Medicine and Epidemiology

See Medicine and Epidemiology (VME), on page 582.

Medieval and Early Modern Studies

(College of Letters and Science)

Claire Waters, Ph.D. (English), Program Director

Program Office. 176 Voorhis Hall 530-752-2257; http://mems.ucdavis.edu

Committee in Charge

Carlson Arnett, Ph.D. (German/Russian)
Catherine Chinn, Ph.D (Religious Studies)
Sally McKee, Ph.D. (Religious Studies)
Matthew Vernon, Ph.D. (English)
Heghnar Watenpaugh, Ph.D. (Art History)

The Major Program

The major in Medieval and Early Modern Studies examines the intellectual, political, and cultural forces that shaped modern European civilization during the period from the end of Ancient Rome (fifth century) to the beginning of the Enlightenment (mid-eighteenth century). An interdisciplinary and interdepartmental program, the major includes studies in history, art history, philosophy, literature, drama, music, national languages, religion, rhetoric, and political theory.

The Program.

The major requires interdisciplinary work, while allowing the student to focus on the early Middle Ages, the High Middle Ages, the Renaissance, or the Baroque. The series of medieval and early modern courses in the program provides the foundation for the major and prepares students for advanced work in the individual disciplines. On the upper-division level, students may choose course work in specific areas of History, Comparative Literature, English, French, German, Italian, Spanish, and Latin, philosophy and religion, arts and language, and political thought. In addition, each student may elect to complete a senior thesis on a selected aspect of medieval and/or early modern culture.

Career Alternatives. The major in Medieval and Early Modern Studies is a liberal arts degree providing excellent preparation for the rigors of professional schools as well as careers in law, museology, journalism, and teaching.

Medieval and Early Modern Studies

A.B. Major Requirements: 

Preparatory Subject Matter....................22


Three additional courses chosen from: Art History 18, 1C, 1E; Comparative Literature 2, 10A, 10B, 10C, 10D, 10E; English 10A; German 48; History 14A, 48; Humanities I *, 9; Philosophy 21, 22, 22. Language proficiency is a desideratum.

Course work in languages other than English are strongly recommended, particularly for students planning to pursue graduate studies in the medieval or early modern field.

Depth Subject Matter.........................44

In consultation with the undergraduate adviser, students select a total of twelve courses from the following disciplines with at least three courses each from the medieval and early modern periods:

Art History 155, 156, 178A, 178B, 178C, 179B, 190B, 190C

Classics 110

Comparative Literature 139, 164A, 164B, 164C, 164D, 180A, 180B

English 111A, 113B, 113C, 115, 117, 122, 150A, 153*, 165*, 185A*, 188*, 189*

French 115, 116, 117A, 118B, 141*

German 101A, 112*, 120, 121, 122, 124*, 131, 134*, 169*


Medieval Studies 130A, 130B, 131, 189, 190

Music 121*, 124A, 124B

Philosophy 105, 145, 168, 170, 172

Political Science 115, 116, 118A

Religious Studies 102, 115, 118

Spanish 130, 133N, 134A, 134B, 142*

Total Units for the Major.......................66

* Prior approval by Undergraduate Adviser necessary.

Major Adviser. See Program office.

Minor Program Requirements: 

Medieval and Early Modern Studies 

In consultation with the undergraduate adviser, students select a total of twelve courses from the following disciplines with at least three courses each from the medieval and early modern periods:

Art History 155, 156, 178A, 178B, 178C, 179B, 190B, 190C

Classics 110

Comparative Literature 139, 164A, 164B, 164C, 164D, 180A, 180B

English 111A, 113B, 113C, 115, 117, 122, 150A, 153*, 165*, 185A*, 188*, 189*

French 115, 116, 117A, 118B, 141*

German 101A, 112*, 120, 121, 122, 124*, 131, 134*, 169*


Medieval Studies 130A, 130B, 131, 189, 190

Music 121*, 124A, 124B

Philosophy 105, 145, 168, 170, 172

Political Science 115, 116, 118A

Religious Studies 102, 115, 118

Spanish 130, 133N, 134A, 134B, 142*

Total Units for the Minor......................66

* Prior approval by Undergraduate Adviser necessary.

Major Adviser. See Program office.

Minor Program Requirements:

Medieval and Early Modern Studies

A coherent program of interdisciplinary study. Medieval Studies units may be taken in one or more of the traditional fields of concentration, including art, history, literature, music, national languages, philosophy, political theory, and religious studies. Courses must be upper-division with at least two courses each from the medieval and early modern fields. Students may also select a minor with a thematic emphasis.

Although there is no foreign language requirement for the minor, knowledge of Latin or a modern European language is recommended.

