PHYSICS 238
POLITICAL SCIENCE 271
PSYCHOLOGY 240, 243, 252
PORTUGUESE 225
RELIGIOUS STUDIES 102, 104, 202, 203, 223, 226, 228, 229, 230, 231, 232, 239
SOCIOLOGY 104, 105, 201, 224, 226, 230, 263
SPANISH 243, 244, 274, 278
THEATRE 216, 276, 280
WOMEN'S AND GENDER STUDIES 150, 150W, 201, 210, 226, 239, 240, 242, 243, 244, 250, 265, 267, 269, 271, 273, 280

# College Program in Liberal Education

Students plan their early studies under the College Program in Liberal Education (CPLE). This program is designed to help students refine their skills and to bring them into contact with the variety of disciplines, subjects, and modes of thought essential to a liberally educated person.

The College Program sets requirements in *writing*, *mathematics*, and *foreign language* as well as in the following four areas:

History and Culture. 9 to 12 hours, including
American Component. 6 hours
International Component. 3 to 6 hours
Humanities. 9 hours
Natural Science. 11 hours, including
Basic Science. 8 hours
Science and the World. 3 hours
Social Science. 6 hours

#### 2007/2008 CPLE Approved Courses

The courses and test scores presented below are those approved for 2007/2008 for the CPLE. Because the program will continue to be refined in the future, it is likely that new courses will be added, that some courses now listed will be deleted, and that achievement levels will change.

Students who in 2007/2008 complete listed CPLE courses satisfactorily or who matriculate with achievement scores at the indicated levels will be certified as having satisfied the 2007/2008 CPLE requirements, regardless of any changes that may be made in the future. In subsequent years, a student's courses and test scores will qualify only if they appear on the program description for that year.

Although the College of Arts and Science provides assistance through the advisory system, various publications, and consultations in the Office of the Dean and the Office of Records and Institutional Research, each student is responsible for selecting a program of courses that fulfills CPLE requirements.

#### Skills

## Writing

Fluency in writing the English language is critical for success in college work and for effectiveness as an educated person in our society. (Indeed, it is so critical that the writing requirement is the only one in the CPLE that must be completed according to a schedule; see the last paragraph of this section on Writing.) Therefore all students, except those noted below, must first successfully complete English 100 (formerly 100W) and then complete two other W courses (courses that meet the writing requirement are indicated with a "W" in this catalog and in the *Schedule of Courses*).

Students who score 560 or above on the Writing section of the College Board SAT test are not required to take English 100 (indeed, it will not count toward their writing requirement, although they may take it as an elective) but must successfully complete two other W courses.

Students who score 760 or above on the Writing section of the College Board SAT test or who score a four or a five on an Advanced Placement Examination in English (either English language and composition or English literature and composition) are obligated to take one W course (other than English 100) at Vanderbilt. Transfer students who receive transfer credit for two or more W courses must, nevertheless, complete one W course (other than English 100) at Vanderbilt. Both groups must successfully complete this W course by the end of the first academic year at Vanderbilt.

Students required to take English 100 must complete that course and one additional writing course during the first year. Other students who are required to take writing courses must complete at least one during the first year, and all students must satisfy the full requirement before the end of the second year.

#### **Mathematics**

The methods of mathematics are important in the study of the natural and social sciences—and these methods are becoming increasingly useful in the humanities. As confirmation that they possess the necessary foundation in mathematics, all students are required either to have a College Board SAT Subject Test in Mathematics score of at least 620 (Level 1) or 570 (Level 2) or to complete one of the following alternatives:

- 1. Mathematics 127a–127b, or
- 2. Mathematics 140, or
- 3. Mathematics 155a, or
- 4. Mathematics 150a and Mathematics 180, or
- 5. A course sequence involving mathematics listed under the options in Mathematical Reasoning/Foreign Language below.

## Foreign Language

A basic capability in foreign language represents a beginning that can eventually lead to direct acquaintance with other literatures and cultures. It can also improve one's use of English. To demonstrate this beginning competence, all students are required to present a satisfactory score on an Achievement Test or SAT Subject Test in foreign language or to complete a first-year course sequence or a higher-level course in foreign language at Vanderbilt. Students who have at least the following scores on College Board SAT Subject Tests will have satisfied the first-year language requirement: French, 540; German, 470; Hebrew, 530; Italian, 540; Japanese (with listening), 440; Latin, 530; Spanish, 520. The Foreign Language requirement may be fulfilled by completing satisfactorily one of the following courses or a higher numbered course: Arabic 210b, Chinese 202, French 101b, German 102, Greek 202, Hebrew 111b, Italian 101b, Japanese 202, Latin 100, Latin 102, Portuguese 102, Russian 102, Spanish 102.

