Latin is required.

206c. Roman Comedy. Every other year. Fall 2009. JENNIFER CLARKE KOSAK.

An introduction to the earliest complete texts that survive from Latin antiquity, the plays of Plautus and Terence. One or two plays are read in Latin, and several others in English translation. Students are introduced to modern scholarship on the history and interpretation of Roman theater. Equivalent of **Latin 204** or four or more years of high school Latin is required.

One advanced Latin course is offered each semester. The aim of each of these courses is to give students the opportunity for sustained reading and discussion of at least one major author or genre representative of classical Latin literature. Primary focus is on the texts, with serious attention given as well both to the historical context from which these works emerged and to contemporary discussions and debates concerning these works.

Department faculty generally attempt to schedule offerings in response to the needs and interests of concentrators. Topics and/or authors frequently taught on this level include Roman history (including Sallust, Livy, and Tacitus); Ovid's *Metamorphoses*; Elegiac poetry; Cicero's oratory; Virgil's *Aeneid* or *Eclogues* and *Georgics*; Roman novel (including Petronius and Apuleius); satire; and comedy (including Plautus and Terence). The 300-level courses currently scheduled are:

301c - IP. Livy. Fall 2009. BARBARA WEIDEN BOYD.

Historian Titus Livius (Livy, c. 59 B.C.E.–17 C.E.) is our single most important source for the history of Rome from its beginnings until the age of Augustus. His prose history in 142 books (of which approximately thirty-five survive) provides rich insight into Rome's creation of its identity as a world empire, as well as detailed analysis of the personalities, events, and social and political changes that shaped the ancient Mediterranean world. Focuses on the close reading of one book of Livy's historical narrative and develops a working definition of ancient historiography through readings of modern studies of Livy's work. Weekly reading of Livy's Latin text complemented and supported by weekly exercises in Latin prose composition.

[303c. Augustine.]

[305c - IP. Virgil.]

[309c - IP. Tacitus.]

310c - IP. Catullus. Spring 2010. BARBARA WEIDEN BOYD.

The intimacy and immediacy of Catullan lyric and elegiac poetry have often been thought to transcend time and history; in his descriptions of a soul tormented by warring emotions, Catullus appears to speak to and for all who have felt love, desire, hatred, or despair. But Catullus is a *Roman* poet—indeed, a Roman poet *par excellence*, under whose guidance the poetic tools once wielded by the Greeks were once and for all appropriated in and adapted to the literary and social ferment of first century B.C.E. Rome. Close reading of the entire Catullan corpus in Latin complemented by discussion and analysis of contemporary studies of Catullus' work, focusing on constructions of gender and sexuality in Roman poetry, the political contexts for Catullus's work, and Catullus in Roman intellectual and cultural history.

[312c - IP. Roman Tragedy.]

Independent Study in Archaeology, Classics, Greek, and Latin.

291c–294c. Intermediate Independent Study. THE DEPARTMENT.

401c–404c. Advanced Independent Study and Honors. THE DEPARTMENT.

Computer Science

Stephen M. Majercik, *Department Chair*

Suzanne M. Theberge, *Senior Department Coordinator*

Associate Professors: Eric L. Chown, Stephen M. Majercik, Laura I. Toma

Assistant Professor: Adriana Palacio

The major in computer science is designed to introduce students to the two fundamental questions of the discipline: What computational tasks is a computer capable of doing? How can we design, analyze, and implement efficient algorithms to solve large, complex problems? Thus, the discipline requires thinking in both abstract and concrete terms and the major provides an opportunity for students to develop the analytical skills necessary for efficient algorithm design as well as the practical skills necessary for the implementation of those algorithms. The range of problems that can be attacked using the techniques of computer science spans many disciplines, and computer scientists often become proficient in other areas. Examples of problems that students can study in the department include cryptography and network security, geographic information systems, robotics, artificial intelligence in computer games, and planning under uncertainty. The computer science major can serve as preparation for graduate study in computer science as well as careers in teaching, research, and industry (such as financial services and Internet-related businesses).

Requirements for the Major in Computer Science

The major consists of eight computer science courses and three mathematics courses. The computer science portion of the major consists of an introductory course, **Computer Science 101**; four intermediate “core” courses (**Computer Science 210, 231, 270, and 289**); two 300-level elective courses; and a third elective that may be satisfied by any remaining course