The minor must be designated in consultation with the Undergraduate Adviser.

Minor Adviser. See Program office.

Courses in Medieval Studies (MST)

Lower Division

20A. Early Medieval Culture (5)

Lecture—3 hours; discussion—1 hour; extensive writing. Readings (in translation) in medieval culture, such as Codex of Justian, Confessions of Saint Augustine, Beowulf, the Nibelungenlied, The Song of Roland, the Summa Theologica, and the Peasants Aquinas, the Chronicles of Froissart, Chaucer’s Canterbury Tales, and Dante’s Divine Comedy. GE credit: ArtHist, Wrt|AH, WC, WE. —F. (F)

20B. The Culture of the High Middle Ages (5)

Lecture—3 hours; discussion—1 hour; extensive writing. Great transformations that created the modern world: Constitutional Government, the Hundred Years War, the Black Death, and the Peasants Revolts, the Renaissance, Reformation and Counter-Reformation, and the Baroque. GE credit: ArtHist, Wrt|AH, WC, WE. —W. (W)

98. Directed Group Study (1-5)

Wrt|AH, WC, WE.

99. Special Study for Undergraduates (1-5) (P/NP grading only.)
Upper Division

130A. Special Themes in Medieval Cultures (4)
Lecture—3 hours; discussion—1 hour. Each offering concentrates on an interdisciplinary aspect of Medieval culture in the Middle East and Europe: the idea of the hero, mysticism, urban development. Extensive readings focused on medieval source material. May be repeated for credit. GE credit: ArtHum, Wrt1AH, WC, WE.

130B. Special Themes in Renaissance Culture (4)
Lecture—3 hours; discussion—1 hour. Each theme illuminates an interdisciplinary aspect of Renaissance culture in the eastern and western hemispheres: exploration, medical pathologies, daily life, baroque culture. Immersion in source material from 1500-1650. May be repeated for credit. GE credit: ArtHum, Wrt1AH, WC, WE.

131. Cross-Cultural Relations in the Medieval and/or Early Modern World (4)
Lecture/discussion—3 hours; extensive writing. Prerequisite: course 20A or 20B or consent of instructor. Medieval and/or Renaissance aspects of cross-cultural relations. Relations between Christians, Jews, and Muslims: Europeans, Africans, and Asians; Old World and New World. Offered irregularly. GE credit: WC, WE.

189. Seminar in Medieval and Early Modern Culture (4)
Seminar—3 hours, term paper. Prerequisite: course 20A or 20B or consent of instructor. Focus on a particular problem or issue in the Medieval or Early Modern periods. Seminar topics might include [but not limited to] monasticism, origins of the university, chivalry, exploration, the role of women in the Medieval and Early Modern world. Offered in alternate years. GE credit: WE.

190. Senior Thesis (4)
Seminar—4 hours. Prerequisite: senior standing and major in Medieval Studies. Preparation of a research paper dealing with a selected aspect of medieval culture, under supervision of three members of the Committee in Charge. — F, W, S (F, W, S).

197T. Tutoring in Medieval Studies (1-4)
Seminar—2 hours. Prerequisite: courses 20A and 20B; upper division standing; consent of instructor and chairperson of curriculum committee. Tutoring in Medieval Studies 20A and 20B, including leadership in small discussion groups affiliated with the course. May be repeated for credit for a total of 6 units. (P/NP grading only.)

198. Directed Group Study (1-5)
(P/NP grading only.)

199. Special Study for Advanced Undergraduates (1-5)
(P/NP grading only.)

Microbiology

Microbiology (A Graduate Group), on page 458; and Pathology, Microbiology, and Immunology (PMI), on page 582.

Microbiology and Molecular Genetics

Formerly Microbiology

[College of Biological Sciences]

Wolf-Dietrich Heyer, Ph.D., Chairperson of the Department

Department Office, 357 Briggs Hall
530-752-2626; http://microbiology.ucdavis.edu

Faculty

Primary Department Members
Jacqueline Barlow, Ph.D., Assistant Professor
Sean Collins, Ph.D., Assistant Professor
Scott C. Dawson, Ph.D., Associate Professor
Wolf-Dietrich Heyer, Ph.D., Professor
Neil Hunter, Ph.D., Professor
Michele M. Igo, Ph.D., Professor
Stephen C. Kowalczykowski, Ph.D., Distinguished Professor
Suji Lee, Ph.D., Professor
Miriam Martin, Ph.D., Lecturer
John C. Meeks, Ph.D., Research Professor
Douglas C. Nielsen, Ph.D., Research Professor
Rebecca Parales, Ph.D., Professor
Martin L. Privalsky, Ph.D., Distinguished Professor
Katherine Ralston, Ph.D., Assistant Professor
John R. Rath, Ph.D., Distinguished Professor
Michael A. Savageau, Ph.D., Distinguished Professor
Kazuhiko Shiozaki, Ph.D., Visiting Professor
Mitchell H. Singer, Ph.D., Professor
Valley, J. Stewart, Ph.D., Professor
Lileng Xu, Ph.D., Assistant Professor