Further Study in Mathematical Reasoning or Foreign Language

All students should develop their abilities in abstract reasoning, symbolic manipulation, ordering, memory-work, and other types of analysis involving the expression of ideas in a way other than through the English language. Students therefore are required to complete at least one of the following two options:

- 1. Further Study in Mathematical Reasoning
  - a. Mathematics 150a-150b, or
  - b. Mathematics 155a–155b, or
  - c. Mathematics 140 plus Economics 150, or Mathematics 180, or Philosophy 202.
  - d. Mathematics 155a plus Economics 150, or Mathematics 180, or Philosophy 202.

#### 2. Further Study in Foreign Language

One of the third-semester or higher-level courses in a foreign language or a College Board SAT Subject Test score at or above the levels indicated: French, 590; German, 600; Hebrew, 570; Italian, 600; Japanese (with listening), 490; Latin, 630; Spanish, 630. Third-semester foreign language courses are as follows: Arabic 220a, Chinese 202, French 103, German 103, Greek 203, Hebrew 113a, Italian 103, Japanese 202, Latin 103, Portuguese 200, Russian 203, Spanish 104.

It is expected that a well-rounded student will elect to fulfill both of these options, for they are valuable in their own right as well as preparatory for advanced work in many fields. Students who want to be considered for membership in Phi Beta Kappa should also fulfill both options.

#### Areas of Study

Students must satisfy the requirements in all four areas described below. In designing their programs, students should be aware of the following restrictions: (a) no area requirement may be fulfilled by courses taken solely within one department; (b) no more than one course that satisfies the writing requirement may be offered in satisfaction of any area requirement; (c) courses listed in more than one area may be used to satisfy only one area requirement.

## History and Culture (9 to 12 hours)

Students will study the history and culture of their own and other societies. Certain course work in the humanities, social science, and natural science can contribute to such historical and cultural understanding. The requirements in History and Culture, however, demand a sustained consideration of the American national experience and a grasp of the thoughts, language, or experiences that have contributed to the formation of at least one other cultural or national tradition.

This requirement must be completed with courses from two or more departments. Credit for courses in a single department will not satisfy the requirement. Crosslisted courses may not be used to defeat this rule.

History and Culture: American Component (6 hours).

The American Component offers insights into the nature and development of distinctive aspects of the American experience. Courses that satisfy this requirement deal with important themes in the American experience, provide a historical perspective, and cover a substantial period of time.

American Studies 100, 100W Classical Studies 222 Communication Studies 220, 221 Economics 226, 245 English 212, 217, 263, 266 History 115W(50), 115W(51), 170, 171, 268, 269, 270, 279, 280, 282, 283, 285, 286, 287, 288, 290, 291 History of Art 240, 241 Music (MUSL) 147, 261 Political Science 100 Religious Studies 122 Sociology 217, 249, 251, 269 Theatre 204

History and Culture: International Component (3 to 6 hours).

The International Component expands cultural horizons by providing insight into the distinctive features and patterns of a major culture or cultural tradition, either contemporary or historical. Courses satisfying this requirement also provide perspective on American society by showing it against the background of a different age or culture.

Language is both a part of culture and a vehicle affording further insight into other cultures. The College Program requires a minimum level of competence in a foreign language, and offers incentives to continue language study to the intermediate level and beyond. The student will choose one of three options:

- 1. Completion of the intermediate level (or higher) in a foreign language and an additional approved course in the foreign language or a course taught in English dealing with the history or culture of that area or civilization.
- 2. One semester of full-time study in one of the study abroad programs listed in the chapter on Special Programs for Undergraduates in the front section of this catalog.
- 3. Two broadly conceived survey courses taught in English and dealing with a single major cultural area or tradition significantly different from that of the United States. Approved courses are listed below.

*International Component Option 1.* Completion of the intermediate level in a foreign language and one additional course in the literature, culture, or history of that area or civilization.

| Language   | Intermediate Level | Additional Course  |
|------------|--------------------|--|
| Chinese    | 202                | Chinese 241, 242; History 154, 155, 248;<br>History of Art 252; Political Science 216            |
| French     | 103                | French 207, 208, 215; History 234, 235, 236  |
| German     | 104                | German 221, 222; History 231   |
| Greek      | 204 or 240         | Greek 212; Classics 130, 204, 205, 208, 209; History 208, 209; History of Art 204, 205           |
| Hebrew     | 113b               | Religious Studies 112  |
| Italian    | 201                | History 232; Italian 230   |
| Japanese   | 202                | History 249; History of Art 253, 254;<br>Political Science 214; Religious Studies 246, 247       |
| Latin      | 104                | Latin 201, 202, 205, 206, 220; Classics 146, 206, 212, 213; History 210, 211; History of Art 206 |
| Portuguese | 200                | History 264  |
| Russian    | 204                | History 237, 238; Political Science 212, 235;<br>Sociology 273                                   |
| Spanish    | 104                | Spanish 203, 221, 223; History 258, 259  |

International Component Option 2. Full-time study in the fall or spring semester at one of the following programs: Classical Studies in Rome, Vanderbilt in France, Vanderbilt in Germany, Vanderbilt in Spain, or one of the Vanderbilt Programs in Argentina, Australia, Austria, Brazil, Chile, China, the Czech Republic, Denmark, the Dominican Republic, England, Ireland, Italy, Japan, Mexico, New Zealand, Russia, Scotland, South Africa, South Korea, and Taiwan. Also full-time summer programs in Humanities in London, International Studies in London, Vanderbilt in France, Vanderbilt in Berlin, Vanderbilt in Spain, Vanderbilt Program in Italy, and Vanderbilt Program in Mexico.

*International Component Option 3.* Two courses taught in English that survey the traditions and cultural achievements of one of the following six areas. Both courses must be taken in the same area.

Africa: Two courses from History 254, Music (MUSL) 171, Political Science 219, or Sociology 275

Classical Civilization: Two courses from Classics 130, 146, 208, 209, 210, 212, or 213, or Philosophy 210, except that 130 cannot be paired with 208 or 209

*Early Civilization*: Anthropology 103, 104, 245; History of Art 245 *East Asia*: Two courses from History 157; Music (MUSL) 170; Religious Studies 130

European History and Civilization: Two courses from History 100 or 115W (Ideas and Culture of Western Civilization to 1700), 101 or 115W (Ideas and Culture of Western Civilization since 1700); European Studies 201

Latin America: Two courses from Anthropology 210; History 160, 161; History of Art 234; Latin American Studies 201, 234; Music (MUSL) 250; Political Science 217; Sociology 277; Spanish/Portuguese 293 Middle Ages: Two courses from History 212, 213; Philosophy 211

### Humanities (9 hours)

Courses in the humanities seek to improve the student's understanding of the traditions of human thought and art, of the relationships among the various subjects in the humanities, and of the importance of humanistic concerns to the daily lives of all thoughtful persons. Nine hours of course work chosen from the approved list meet this requirement. Courses must be completed in more than one department. Crosslisted courses may not be used to defeat this rule.

Anthropology 130

Classics 115F (The Good Life), 115F (Music and Society: Views from Greece and Rome), 115F (The Intellectual Crisis of Athens), 115F (Women in Classical Literature), 130, 146, 150, 175, 204, 205, 206, 210 Communication Studies 210, 222

English 102W, 104W, 105W, 106W, 109W, 112W, 116W, 117W, 118W, 214a–214b, 215, 253, 257, 285

French 220

German 115F (Pioneers in Literary Modernism: Brecht, Kafka, and Rilke), 221–222

Greek 216

History 180

History of Art 110–111, 130, 204, 205, 206

Honors 181, 181W (open to College Scholars only)

Humanities 105W, 106W, 107W, 108W, 140, 141, 150, 151, 156, 175, 293 Interdisciplinary Studies 201

Music (MUSL) 115F (Music and Modernism), 115F (Shakespeare and Music), 140, 141, 160, 183, 200

Philosophy 100, 100W, 105, 115F (Concepts of God), 210, 211, 261, 262 Political Science 103