Secondary Department Members
Sean Burgess, Ph.D., Professor
Jodi Nunnsi, Ph.D., Professor
Ted Powers, Ph.D., Professor

Emeriti Faculty

Stanley W. Arzt, Ph.D., Professor Emeritus
Paul Baumann, Ph.D., Professor Emeritus
John L. Ingraham, Ph.D., Professor Emeritus
Jaakko S. MacDonald, Ph.D., Professor Emeritus
David Pratt, Ph.D., Professor Emeritus
Chester W. Price, Ph.D., Professor Emeritus
Merna R. Villarejo, Ph.D., Professor Emerita
Mark L. Wheelis, Ph.D., Senior Lecturer Emeritus

Affiliated Faculty

Eric D. Mann, Ph.D., Lecturer

The Major Program

Microbiology is the branch of biology that deals with bacteria, yeasts and other fungi, algae, protozoa, and viruses. These microorganisms are ubiquitous in nature and play a crucial role in areas such as agriculture, biotechnology, ecology, medicine, and veterinary medicine. The field of microbiology contributes to areas of fundamental inquiry such as biochemistry, cell biology, evolution, genetics, molecular biology, pathogenesis, and physiology. The ease and power of simultaneous genetic and biochemical analysis of microbes led to the emergence of the new disciplines of molecular biology and molecular genetics, and spawned the new industry of biotechnology.

The Program. The Microbiology Undergraduate Program offers Bachelor of Science and Bachelor of Arts degrees in the College of Biological Sciences. Both degrees are designed to provide students with quantitative skills and knowledge across the breadth of Biological Sciences, while maintaining a focus on the biology of microorganisms. The B.S. degree offers more training in mathematics, biochemistry and laboratory methodology; the A.B. degree incorporates more exposure to the liberal arts. The choice of a major program and its suitability for particular career options should be discussed with a major adviser.

Career Alternatives. A bachelor’s degree in microbiology serves as the foundation for advanced study in microbiology, entry into the professional schools of all health sciences, or immediate employment in biotechnology, health care and food science industries.

A.B. Major Requirements:

Preparatory Subject Matter ................. 45-57
Biological Sciences 2A-2B-2C ............... 15
Chemistry 1A-1B, 1A-1B-2A ............... 10
Chemistry 8A-8B or 118A-118B-118C .... 11B8 ......... 6-12
Mathematics 17A-17B or 21A-21B ............ 8
Physics 1A-1B or 7A-7B-7C ................... 6-12

Depth Subject Matter ....................... 36
Biological Sciences 101, 105 (or 102+103) .......... 7.10
Microbiology 102, 104L, 105, 105L, 111 .............. 15
Select at least one course from each of the areas of study below.

Areas of Study:

1. Microbial Genetics: Microbiology 115, 150, 170, 210 ......... 3
2. Virology or Immunology: Microbiology 162, Medical Microbiology and Immunology 188, Pathology, Microbiology, and Immunology 126, 128, 130T, 136, 137, 138, 140 ............ 34

Additional course work, chosen from the list below, to achieve a total of 36 or more units. Upper division Microbiology courses not used in satisfaction of any other requirement; or Biological Sciences 104, 181, Food Science and Technology 104; Molecular and Cellular Biology 121, 182; Plant Pathology 130; Soil Science 111; or upper division courses in related fields, relevant to the student’s interest and chosen in consultation with the adviser. No more than three units of variable-unit courses (numbered 192, 198 or 199) may be used for credit in this category. Note: Although a course might be listed in more than one category, that course may satisfy only one requirement in the entire major.

Total Units for the Major .................. 81-93

B.S. Major Requirements:

Preparatory Subject Matter ................. 57-67
Biological Sciences 2A-2B-2C ............... 15
Chemistry 2A-2B-2C ....................... 15
Chemistry 8A-8B or 118A-118B-118C .... 11B8 ......... 6-12
Mathematics 17A-17B-17C or 21A-21B (21C recommended) ............ 8-12
Physics 7A-7B-7C .............................. 12
Microbiology 91 or 191 ...................... 12

Depth Subject Matter ....................... 45
Biological Sciences 101, 105 (or 102+103), 104 .............. 10-13
Statistics 100 or 102 ..................... 4
Microbiology 102, 104L, 105, 105L, 111 .............. 15
Select at least one course from each of the areas of study below.

Meteo