Portuguese 293

Religious Studies 106, 107, 108, 109, 110W, 112, 113, 114, 125, 130, 131, 132, 140, 205

Russian 171–172, 221–222 Spanish 203, 293 Theatre 100, 115F (Treasure or Trash), 201–202, 203 Women's and Gender Studies 150, 150W

### Natural Science (11 hours)

The natural sciences study entities, processes, and relations in the natural world. Courses in this area seek to improve the student's understanding of the basic principles that order natural phenomena, of the way these principles apply to various fields of knowledge and to technical developments, and of science itself as a way of examining and viewing the world. This requirement must be completed in more than one department (Physics and Astronomy are here considered to be different departments).

Natural Science: Basic Science Component (8 hours).

The goal of the Basic Science requirement is to give students sufficient foundation in science to enable them to (a) grasp some of the fundamental principles that order natural phenomena; (b) appreciate the scope, accuracy, and quantitative precision of scientific theories; and (c) understand the parts played by observation and experiment, deduction, imagination, accident, and influences from the larger society in the development of scientific theories.

Two 4-hour courses including laboratory or three lecture courses meet this requirement.

Astronomy 102, 103, 115F (Galaxies and Cosmologies), 115F (Birth, Life, and Death of Stars)
Biological Sciences 100, 110a–110b, 111a–111b, 218
Chemistry 100a–100b, 101a–101b, 102a and 104a, 102b and 104b
Earth and Environmental Sciences 101, 102, 103, 104, 111, 113
Honors 185 (open to College Scholars only)
Physics 105, 106, 110, 111, 116a–116b, 117a–117b, 121a–121b

*Natural Science: Science and Society Component (3 hours).* 

The objective of this requirement is to introduce students to scientific or technical knowledge and to relate that knowledge to the broader context of the world. Courses meeting this requirement are devoted to both (a) helping students comprehend how scientific knowledge advances and is cumulative, how new theories refute or supersede old ones, what scientific research can and cannot do; and (b) examining the effects of scientific knowledge and technology on human beings by showing the importance of science in our culture and exploring the historical effects of scientific theories and discoveries.

Astronomy 115F (Planetary Systems and the Search for Life in the Universe), 115F (Nature of Discovery), 130, 203
Biological Sciences 105, 115F (Biotechnology and the New GenEthics; Biological Clocks and Human Behavior; or Conservation Ecology), 249, 273

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Earth and Environmental Sciences 100, 115F (Controversies in the Geosciences or The Meaning of Fossils and the Age of the Earth), 108, 150, 201, 205

German 238, 241

History 202, 204

Honors 182 (open to College Scholars only)

Philosophy 244, 245

Physics 101, 115F (Atomic and Nuclear Physics), 115F (Lasers), 238

Religious Studies 202, 203, 241, 245

Sociology 115F (Environment and Society)

#### Social Science (6 hours)

The social sciences seek to understand human beings and their relation to the diverse structures and institutions of their social environment. The social sciences study subjects ranging from the individual to the primary group (such as the family), through more complex groups (religious, social, economic, and other institutional forms), to the political affiliations of modern states and the framework of an international order. Six hours of course work chosen from the approved list, and in more than one department, meet this requirement. Crosslisted courses may not be used to defeat this rule.

Anthropology 101, 102, 103, 104
Economics 100
Honors 183 (open to College Scholars only)
Political Science 100, 101, 102, 150
Psychology 101, 115F (General Psychology—not 115a)
Sociology 101, 102, 103, 237

### AXLE, CPLE, the Major, and the Optional Minor

Courses used to satisfy requirements of AXLE or the College Program may also be used to satisfy requirements of the major or the optional minor.

#### **Advanced Placement and Transfer Credit under AXLE and CPLE**

In general, only courses taken in the College of Arts and Science may be used to satisfy requirements of the College Program; but credit awarded to students through Advanced Placement Examinations, approved international examinations such as the International Baccalaureate, credit by examination, or transfer credit earned before admission to Vanderbilt may be used. Any college credit earned prior to graduation from high school may not be used to fulfill AXLE requirements. For students under the AXLE requirements, only courses taken in the College of Arts and Science may be used; however, transfer credit earned before admission to Vanderbilt may be used toward fulfilling AXLE requirements.